APPENDIX A

NOTICE OF PREPARATION/ INITIAL STUDY

Planning and Development Department
Land Use Planning Division

NOTICE OF PREPARATION (NOP) OF A ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE 2136-2154 SAN PABLO AVENUE MIXED-USE PROJECT

The City of Berkeley is preparing an Environmental Impact Report (EIR) for the 2136-2154 San Pablo Avenue Mixed-Use Project ("proposed project"), as described below, and is requesting comments on the scope and content of the EIR. The EIR will address the potential physical and environmental effects of the proposed project as the relate to cultural resources. An Initial Study has been prepared and is available at the following webpage: https://aca.cityofberkeley.info/CitizenAccess/Default.aspx. Click on Zoning tab; enter the address or project number; select the permit; click on the "Record Info" drop down menu; click on Attachments for a list of all application materials.

The City of Berkeley is the Lead Agency for the proposed project. This notice is being sent to the California State Clearinghouse, Alameda County Clerk, and other interested agencies and parties. Responses to this NOP and any questions or comments should be directed in writing to: *Sharon Gong, Senior Planner, Planning and Development Department, 1947 Center Street, 2nd Floor, Berkeley, CA 94704; or SGong@cityofberkeley.info*. Comments on the NOP must be received **on or before September 19, 2022**. Comments should focus on possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the proposed project as they relate to potential impacts to cultural resources.

FOCUSED EIR PUBLIC SCOPING MEETING: The City of Berkeley Zoning Adjustments Board Hearing will conduct a public scoping session and project Preview on **September 8, 2022,** starting at **7:00 PM.** The hearing will be virtual. Interested parties should visit the Zoning Adjustments Board webpage to confirm the meeting, time, date, and instructions on joining the meeting: https://www.cityofberkeley.info/zoningadjustmentsboard/.

PROJECT TITLE: 2136-2154 San Pablo Avenue Mixed-Use Project

PROJECT LOCATION: The project site is located at 2136-2154 San Pablo Avenue between the northwest and southwest neighborhoods in the city of Berkeley. The rectangular parcel (Assessor's Parcel Number [APN] 056-1977-011-01) encompasses 23,301 square feet (0.53 acres) and is located on the west side of San Pablo Avenue, mid-block between Addison Street to the north and Allston Way to the south. The site is bounded by a multi-story senior residential care facility to the north, currently under construction, San Pablo Avenue to the east, a commercial liquor store to the south, and

George Florence Park to the west. Figure 1 shows the project site's location and selected nearby land uses.

PROJECT APPLICANT: San Pablo Investors Two LLC, 200 Spectrum Center Drive, Suite 1450, Irvine, CA 92618

EXISTING CONDITIONS: The 0.54-acre project site is privately owned. The rectangular parcel, oriented north-to-south, is fully developed with an approximately 8,000-square-foot single-story main building with a parapet wall abutting San Pablo Avenue; it is setback from the south (side) and west (rear) lot lines and the resulting open areas are occupied by drive aisles, vehicle parking, and a temporary storage tent.

The concrete-walled building was designed by architects William E. Schirmer (1891-1957) and A.S. Bugbee (dates unknown) and constructed in 1923 in the Classical Revival/Beaux-Arts architectural style. The primary building elevation is divided equally into eight distinct storefronts.

PROJECT DESCRIPTION: The project would demolish the existing 9,000-square-foot one-story building on the project site and construct a new six-story mixed-use building. The proposed building has the following characteristics:

1. 6 stories and 69 feet 6 inches in height;
2. 123 dwelling units and three live/work units;
3. 82,083 square feet of gross floor area with Density Bonus;
4. A parking garage with 50 vehicle parking spaces;
5. A secure ground-floor bicycle storage room with long-term parking for 64 bicycles and short-term parking for eight bicycles; and
6. 6,319 square feet of open space.

The three live/work units and six lofts would be at the ground floor, with the live/work units fronting San Pablo Avenue and the loft units facing the back of the lot to the west. Each of the live/work units would have a mezzanine for exclusively residential space. In addition to housing the live/work and loft units, the ground floor would include a community room, lounge, mail room, trash room, parking garage, and bicycle storage room, as shown in Figure 3. Floors 2 through 5 would be comprised of 117 dwelling units, consisting of 36 studios, 76 one-bedroom units, and 5 two-bedroom units, as shown in Figure 5. The building's massing would step down from six stories at the front facing San Pablo Avenue to four stories at the rear towards the west. West-facing rooftop gardens would be accessed via the fourth and sixth floors. The proposed project also features a common open space area at the podium level (level 2) facing west the rear of the property.

REQUESTED APPROVALS: The proposed project is subject to approvals by the City of Berkeley's Zoning Adjustments Board. The project would require the following discretionary entitlements from the City of Berkeley:

- **Use Permit** under BMC Section 23.326.070.A to demolish a non-residential building or structure;
- **Use Permit** under BMC Section 23.204.140.B.2(a) to construct a mixed-use development over 20,000 square feet;
- **Use Permit** under BMC Table 23.204-1 for the construction of dwelling units in the C-W zone;
- **Use Permit** under BMC Table 23.204-2 to construct new gross floor area of 5,000 square feet or more;
- **Administrative Use Permit** under BMC Table 23.304-5 to construct architectural elements that exceed the District's height limit and represent no more than 15 percent of the average floor area of the building's floors;
- **Administrative Use Permit** under BMC Section 23.312.030.3.(a)i.to establish live-work units;
- **Design Review** under BMC Section 23.406.070.B.1.(a);
- **Design Review** under BMC Section 23E.08.020;
- **Building permit** and other related on-site and off-site work permits; and
- The project will likely require an Operation & Maintenance agreement for permanent BMPs to meet requirements of Provision C3 of the MRP.

POTENTIAL ENVIRONMENTAL EFFECTS: Based on the analysis and conclusions contained in the Initial Study, it is anticipated that the proposed project may result in potentially significant environmental effects to:

- Cultural Resources

Impacts related to Cultural Resources will be analyzed in the EIR. All other CEQA environmental topics were found in the Initial Study to have no impact, less than significant impacts, or less than significant impacts with mitigation incorporated. These include: Aesthetics; Agriculture and Forestry Resources; Air Quality; Biological Resources; Energy; Geology and Soils; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use Planning; Mineral Resources; Noise; Parks and Recreation; Population and Housing; Public Services; Recreation; Transportation; Tribal Cultural Resources; Utilities and Service Systems; and Wildfire.

The EIR will also examine a reasonable range of alternatives to the proposed project, including the CEQA-mandated No Project Alternative and other potential alternatives that may be capable of reducing or avoiding potential environmental effects while generally meeting the project objectives. The EIR will also analyze the cumulative impacts that could result with adoption and development under the proposed project.



Sharon Gong. Senior Planner

Date of Distribution: August 17, 2022

Attachment: Figure 1: Project Location

Figure 1: Project Location

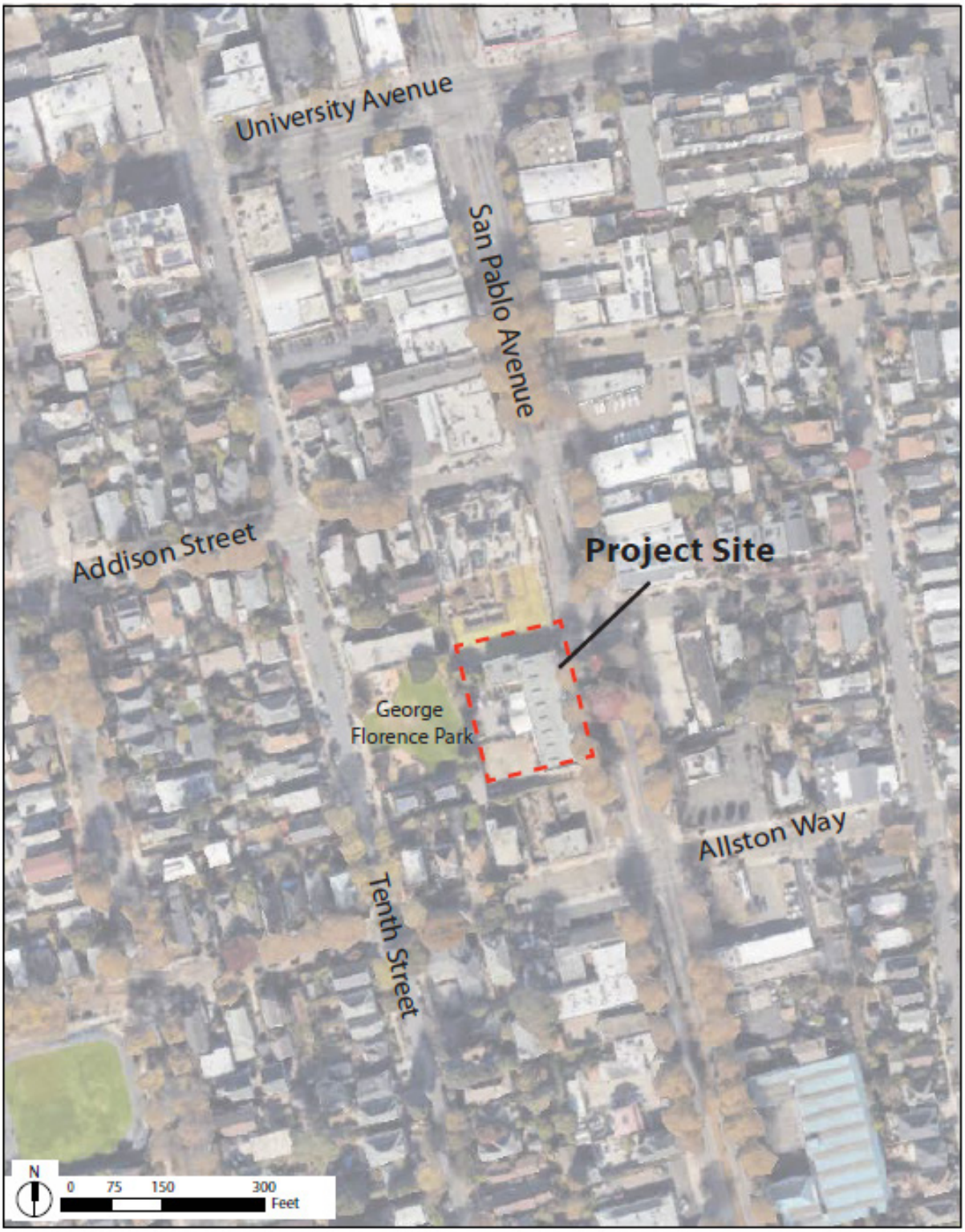


Figure 1
Project Location
2136-2154 San Pablo Avenue

2136-2154 San Pablo Avenue
INITIAL STUDY

Public Review Draft

City of Berkeley
Department of Planning and Development
1947 Center Street
Berkeley, CA 94704

August 2022

Updated December 2022 to provide supplemental information provided in the Cultural Resources Study prepared by Evans & De Shazo, Inc. (EDS) in 2022 and an Archaeological Ground-Penetrating Radar Survey completed by Byram Archaeological Consulting, LLC in 2022. Revisions are limited to Section V, Cultural Resources and are formatted in double underline for text additions and ~~strikethrough~~ for text deletions.

URBAN PLANNING PARTNERS INC.

TABLE OF CONTENTS

I. PROJECT DESCRIPTION 1

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 15

III. ENVIRONMENTAL CHECKLIST 17

- I. Aesthetics 17
- II. Agricultural and Forest Resources 18
- III. Air Quality 20
- IV. Biological Resources 34
- V. Cultural Resources 37
- VI. Energy 41
- VII. Geology and soils 42
- VIII. Greenhouse Gas Emissions 49
- IX. Hazards and Hazardous Materials 55
- X. Hydrology and Water Quality 65
- XI. Land Use and Planning 76
- XII. Mineral Resources 80
- XIII. Noise 81
- XIV. Parks and Recreation 92
- XV. Population and Housing 93
- XVI. Public Services 95
- XVII. Transportation 99
- XVIII. Tribal Cultural Resources 101
- XIX. Utilities and Service Systems 103
- XX. Wildfire 109
- XXI. Mandatory Findings of Significance 110

IV. LIST OF PREPARERS 113

V. REFERENCES 115

List of Tables

Table 1 Project Consistency with BAAQMD's 2017 CAP 22
Table 2 Summary of CalEEMod Land-Use Input Parameters 24
Table 3 Summary of CalEEMod Construction Input Parameters 24
Table 4 Estimated Construction Emissions (Pounds per Day) 26
Table 5 Summary of CalEEMod Operation Input 27
Table 6 Estimated Operation Emissions 28
Table 7 Health Risks at MEIR During Project Construction 31
Table 8 Summary of Cumulative Health Risks at the MEIR 33
Table 9 Project Consistency with the City of Berkeley's Climate Action Plan 54
Table 10 Exterior Noise Limits at Receiving Land Uses during Construction 83
Table 11 Exterior Noise Limits at Receiving Land Uses during Operation 84
Table 12 Potential Noise Impacts from Project Construction Equipment 85
Table 13 Vibration Criteria to Prevent Disturbance – RMS (VdB) 89
Table 14 Vibration Criteria to Prevent Damage to Structures 89
Table 15 Potential Vibration Disturbance 90
Table 16 Potential Vibration Damage to Buildings 90

List of Figures

Figure 1 Project Location 3
Figure 2 Existing Site Conditions 5
Figure 3 Ground Floor Site Plan 7
Figure 4 Mezzanine Level Site Plan 8
Figure 5 Levels 2-5 Site Plan 9
Figure 6 Proposed Elevations 10
Figure 7 Density Massing and Shadows 11

Appendices

Appendix A: CalEEMoD Output
Appendix B: Construction Noise Calculations

I. PROJECT DESCRIPTION

The following is an Initial Study and Environmental Checklist for the proposed 2136-2154 San Pablo Avenue Mixed-Use Project (project). Copies of all materials referenced in this report are available for review in the project file during regular business hours at the City of Berkeley Planning and Development Department, Land Use Planning Division, as well as on the City's website at: https://aca.cityofberkeley.info/CitizenAccess/Default.aspx. (Search in Zoning tab, select Permit, Records, Attachments.)

1. **Project Title:** 2136-2154 San Pablo Avenue Mixed-Use Project

2. **Lead Agency Name and Address:**
   City of Berkeley
   Department of Planning and Development, Land Use Division
   1947 Center Street, Second Floor
   Berkeley, CA 94704

3. **Contact Person and Phone Number:**
   Sharon Gong, Senior Planner
   (510) 981-7429
   SGong@cityofberkeley.info

4. **Project Sponsor's Name and Address:**
   San Pablo Investors Two LLC
   200 Spectrum Center Drive, Suite 1450
   Irvine, CA 92618

5. **General Plan Designation:** Avenue Commercial

6. **Zoning:** West Berkeley Commercial (C-W)

7. **Project Location:**

The project site is located at 2136-2154 San Pablo Avenue between the northwest and southwest neighborhoods in the city of Berkeley. The rectangular parcel (Assessor's Parcel Number [APN] 056-1977-011-01) encompasses 23,301 square feet (0.53 acres) and is located on the west side of San Pablo Avenue, mid-block between Addison Street to the north and Allston Way to the south. The site is bounded by a multi-story senior residential care facility to the north, currently under construction, San Pablo Avenue to the east, a commercial liquor store to the south, and George Florence Park to the west.

Major local roadways include San Pablo Avenue, directly abutting the project site to the east; University Avenue, one and a half blocks to the north of the project site; Dwight Way approximately ½-mile to the south; and Sixth Street, approximately ¼-mile to the west of the project site. Additionally, Sacramento Street is approximately ½-mile to the east, Ashby Avenue (CA-13) is 1 mile to the south, and Gilman Street is 1 mile to the north. Regional vehicular access to the site is provided by Interstate 80/580 via the University Avenue on- and off-ramps located approximately ½-mile west of the project site. Figure 1 depicts the project location.

The project site is in close proximity to many transit options. It is approximately 1 mile southwest of the North Berkeley Bay Area Rapid Transit (BART) station and approximately ½-mile east of the Berkeley Amtrak Station. It is also directly adjacent to several Alameda County Transit (AC Transit) bus lines. The nearest public bus stops are each approximately 0.1-mile away from the project site on San Pablo Avenue. AC Transit Line 72 runs along San Pablo Avenue in either direction, with stops at San Pablo and University Avenue, and at San Pablo and Allston Way. In addition, AC Transit Line 51B runs along University Avenue with several stops at the intersection of San Pablo Avenue and University Avenue, ¼-mile from the project site.

8. Environmental Setting:

The project is in an urban developed area. A four-story mixed-use senior residential care facility is under construction on the property north of the project site along San Pablo Avenue. A one-story auto-repair shop is directly across San Pablo Avenue from the project site, bordered by a single-story commercial building to the south. Directly south is a one-story commercial liquor store. The other properties along Allston Way south of the project site include two- and three-story residential buildings. Figure 2 shows the project site within the context of the existing surrounding land uses.

9. Description of Project:

The project site characteristics and the project are described below.

Existing Conditions

The 0.54-acre project site is privately owned. The rectangular parcel, oriented north-to-south, is fully developed with an approximately 8,000-square-foot single-story main building with a parapet wall abutting San Pablo Avenue; it is setback from the south (side) and west (rear) lot lines and the resulting open areas are occupied by drive aisles, vehicle parking, and a temporary storage tent.

The concrete-walled building was designed by architects William E. Schirmer (1891-1957) and A.S. Bugbee (dates unknown) and constructed in 1923 in the Classical Revival/Beaux-Arts architectural style. The primary building elevation is divided equally into eight distinct storefronts.

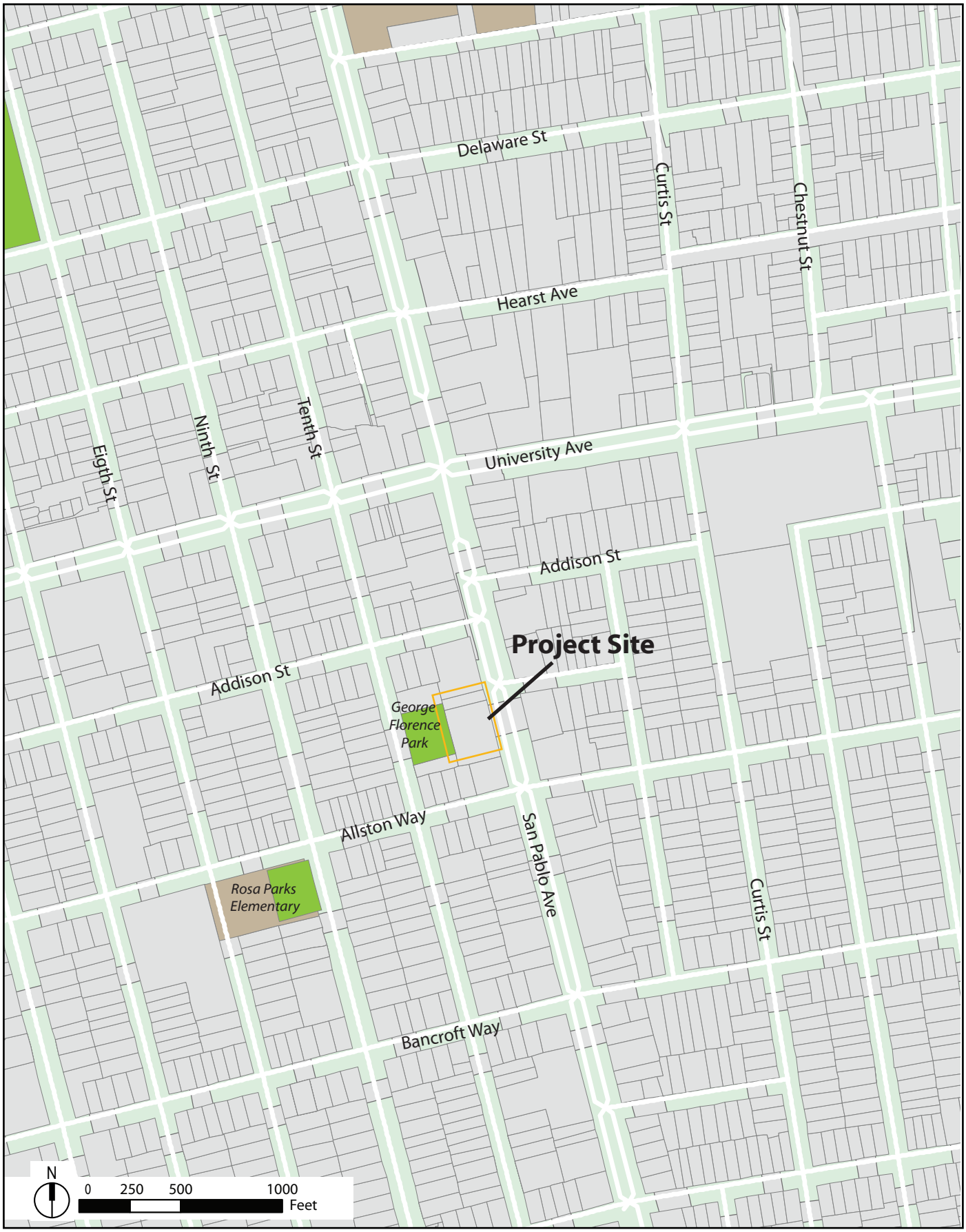


Figure 1
Project Location

bays separated by pilasters that resemble classical columns with ornamental bases and a three-part decorative entablature spanning the length of the façade. The building was designated a City of Berkeley Landmark in 2020 for its architectural merit, and therefore is considered a historic resource pursuant to the California Environmental Quality Act (CEQA).

An existing sidewalk runs along San Pablo Avenue on the east side of the project site. Existing landscaping includes three mature street trees along San Pablo Avenue. Vehicles can access the property from San Pablo Avenue via an existing curb cut at the southeast corner of the property. A metal gate spans the width of the existing driveway. Street parking is available on San Pablo Avenue and surrounding streets.

Project Characteristics

The project would demolish the existing 9,000-square-foot one-story building on the project site and construct a new six-story mixed-use building. The proposed building has the following characteristics:

1. Six stories and 69 feet 6 inches in height;
2. 123 dwelling units and three live-work units;
3. 82,824 square feet of gross floor area with Density Bonus;
4. A parking garage with 50 vehicle parking spaces;
5. A secure ground-floor bicycle storage room with long-term parking for 64 bicycles and short-term parking for eight bicycles; and
6. 6,319 square feet of open space.

The three live-work units and six lofts would be at the ground floor, with the live-work units fronting San Pablo Avenue and the loft units facing the back of the lot to the west. Each of the live-work units would have a mezzanine for exclusively residential space. In addition to housing the live work and loft units, the ground floor would include a community room, lounge, mail room, trash room, parking garage, and bicycle storage room, as shown in Figure 3. Floors 2 through 5 would be comprised of 117 dwelling units, consisting of 36 studios, 76 one-bedroom units, and 5 two-bedroom units, as shown in Figure 5. The building's massing would step down from six stories at the front facing San Pablo Avenue to four stories at the rear towards the west. West-facing rooftop gardens would be accessed via the fourth and sixth floors. The proposed project also features a common open space area at the podium level (level 2) facing west the rear of the property.



4 VIEW FROM SAN PABLO LOOKING SOUTH



2 VIEW FROM COWPER LOOKING WEST



3 VIEW FROM SAN PABLO LOOKING NORTH



1 GOOGLE EARTH BIRD'S EYE CONTEXT VIEW

Figure 2
Existing Site Conditions

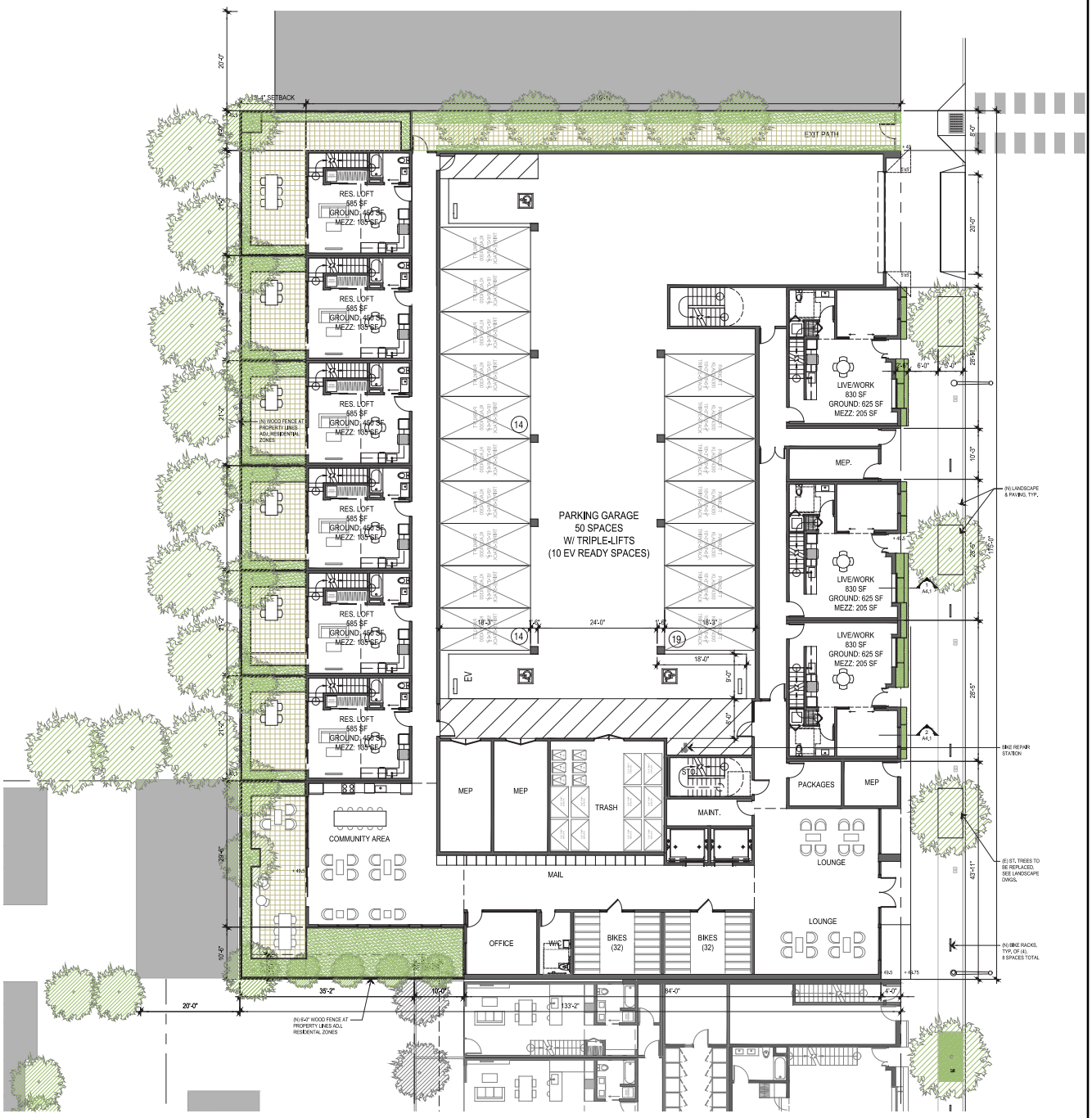
Automobile access to and from the parking garage would be via a driveway at the northeast corner of the building on San Pablo Avenue. Primary building access would be through the lobby on San Pablo Avenue. Pedestrian access between the garage and the lobby would be provided through a hallway on the ground level of the building. Figure 3 shows the location of these vehicular and pedestrian entrances.

The project would provide a total of 6,319 square feet of open space, consisting of 532 square feet of common usable open space at the ground level, and 2,345 square feet at the podium level (level 2). Two roof decks, one on the fourth floor's western edge overlooking 10th Street, and one on the eastern edge overlooking San Pablo Avenue, would provide another 2,802 square feet of common open space for building residents. Sixteen dwelling units would have 40-square-foot private patios, which would provide a total of 640 square feet of private open space.

Per California's State Density Bonus law, the inclusion of very low income (VLI) units entitles a project to a bonus in residential density and waivers and modifications to development standards.[1] The applicant has proposed a code-compliant base project of 95 dwelling units and three live-work units, with 10 units (10 percent of the base units, rounded up) affordable to VLI households. By providing 10 VLI units, the project is entitled to a 32.5 percent density increase (up to 31 additional units), for a total of 123 dwelling units. In order to accommodate the additional units while retaining a significant building setback from the lower-density homes to west, the project would have a right to, and would use, a waiver/modification of local development standards to increase the building's height to 69 feet 6 inches and six stories, above the maximum permitted in the C-W District (50 feet and four stories). Additionally, the project would use a waiver to accommodate the project's proposed floor area ratio (FAR) of 3.55, above the maximum permitted in the C-W District (3.0). The project would also request a concession to reduce the off-street automobile parking requirement by 17 parking spaces, which would allow the project to provide the proposed 50 off-street automobile parking spaces.

Construction is anticipated to last approximately 18 months.[2] The excavation depth would be a maximum of 9 feet, with up to approximately 2,473 cubic yards of soil excavated and off-hauled from the site. Groundwater depth at the site is estimated to be 8 to 24 feet below ground surface. No pile driving would occur or be required. The project would not include an emergency generator. Three existing street trees along San Pablo Avenue would be removed during project construction and replaced.

[1] California Government Code Section 65915-65918
[2] Heather Lee, Heather Lee Consulting. Personal communication with Alison Lenci at Urban Planning Partners, Inc., April 14,2022.



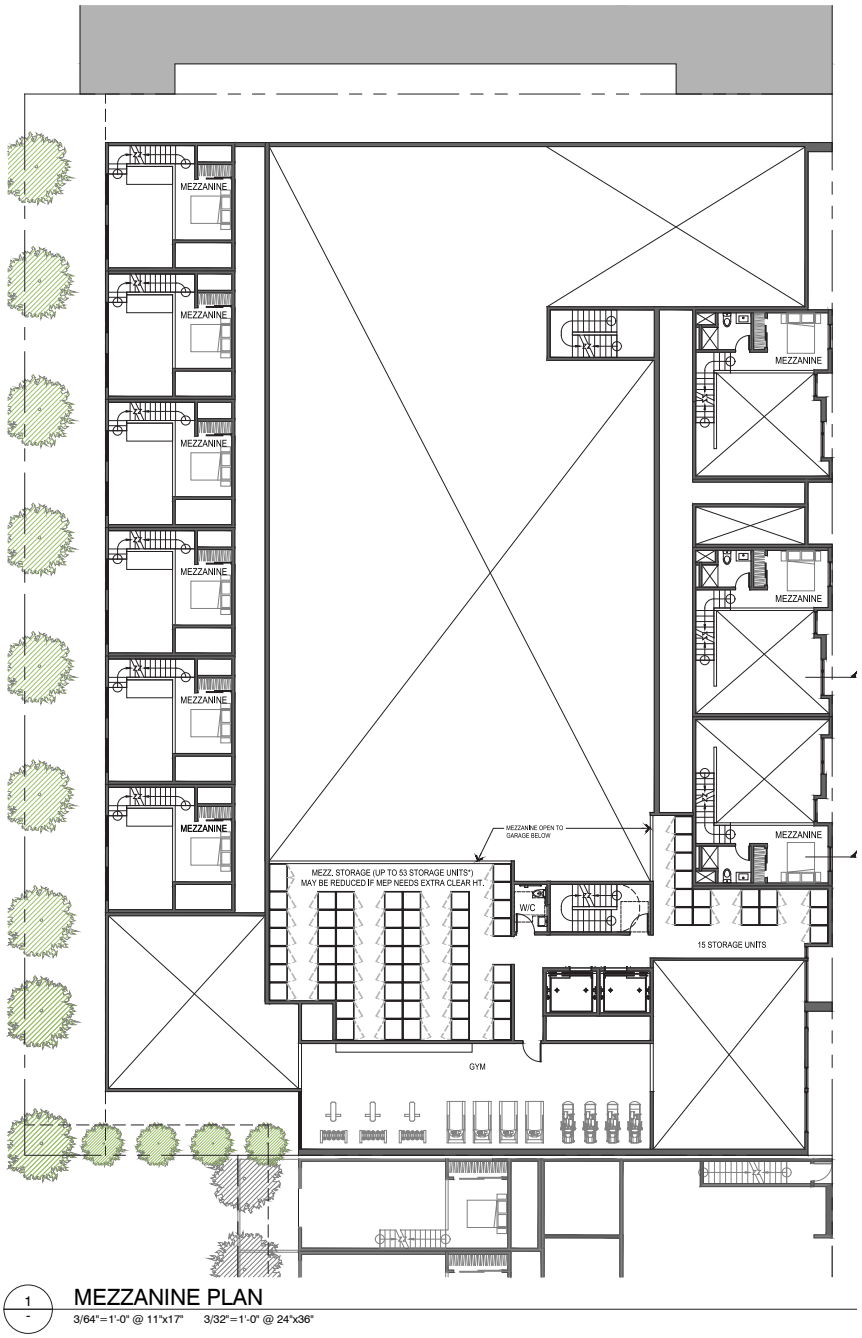
N

0 125 250 500 Feet

1 inch = 500 feet

Source: Trachtenberg Architects, 2021.

Figure 3
Ground Floor Site Plan



N

0 125 250 500 Feet

1 inch = 500 feet

Source: Trachtenberg Architects, 2021.

Figure 4
Mezzanine Level Site Plan



Source: Trachtenberg Architects, 2021.

Figure 5
Levels 2-5 Site Plan



0 4 8 16

2 - WEST ELEVATION
3/64"=1'-0" @ 11X17 3/32" = 1'-0" @ 24X36



0 4 8 16

1 - EAST ELEVATION
1/32"=1'-0" @ 11X17 2/32" = 1'-0" @ 24X36

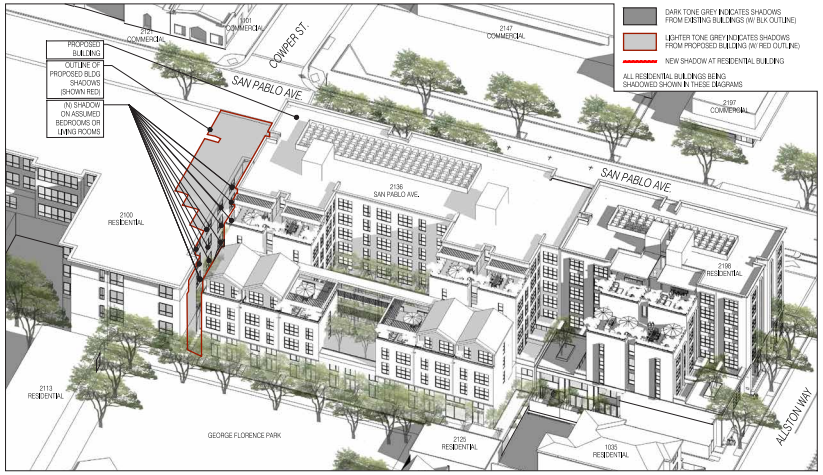


0 4 8 16

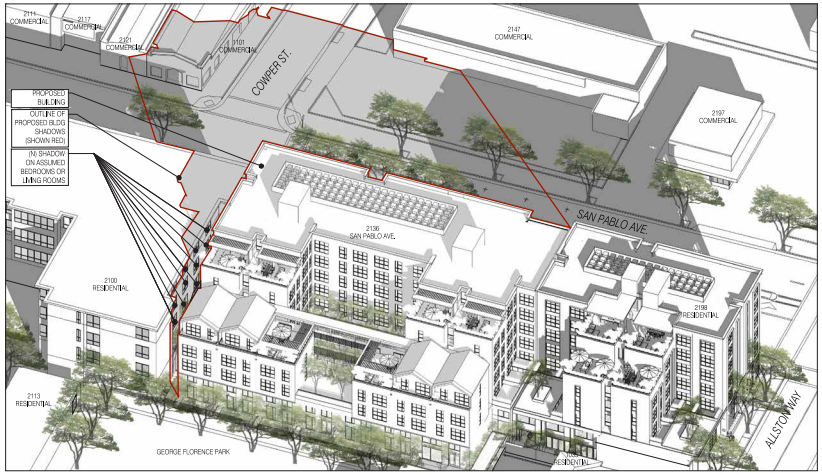
2 - NORTH ELEVATION
1/32"=1'-0" @ 11X17 2/32" = 1'-0" @ 24X36

Source: Trachtenberg Architects, 2021.

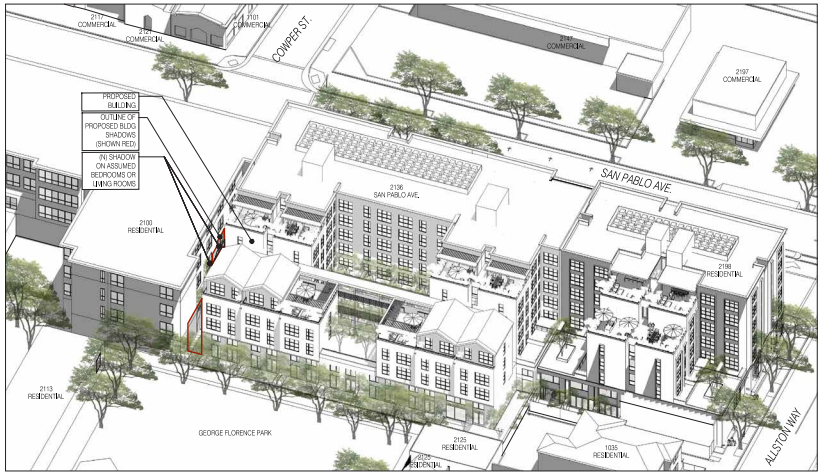
Figure 6
Proposed Elevations



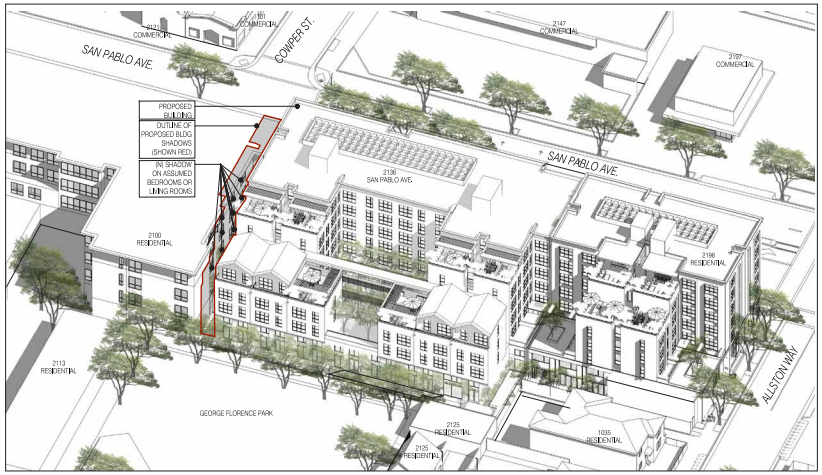
2 SHADOW STUDY AXONOMETRIC - DECEMBER 21ST: NOON
NTS



1 SHADOW STUDY AXONOMETRIC - DECEMBER 21ST: 2-HOURS BEFORE SUNSET
NTS



1 SHADOW STUDY AXONOMETRIC - JUNE 21ST: NOON
NTS



1 SHADOW STUDY AXONOMETRIC - OCT 4TH: NOON
NTS

Source: Trachtenberg Architects, 2021.

Figure 7
Density Massing and Shadows

Required Approvals from the City of Berkeley:

The following approvals by the City of Berkeley will be required for the project:

1. Use Permit under BMC Section 23.326.070.A to demolish a non-residential building or structure;
2. Use Permit under BMC Section 23.204.140.B.2(a) to construct a mixed-use development over 20,000 square feet;
3. Use Permit under BMC Table 23.204-1 for the construction of dwelling units in the C-W zone;
4. Use Permit under BMC Table 23.204-2 to construct new gross floor area of 5,000 square feet or more;
5. Administrative Use Permit under BMC Table 23.304-5 to construct architectural elements that exceed the District's height limit and represent no more than 15 percent of the average floor area of the building's floors;
6. Administrative Use Permit under BMC Section 23.312.030.3.(a)i. to establish live-work units;
7. Design Review under BMC Section 23.406.070.B.1.(a) ;
8. Building permit and other related on-site and off-site work permits; and
9. The project will likely require an Operation & Maintenance agreement for permanent BMPs to meet requirements of Provision C3 of the MRP.

10. Other Public Agencies Whose Approval is Required:

The City of Berkeley is the lead agency with responsibility for approving the project. Discretionary approval from other public agencies is not required, although some ministerial approvals from other public agencies may be needed, such as an encroachment permit from Caltrans for any work in the right-of-way or a water connection permit from East Bay Municipal Utility District (EBMUD).

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

The City of Berkeley started the AB 52 and SB 18 90-day Tribal Consultation opportunity period, according to Government Code Section 65352.3, by sending out certified written notices on February 10, 2022, inviting the appropriate tribes to consult on the project. The tribes that were notified are: Amah Mutsun Tribal Band of Mission San Juan Bautista, Costanoan Rumsen Carmel Tribe, Guidiville Indian Rancheria, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of the SF Bay Area, North Valley Yokuts Tribe, The Ohlone Indian Tribe, Wuksache Indian Tribe/Eshom Valley Band, and The Confederated Villages of Lisjan (Tribes). The

Confederated Villages of Lisjan tribe requested a consultation. On March 23, 2022, the first consultation meeting occurred between the Confederated Villages of Lisjan and the City of Berkeley; consultation is ongoing.

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

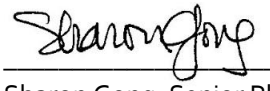
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- ❒ Aesthetics
- ❒ Agriculture and Forestry Resources
- ❒ Air Quality
- ❒ Biological Resources
- ■ Cultural Resources
- ❒ Energy
- ❒ Geology/Soils
- ❒ Greenhouse Gas Emissions
- ❒ Hazards and Hazardous Materials
- ❒ Hydrology/Water Quality
- ❒ Land Use/Planning
- ❒ Mineral Resources
- ❒ Noise
- ❒ Parks and Recreation
- ❒ Population/Housing
- ❒ Public Services
- ❒ Transportation
- ❒ Tribal Cultural Resources
- ❒ Utilities/Service Systems
- ❒ Wildfire
- ❒ 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.



Sharon Gong, Senior Planner

August 17, 2022
Date

III. ENVIRONMENTAL CHECKLIST

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 point). 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?	☐	☐	☒	☐

Public Resources Code Section 21099(d), effective January 1, 2014, provides that:

> "Aesthetic (…) impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment."

Accordingly, aesthetics is no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

- The project is a residential, mixed-use residential, or employment center.
- The project is on an infill site.[3]
- The project is in a transit priority area.[4]

[3] Public Resources Code Section 21099(a) defines an "infill site" as a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from parcels that are developed with qualified urban uses.

[4] Public Resources Code (PRC) Section 21099(a) defines a "transit priority area" as an area within ½-mile of an existing or planned major transit stop. Per Appendix M of the CEQA Guidelines, a "major transit stop" includes an intersection of two or more major bus routes with frequencies of service intervals of 15 minutes or less during the morning and afternoon peak commute periods.

The project meets all three criteria: (1) it is located in a transit priority area (less than 1/4-mile south of the intersection of San Pablo Avenue and University Avenue, which includes AC Transit Line 51B, which operates every 10 minutes during commute hours, and AC Transit Line 72, which operates every 15 minutes during commute hours); (2) the project site is an infill site within the urban area of the city of Berkeley and is currently developed with a commercial building and surface parking lot; and (3) the project is a residential mixed-use project.

Accordingly, aesthetic impacts are not significant in determining the project's significant impacts under CEQA. Project elements that would result in changes to aesthetic conditions at the site and vicinity, including but not limited to proposed building heights, architecture, and effects of new light and glare will, however, be considered as part of the planning review process, including review by the Design Review Committee and the Zoning Adjustments Board. Implementation of the City's standard condition of approval **Exterior Lighting** will also prevent excessive glare beyond the subject property. Refer to *Section XI, Land Use and Planning*, for a discussion of consistency with applicable policies related to urban design.

II. AGRICULTURAL AND FOREST RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 significantly environmental effects, lead agencies may refer to information compiled by the California department of forestry and fire protection regarding the state's inventory of forest land, including the forest and range assessment project and the forest legacy assessment project; and forest carbon measurement methodology provided in forest protocols adopted by the California air resources board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Governmental Code Section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

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?

No Impact. The project site is classified as "Urban and Built-Up Land" by the State Department of Conservation.[5] The Land Use Element of the City's General Plan does not designate land for agricultural use in the City of Berkeley. Neither the project site nor adjacent properties are enrolled in Williamson Act contracts, and the area does not support forest land.[6] No agricultural or forest resources are located on or near the project site. The surrounding area is developed with commercial and residential uses and the zoning districts in the area do not include agricultural uses as permissible. Therefore, development of the project would not convert agricultural land, including Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, nor forest land to non-forest use.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. Refer to discussion 2.a above.

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))?

No Impact. Refer to discussion 2.a above.

[5] California Department of Conservation (CDC), 2016. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Available online at: https://maps.conservation.ca.gov/dlrp/ciff/, accessed February 24, 2022.
[6] Alameda County Assessor's Office Parcel Viewer, 2022 . California Land Conservation Act. Williamson Act assessment value. Available online at http://gis.acgov.org/Html5Viewer/index.html?viewer=parcel_viewer, accessed May 5, 2022.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Refer to discussion 2.a above.

e) Involve other changes in the existing environment which, due to their location or mature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. Refer to discussion 2.a above.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 concen-trations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

All criteria air pollutants that would be generated by the project are associated with adverse health effects (e.g., cardiovascular disease and asthma). In accordance with the federal Clean Air Act and California Clean Air Act, areas in California are classified as either in attainment, maintenance (i.e., former nonattainment), or nonattainment of the National Ambient Air Quality Standards and California Ambient Air Quality Standards for each criteria air pollutant. These standards were designed to minimize health risks to communities exposed to criteria air pollutants. 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). The SFBAAB is designated as a nonattainment area for ozone, coarse particulate matter (PM10), and fine particulate matter (PM2.5).

Regional air pollutants, such as ozone, PM10, and PM2.5, can be formed and/or transported over long distances and affect ambient air quality far from the emissions source. Ground-level ozone is formed through reactions of nitrogen oxides (NOx) and reactive organic gases (ROG), and particulate matter is a complex mixture of solids and aerosols. The magnitude and location of

specific health effects from exposure to increased ozone, PM10, and PM2.5 concentrations are the result of emissions generated by numerous sources throughout the SFBAAB, as opposed to a single project. The BAAQMD has adopted thresholds of significance to assist lead agencies in the evaluation of ozone precursors (NOx and ROG), PM10, and PM2.5 emitted from individual projects that could have a cumulatively considerable contribution to adverse air quality in the SFBAAB. In accordance with the BAAQMD's current CEQA Air Quality Guidelines,[7] the project's average daily and annual emissions of NOx, ROG, PM10, and PM2.5 are estimated in this analysis and compared to the BAAQMD's threshold of significance to evaluate regional air quality impacts.

Localized air pollutants generally dissipate with distance from the emission source and can pose a health risk to nearby populations. Toxic air contaminants (TACs), such as diesel particulate matter (DPM), are considered localized pollutants. PM2.5 is also considered a localized air pollutant, in addition to being considered a regional air pollutant. Air dispersion models can be used to reliably quantify the health risks to nearby receptors associated with emissions of localized air pollutants from an individual project. The BAAQMD has adopted thresholds of significance to assist lead agencies in the evaluation of health risks for people exposed to TACs and PM2.5 emissions from an individual project. In accordance with the BAAQMD's current CEQA Air Quality Guidelines, the local concentrations of DPM and PM2.5 and associated health risks from the project are estimated in this analysis and compared to the BAAQMD's threshold of significance to evaluate local air quality impacts.

It should be noted that the specific health risks associated with regional air pollutant emissions from the proposed project are not estimated in this analysis. The BAAQMD and other air districts use regional air dispersion models to correlate the cumulative emissions of regional pollutants to potential community health effects. However, these dispersion models have limited sensitivity to the relatively small (or negligible) changes in criteria air pollutant concentrations associated with an individual project. Therefore, it is not feasible to provide reliable estimates of specific health risks associated with regional air pollutant emissions from the proposed project.

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant. 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, NOx, PM10, PM2.5, TACs, and greenhouse gases (GHGs). The 2017 CAP was developed based on a multi-pollutant evaluation method that incorporates well-established

[7] Bay Area Air Quality Management District (BAAQMD), 2017. CEQA Air Quality Guidelines, May.

studies and methods on quantifying the health benefits and 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 (MTC) and the Association of Bay Area Governments (ABAG).

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

1. Does the project include applicable control measures from the air quality plan?
2. Does the project disrupt or hinder implementation of any air quality plan control measures?
3. 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, buildings, energy, agriculture, natural and working lands, waste, water, and super-GHG pollutants (e.g., methane, black carbon, and fluorinated gases). As described in Table 1, 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 subsections b through d and *Section VIII, Greenhouse Gas Emissions*), the project supports the primary goals of the 2017 CAP. Therefore, based on the BAAQMD's CEQA Air Quality Guidelines, the project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

TABLE 1 PROJECT CONSISTENCY WITH BAAQMD'S 2017 CAP

Control Measures	Project Consistency
Stationary Source	The stationary source measures, which are designed to reduce emissions from stationary sources, are incorporated into rules adopted by the BAAQMD and then enforced by the BAAQMD's Permit and Inspection programs. Since the project would not include any stationary sources, the stationary source 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 would include live-work units and residential land uses that would be located near a public transportation center. In addition, the project would include on-site bike parking. This would encourage alternative modes of travel and reduce trips and vehicle miles traveled generated by the project. Therefore, the project would be consistent with the goals for transportation control in the 2017 CAP.
Energy	The energy control measures are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of fossil fuels 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. However, the project's electricity will be

TABLE 1 PROJECT CONSISTENCY WITH BAAQMD'S 2017 CAP

Control Measures	Project Consistency
	supplied by East Bay Community Energy (EBCE) which purchases power mainly from clean sources like hydropower, wind, and solar.[a]
Buildings	The BAAQMD has authority to regulate emissions from certain sources in buildings such as boilers and water heaters, but has limited authority to regulate buildings themselves. Therefore, the building control measures focus on working with local governments that have authority over local building codes to facilitate adoption of best practices and policies to control GHG emissions. In accordance with the City of Berkeley Natural Gas Prohibition & Reach Code for Electrification, the project would exceed the 2019 Title 24 energy efficiency standards through the construction of an all-electric building (i.e., no natural gas) and the incorporation of a rooftop solar photovoltaic system that provides at least 15 percent of the total roofing area. Therefore, the proposed project would not conflict with any of the Building Control Measures.
Agriculture	The agriculture control measures are designed to primarily reduce emissions of methane. Since the project does not include any agricultural activities, the agriculture control measures of the 2017 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 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 local 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: Bay Area Air Quality Management District (BAAQMD), 2017. CEQA Air Quality Guidelines, May.

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?

Less Than Significant. The SFBAAB is designated as a nonattainment area for ozone, PM10, and PM2.5. Construction and operation of the project would generate criteria pollutant emissions that could potentially impact regional air quality. The BAAQMD currently recommends using the most recent version of the California Emissions Estimator Model (CalEEMod Version 2020.4.0) to estimate construction and operational emissions of pollutants for a project. CalEEMod utilizes

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., type and power of construction equipment) are supported by substantial evidence provided by regulatory agencies and a combination of Statewide and regional surveys of existing land uses. The primary input data used to estimate emissions associated with construction and operation of the project are summarized in Table 2. A copy of the CalEEMod report for the project, which summarizes the input parameters, assumptions, and findings, is provided in Appendix A.

TABLE 2 SUMMARY OF CALEEMOD LAND-USE INPUT PARAMETERS

Land-Use Type	CalEEMod Land-Use Type	Units	Unit Amount
Residential Apartments	Apartments Mid Rise	Dwelling Units	123
		Square Feet	81,000
Parking Garage	Enclosed Parking Structure with Elevator	Spaces	50
		Square Feet	20,800
Live-Work	General Office Building	Square Feet	1,300

Source: California Emissions Estimator Model (CalEEMod), Appendix A.

Construction Emissions

Project construction would generate ROG, NOx, PM10, and PM2.5 from the exhaust of off-road construction equipment and on-road construction vehicles (worker vehicles, vendor trucks, and haul trucks). In addition, fugitive ROG emissions would result from the application of architectural coatings and paving during construction. Emissions of ROG, NOx, PM10, and PM2.5 during project construction were estimated using the CalEEMod input parameters summarized in Table 3.

TABLE 3 SUMMARY OF CALEEMOD CONSTRUCTION INPUT PARAMETERS

CalEEMod Input Category	Construction Assumptions and Changes to Default Data
Construction Phase	CalEEMod applies default equipment usage and construction phase lengths based on the findings of a survey of construction projects less than 5 acres. The survey results are organized in CalEEMod based on lot acreage size. While the project is approximately 0.53 acres, the multi-story development projects included in the construction survey were at least 2 acres. Therefore, the default equipment usage and construction phase lengths for a 2-acre lot were used to estimate the total hours of equipment operation (and associated emissions) required to construct the project.
Material Movement	Approximately 330 cubic yards of soil is expected to be hauled off-site.
Demolition	Approximately 8,050 square feet of existing buildings would be demolished and hauled off-site.

Notes: Demolition and material movement information provided by the project sponsor. Default CalEEMod data was used for all other parameters not described.
Source: California Emissions Estimator Model (CalEEMod), Appendix A.

It is assumed that project construction would begin in 2023 and last approximately 18 months , based on the CalEEMod default assumptions. Since the project construction would last more than 2 months, the **COA Air Quality – Diesel Particulate Matter during Construction** would apply to all off-road construction equipment used for the project. In accordance with this COA, the project must comply with at least one of the following measures:

1. The project applicant shall prepare a health risk assessment that demonstrates the project's on-site emissions of diesel particulate matter during construction will not exceed health risk screening criteria after a screening-level health risk assessment is conducted in accordance with current guidance from BAAQMD and OEHHA. The health risk assessment shall be submitted to the Land Use Planning Division for review and approval prior to the issuance of building permits; or
2. All construction equipment shall be equipped with Tier 2 or higher engines and the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by the California Air Resources Board (CARB). The equipment shall be properly maintained and tuned in accordance with manufacturer specifications.

In addition, a Construction Emissions Minimization Plan (Emissions Plan) shall be prepared that includes the following:

3. An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date.
4. A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract. The Emissions Plan shall be submitted to the Public Works Department for review and approval prior to the issuance of building permits.

In accordance with **COA Air Quality – Diesel Particulate Matter during Construction**, this analysis assumed off-road construction equipment utilized for this project will be equipped with Tier 4 engines.

The total emissions of ROG, NOx, and exhaust PM10 and PM2.5 estimated during construction with and without the implementation of **COA Air Quality – Diesel Particulate Matter during Construction** were averaged over the total working days (246 days) and compared to the BAAQMD's thresholds of significance in Table 4. For both scenarios, the project's estimated emissions for ROG, NOx, and exhaust PM10 and PM2.5 were below the applicable thresholds and, therefore, the air quality impact related to the generation of criteria pollutant emissions during construction would be less than significant.

TABLE 4 ESTIMATED CONSTRUCTION EMISSIONS (POUNDS PER DAY)

			Exhaust	
Emissions Scenario	**ROG**	**NOx**	**PM10**	**PM2.5**
Construction Emissions without COA Air Quality – Diesel Particulate Matter during Construction	6.4	12.2	0.51	0.49
Construction Emissions with COA Air Quality – Diesel Particulate Matter during Construction[a]	5.2	4.0	0.04	0.04
Thresholds of Significance	54	54	82	54
Exceed Threshold?	No	No	No	No

[a] The emissions scenario assumes the use of construction equipment with Tier 4 engines per COA Air Quality – Diesel Particulate Matter during Construction .
Source: California Emissions Estimator Model (CalEEMod), Appendix A.

Fugitive dust emissions of PM10 and PM2.5 would be generated by soil disturbance activities and demolition. The BAAQMD does not have a quantitative threshold of significance for fugitive dust PM10 and PM2.5 emissions; however, the BAAQMD considers implementation of best management practices (BMPs) to control dust during construction sufficient to reduce potential impacts to a less-than-significant level. Therefore, the air quality impact from dust generated during project construction would be less than significant with the implementation of **COA Public Works – Implement BAAQMD-Recommended Measures during Construction.**

In accordance with **COA Public Works – Implement BAAQMD-Recommended Measures during Construction,** the project will implement the following best management practices recommended by the BAAQMD to reduce fugitive dust emissions:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics

control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign 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 Air District's phone number shall also be visible to ensure compliance with applicable regulations.

With implementation of **COA Public Works – Implement BAAQMD-Recommended Measures during Construction** and **COA Air Quality – Diesel Particulate Matter during Construction,** construction of the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. Therefore, the air quality impact related to the generation of criteria pollutant emissions during project construction would be less than significant.

Operational Emissions

Project operation would generate criteria air pollutant emissions that could potentially affect regional air quality. The primary pollutant emissions of concern during project operation would be ROG, NOx, and exhaust PM10 and PM2.5 from mobile sources, energy use, and area sources (e.g., consumer products, architectural coatings, and landscape maintenance equipment). Project emissions were estimated for 2024, which is the earliest expected year of operation. Since statewide vehicle emission standards are required to improve over time in accordance with the Pavley (Assembly Bill (AB) 1493) and Low-Emission Vehicle regulations (Title 13, CCR, Section 1961.2), estimating emissions for the earliest year of operation provides the maximum expected annual emissions. Additional project-specific information used to calculate operation emissions in CalEEMod, including changes to default data, is summarized in Table 5.

TABLE 5 SUMMARY OF CALEEMOD OPERATION INPUT

CalEEMod Input Category	Operation Assumptions and Changes to Default Data
Vehicle Trips	Daily trip rates for each type of land use were adjusted according to the project Transportation Impact Analysis prepared by Abrams Associates Traffic Engineering, Inc. A trip reduction of 19 percent was applied to the default trip generation rate to account for conditions in West Berkeley along the San Pablo Avenue bus transit corridor.
Hearths	The project does not include woodstoves or wood-burning fireplaces.

Notes: Default CalEEMod data was used for all other parameters not described.
Source: California Emissions Estimator Model (CalEEMod), Appendix A.

The City of Berkeley has adopted the 2019 California Green Building Code (CALGreen), with local amendments. The project must implement mandatory measures from the CALGreen Code. While implementation of the CALGreen Code could potentially result in additional reductions in energy use, these potential reductions are not known at this time and therefore were not included in the analysis to estimate unmitigated emissions of criteria pollutants for the project. In addition, the building will be all electric to comply with the City of Berkeley's Natural Gas Prohibition & Reach Code; however, to be conservative, the default CalEEMod assumptions regarding natural gas use were applied.

The estimated emissions of criteria pollutants and precursors during the operational phase of the project are compared to the BAAQMD's thresholds of significance in Table 6. Because the estimated emissions for ROG, NOx, and exhaust PM10 and PM2.5 were below the thresholds, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment. Therefore, the air quality impact related to the generation of criteria pollutant emissions during the operational phase of the project would be less than significant.

TABLE 6 ESTIMATED OPERATION EMISSIONS

	Maximum Annual Emissions (Tons)				Average Daily Emissions (Pounds)			
Emissions Source	**ROG**	**NOx**	**Exhaust PM10**	**Exhaust PM2.5**	**ROG**	**NOx**	**Exhaust PM10**	**Exhaust PM2.5**
Area	0.41	0.01	0.01	0.01	2.25	0.07	0.03	0.03
Energy	0.01	0.05	<0.01	<0.01	0.03	0.28	0.02	0.02
Mobile	0.23	0.26	<0.01	<0.01	1.29	1.44	0.02	0.02
Total Project Emissions	0.7	0.3	<0.1	<0.1	3.6	1.8	0.1	0.1
Thresholds of Significance	10	10	15	10	54	54	82	54
Exceed Threshold?	No	No	No	No	No	No	No	No

Source: California Emissions Estimator Model (CalEEMod), Appendix A.

Cumulative Emissions

In developing thresholds of significance related to criteria air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. As discussed above, criteria pollutant and precursor emissions from construction and operation of the project are below the BAAQMD's thresholds of significance with implementation of the City's COAs. Therefore, criteria air pollutant emissions from the project would not be cumulatively considerable and the impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant. 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 to sensitive receptors located within 1,000 feet of a project. The project's potential impacts to sensitive receptors from emissions of TACs are discussed below.

Toxic Air Contaminants from Construction

Project construction would generate DPM and PM2.5 emissions from the exhaust of off-road diesel construction equipment. DPM and PM2.5 from diesel-powered engines are a complex mixture of soot, ash particulates, metallic abrasion particles, volatile organic compounds, and other components that can penetrate deeply into the lungs and contribute to a range of health problems. In 1998, CARB identified DPM from diesel-powered engines as a TAC based on its potential to cause cancer and other adverse health effects.[8]

The annual average concentrations of DPM and exhaust PM2.5 during construction were estimated within 1,000 feet of the project using the U.S. Environmental Protection Agency's Industrial Source Complex Short Term (ISCST3) air dispersion model. For this analysis, emissions of exhaust PM10 were used as a surrogate for DPM, which is a conservative assumption because more than 90 percent of DPM is less than 1 micron in diameter. The input parameters and assumptions used for estimating emission rates of DPM and PM2.5 from off-road diesel construction equipment are included in Appendix A.

Daily emissions from construction were assumed to occur over the permitted construction hours according to **COA Construction Hours**. 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.

A uniform grid of receptors spaced 10 meters apart with receptor heights of 1.8 meters (for ground-level receptors) 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 5 years of BAAQMD meteorological data from Station 2950 located about 4 miles northwest of the project.

[8] California Air Resources Board (CARB), 1998. Initial Statement of Reasons for Rulemaking; Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, June.

Based on the annual average concentrations of DPM and PM2.5 estimated using the air dispersion model (Appendix A), potential health risks were evaluated for the maximally exposed individual resident (MEIR) located adjacent of the project site to the southwest. Rosa Parks Elementary School is located about 780 feet southwest to the project site. Although schools are considered as sensitive receptors, health risks at the elementary school are not evaluated in this analysis because the potential health risks at the MEIR represent the worst-case scenario.

In accordance with guidance from the BAAQMD[9] and Office of Environmental Health Hazard Assessment (OEHHA),[10] the health risk assessment calculated the incremental increase in cancer risk and chronic hazard index (HI) to sensitive receptors from DPM emissions during construction. The acute HI for DPM was not calculated because an acute reference exposure level has not been approved by OEHHA and CARB, and the BAAQMD does not recommend analysis of acute non-cancer health hazards from construction activity. The annual average concentration of DPM at the MEIR was used to conservatively assess potential health risks to nearby sensitive receptors.

The incremental increase in cancer risk from on-site DPM emissions during construction was assessed for an infant exposed to DPM starting from infancy in the third trimester of pregnancy. This exposure scenario represents the most sensitive individual who could be exposed to adverse air quality conditions in the vicinity of the project. It was also assumed that the infant at the MEIR location would be exposed to an annual average DPM concentration over the entire estimated duration of construction, which is about 12 months; therefore, this analysis is conservative. The input parameters and results of the health risk assessment are included in Appendix A.

Table 7 summarizes the estimated health risks at the MEIR due to DPM and PM2.5 emissions from project construction, with and without the implementation of **COA Air Quality – Diesel Particulate Matter during Construction**,[11] and compares them to the BAAQMD's thresholds of significance. The estimated chronic HI for DPM was below the BAAQMD's threshold both with and without implementation of **COA Air Quality – Diesel Particulate Matter during Construction** during construction. However, without implementation of **COA Air Quality – Diesel Particulate Matter during Construction** the estimated cancer risk for DPM and annual average PM2.5 concentration from construction emissions would exceed the BAAQMD's thresholds of significance. Implementation of **COA Air Quality – Diesel Particulate Matter during Construction** would reduce the cancer risk and annual average PM2.5 by about 95 percent, which is well below the BAAQMD's thresholds of significance. Therefore, project construction would not expose sensitive receptors to substantial pollutant concentrations with

[9] Bay Area Air Quality Management District (BAAQMD), 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards, May.
[10] Office of Environmental Health Hazard Assessment (OEHHA), 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, May.
[11] In compliance with COA #49, it was assumed that construction equipment will be equipped with Tier 4 engines. If construction equipment with Tier 4 engines is not available, construction equipment with Tier 2 or higher engines and the most effective VDECS should be used.

implementation of **COA Air Quality – Diesel Particulate Matter during Construction** and the impact would be less than significant.

Toxic Air Contaminants from Operation

The project does not include operation of an emergency diesel generator or any other stationary sources of TACs. Therefore, project operations would have no impact on nearby sensitive receptors associated with the exposure to substantial pollutant concentrations.

TABLE 7 HEALTH RISKS AT MEIR DURING PROJECT CONSTRUCTION

	Diesel Particulate Matter		Exhaust PM2.5
Sensitive Receptor: Maximally Exposed Individual Resident	**Cancer Risk (per million)**	**Chronic Hazard Index**	**Annual Average Concentration (µg/m³)**
Health Risks without COA Air Quality – Diesel Particulate Matter during Construction	**70.6**	0.12	**0.58**
Health Risks with COA Air Quality – Diesel Particulate Matter during Construction	4.1	<0.01	0.04
BAAQMD's Thresholds of Significance	10	1	0.3

Note: µg/m³ = micrograms per cubic meter
Bold font with gray shading exceeds the threshold of significance.
Source: See Appendix A.

Cumulative Toxic Air Contaminants Emissions

In addition to a project's individual TAC emissions during construction and operation, the potential cumulative health risks to the MEIR from existing and reasonably foreseeable future sources of TACs were evaluated to represent the worst-case-exposure scenario for sensitive receptors in the project vicinity. 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 PM2.5 concentrations. The individual health risks associated with each source were summed to find the cumulative health risk at the MEIR. The supporting health risk calculations are included in Appendix A.

Based on the BAAQMD's 2018 permitted stationary source risk map, there is one existing stationary source within 1,000 feet of the MEIR: the Kirby Berkeley Gas Station (Plant 109474). Preliminary health risk screening values at the MEIR were determined using the 2018 permitted stationary source inventory data[12] and BAAQMD Health Risk Calculator (Beta Version 4.0). In addition, there are four future developments located within 1,000 feet of the MEIR that could require an emergency generator or other stationary source of TACs: 1110 University Avenue, 2198

[12] Bay Area Air Quality Management District (BAAQMD), 2022. CSV file for 2017 permitted stationary sources provided by Matthew Hanson, BAAQMD, to Yilin Tian, Baseline Environmental Consulting, April 14.

San Pablo Avenue, 2100 San Pablo Avenue, and 2147 San Pablo Avenue in Berkeley.[13] four stories to six storiesIt was conservatively assumed that all four developments would involve operation of an emergency diesel generator.

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. According to the BAAQMD's modeling of mobile sources, one major roadway (University Avenue) and one highway (San Pablo Avenue) are located within 1,000 feet of the MEIR.

Estimates of the cumulative health risks at the MEIR, with and without the implementation of **COA Air Quality – Diesel Particulate Matter during Construction**, are summarized and compared to the BAAQMD's cumulative thresholds of significance in Table 8. The estimated chronic HI was below the BAAQMD's cumulative threshold both with and without implementation of **COA Air Quality – Diesel Particulate Matter during Construction** during construction. However, without implementation of **COA #49,** the estimated cumulative cancer risk and annual average PM2.5 concentration would exceed the BAAQMD's cumulative thresholds of significance. Implementation of **COA Air Quality – Diesel Particulate Matter during Construction** would reduce the estimated cumulative cancer risk and annual average PM2.5 by about 66 percent, which is well below the BAAQMD's cumulative thresholds of significance. Therefore, the project's emissions of DPM and PM2.5 during construction and operation would have a less-than-significant cumulative impact on nearby sensitive receptors with implementation of **COA Air Quality – Diesel Particulate Matter during Construction.**

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

No Impact. Project construction and operation would not be expected to generate significant odors because the project would not include handling or generation of noxious materials. Therefore, the project would have no impact related to other emissions.

[13] Alison Lenci, Urban Planning Partners, Inc. Email communication with Yilin Tian at Baseline Environmental Consulting, March 10, 2022.

TABLE 8 SUMMARY OF CUMULATIVE HEALTH RISKS AT THE MEIR

Source	Source Type	Method Reference	Cancer Risk (per million)	Chronic Hazard Index	PM2.5 (µg/m³)
Project					
Construction without COA Air Quality – Diesel Particulate Matter during Construction	Diesel Exhaust		70.6	0.12	0.58
Construction with COA Air Quality – Diesel Particulate Matter during Construction	Diesel Exhaust		4.1	<0.01	0.04
Existing Stationary Sources					
Kirby Berkeley (Plant 109474)	Gas Dispensing Facility	1,2	0.34	<0.01	<0.01
Existing Mobile Sources					
Major Roadways	Mobile	3	1.2	NA	0.02
Highways	Mobile	3	14.0	NA	0.31
Future Stationary Sources					
1110 University Avenue, Berkeley	Diesel Exhaust	2,4	1.0	<0.01	<0.01
2198 San Pablo Avenue, Berkeley	Diesel Exhaust	2,4	8.5	<0.01	<0.01
2100 San Pablo Avenue, Berkeley	Diesel Exhaust	2,4	10.0	<0.01	<0.01
2147 San Pablo Avenue, Berkeley	Diesel Exhaust	2,4	5.0	<0.01	<0.01
Cumulative Health Risks without COA Air Quality – Diesel Particulate Matter during Construction			**111**	0.1	**0.9**
Cumulative Health Risks with COA Air Quality – Diesel Particulate Matter during Construction			44	<0.1	0.4
BAAQMD's Cumulative Thresholds			100	10.0	0.8

Notes: µg/m³ = micrograms per cubic meter; NA = not applicable; AADT=annual average daily traffic
Bold font with gray shading exceeds the threshold of significance.
Health risk screening values derived using the following BAAQMD tools and methodologies:
1) BAAQMD's 2018 stationary source emissions data.
2) BAAQMD's Gasoline Dispensing Facility (GDF) Distance Multiplier Tool.
3) BAAQMD Planning Healthy Places Highway, Major Street, and Rail health risk raster files, 2014.
4) BAAQMD's Diesel Internal Combustion Engine Distance Multiplier Tool.

IV. BIOLOGICAL RESOURCES

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

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?

No Impact. The project site is located in a densely urbanized area and is currently developed with a single-story commercial building and surface parking lot. The existing vegetation consists of several shrubs and medium-sized trees at the northwest corner of the site which serves as an existing parking lot and storage area, as well as three street trees (Sycamore) proposed to be removed and replaced with London Plane Trees. The project site is in an urban location and does not contain substantial areas of native vegetation or biological resources suitable to provide habitat for candidate, sensitive, or special status species, such as riparian habitat or other sensitive natural communities. The site contains minimal ground-level green-space and is fully developed. Common wildlife species that are adapted to urban environments are expected to

continue to use the site after redevelopment. The site is not occupied by, or suited for, any special-status species. Therefore, the project would not result in direct or indirect adverse effects on special-status plant or wildlife species.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?

No Impact. The project site is in a developed area of Berkeley and does not support any riparian habitats as there are no rivers or streams on or adjacent to the site. Development of the project would not directly or indirectly adversely affect any existing riparian habitat within this area. Furthermore, compliance with pre-existing stormwater quality requirements, including City COAs, as discussed in *Section X, Hydrology and Water Quality*, would further ensure that the project would not result in an adverse effect on any riparian habitat or other sensitive natural community; therefore, there would be no impact.

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?

No Impact. The project site is mostly impervious surface covered with building and concrete and asphalt and does not support any wetlands on-site nor is it adjacent to any wetlands. Therefore, the project would not impact any federally protected wetlands. Compliance with all applicable pre-existing requirements, including City COAs, associated with the protection of water quality in stormwater runoff would further ensure that the project would not directly impact wetlands within or beyond the project vicinity. Compliance with stormwater quality requirements is discussed in *Section X, Hydrology and Water Quality*.

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?

Less than Significant. The project site is entirely developed and is not located within a migratory wildlife movement corridor.[14] The species that use the project site are likely "generalists" that are adept at moving through urban landscapes. Trees generally have the potential to support nests of common native bird species. All native birds and their nests, regardless of their regulatory status, are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code.

The project site has existing vegetation including a few shrubs and medium-sized trees in the north-west corner of the site which would be removed during construction. There are three existing street trees (Sycamore) fronting San Pablo Avenue, which are proposed to be removed

[14] California Department of Fish and Wildlife Biographic Information and Observation System, 2022. Available online at: https://apps.wildlife.ca.gov/bios/?bookmark=648, accessed April 13, 2022.

and replaced, in compliance with the City's Street Tree Ordinance. The project would also plant approximately 16 trees in total along its northern, western, and southern property lines as visual screening and 12 trees in the landscaped open spaces at the podium level. Furthermore, the City's **Avoid Disturbance of Nesting Birds**, prohibits initial site disturbance activities, including vegetation and concrete removal, during the February 1 to August 30 bird nesting season, if feasible. If nesting season avoidance is not feasible, nesting bird surveys conducted by a qualified biologist are required and no ground-disturbing activities are permitted in proximity to the nests until they are no longer active.

The project site is in a busy urban area with little to no native vegetation, and the project would not decrease the total amount of vegetation on or adjacent to the site. Furthermore, the City's **COA Avoid Disturbance of Nesting Birds** would ensure avoidance of effects to nesting birds during site disturbance activities. For all these reasons, the project would have a less-than-significant impact on the movement of native or resident migratory wildlife.

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

Less than Significant. According to Policy EM-31 of the City's General Plan, new development should contribute to the urban forest through preservation of existing on-site trees, wherever feasible; replacement of trees on site; and the addition of new trees in the public right-of-way. The three existing street trees on the sidewalk of San Pablo Avenue adjacent to the project site will be replaced. The street trees that would be removed from the project site are not coast live oaks and are therefore not protected by the City's moratorium on the removal of coast live oak trees. The removal of the existing street trees in the public right-of-way will be subject to the standard City permit review. Therefore, the project would have a less-than-significant impact related to policies or ordinances protecting biological resources.

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?

No Impact. The project is not located within the boundaries of an adopted conservation plan. Therefore, the project would not conflict with the provisions of a habitat conservation plan, natural community plan, or other approved local, regional, or State habitat conservation plan.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to 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?	☐	☐	☒	☐

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Potentially Significant Impact. CEQA Section 15064.5 defines a historical resource has a resource listed in or determined to be eligible for listing in the California Register of Historical Resources; listed in a local register of historical places; or as determined by the Lead Agency. The project site currently contains a structure that was built in 1923 and has been designated as a City of Berkeley Landmark. Furthermore, an Historic Resources Evaluation (HRE) was prepared and identified the project as eligible for listing in the California Register of Historical Resources under Criterion 3, Design/Construction, as its architecture embodies distinctive characteristics of its type and period. For these reasons, the subject building qualifies an "historic resource" under CEQA.

The project proposes the complete demolition of the subject building and is therefore presumed to change the significance of the historical resource. For this reason, it is considered to be a potentially significant impact and will be evaluated in greater detail in the Focused EIR.

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

Less Than Significant. Prehistoric and historic archaeological deposits may be buried within the project area. As a result, ground-disturbing activities associated with new construction and related underground utility installation could result in the destruction or disturbance of unidentified subsurface archaeological resources, which would represent a potentially significant impact. ~~Such impacts are unlikely here because the site has been previously developed and other development has occurred around the project area without such discoveries.~~

A NWIC/CHRIS records search, literature review, pedestrian field survey, and a Ground Penetrating Radar (GPR) survey were completed for the project area. The NWIC/CHRIS records search identified 41 previous cultural resources studies previously conducted within 0.5 miles of the project area and determined that 22 previously recorded cultural resources are located within 0.5-miles of the project area; however, no archaeological resources were identified within the project area from the records search, Native American Sacred Lands inventory, pedestrian field survey, or GPR survey. No known archaeological resources have been identified within the project area that would be eligible for listing under NRHP or CRHR criteria. Therefore, the project would not directly cause a substantial adverse change in the significance of a known archaeological resource pursuant to CEQA Guidelines Section 15064.5.

EDS also reviewed various historical maps and aerial photographs dating between 1859 and 1965 and other information to determine past land use activities within the project area and the potential/sensitivity for buried historic-period archaeological, and reviewed geologic, soils, and geoarchaeological information to assess the potential/sensitivity for buried Native American archaeological resources. Based on a review of historical maps and aerial photographs and other information, it appears that the project area has a low potential/sensitivity for buried historic-period archaeological resources due to the lack of buildings, particularly residential buildings, within the project area prior to construction of the 1923 storefront commercial building. Based on a review of geologic, soils, and geoarchaeological information, it appears that the project area has a moderate potential/sensitivity for buried Native American archaeological material, due to Strawberry Creek, at a distance of 650 feet to the north of the project area, and the San Francisco Bay historic tidal marsh, at a distance of 0.5 miles to the east, and the presence of two previously recorded Native American archaeological sites within 700 feet of the project area; this is despite previous disturbance of soils within the project area (i.e., Urban land soils), which could contain redeposited cultural material, diagnostic artifacts and/or partially intact features. The subsequent GPR survey did not indicate the presence of any buried archaeological resources. Nevertheless, there is the potential to encounter previously unidentified archaeological resources within the project area. The following COA for projects in the City of Berkeley would ensure impacts to any potential archeological resources would be reduced to a less-than-significant level:

Standard Conditions of Approval

COA Archaeological Resources. Pursuant to CEQA Guidelines section 15064.5(f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore:

A. In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist, historian or paleontologist to assess the significance of the find.

B. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified professional would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Berkeley. All significant cultural materials discovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by the qualified professional according to current professional standards.

C. In considering any suggested measure proposed by the qualified professional, the project applicant shall determine whether avoidance is necessary or feasible in light of factors such as project design, costs, and other considerations.

D. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation measures for cultural resources is carried out.

E. If significant archaeological resources are recovered, the qualified professional shall prepare a report on the findings for submittal to the Northwest Information Center.

In addition the Cultural Resource Study recommends the following to further minimize the effects of this less-than-significant impact:

Recommendation CUL-1: Cultural Resources Awareness Training. Prior to commencement of Project-related, ground-disturbing activities, the project supervisors, equipment operators, and other members of the construction team overseeing or conducting ground-disturbing activities shall be familiarized with the types of archaeological resources that could be encountered during ground-disturbing activities and the procedures to follow if subsurface archaeological resources are unearthed during construction. To accomplish this, a Secretary of Interior qualified archaeologist shall conduct one or more preconstruction Cultural Resource Awareness Trainings as needed to familiarize supervisors, contractors, and equipment operators with the potential to encounter archaeological resources, the types of archaeological material that could be encountered, and procedures to follow if archaeological deposits and/or artifacts are encountered during construction.

Recommendation CUL-2: Implementation of Inadvertent Discovery Protocols. If an archaeological deposit is encountered during Project-related, ground-disturbing activities, all work within 50 feet of the discovery shall be redirected until the archaeologist assesses the find, consults with agencies as appropriate, and makes recommendations for the treatment of the discovery. If avoidance of the archaeological deposit is not feasible, the archaeological deposit shall be evaluated for its eligibility for listing in the CRHR. If the deposit is found to be eligible, adverse effects shall be mitigated. Mitigation may include excavation of the archaeological deposit in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation that may include data recovery using standard archaeological field methods and procedures; laboratory and technical analyses of recovered

archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and a technical data recovery report at a curation facility. Upon completion of the assessment, the archaeologist shall prepare a report to document the methods and results of the assessment. The report shall be submitted to the Project applicant, City of Berkeley, and the NWIC/CHRIS upon completion of the resource assessment.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant. The potential to uncover Native American human remains exists in locations throughout California. The site has been previously developed and other development has occurred around the project area and discoveries are not expected. Although not anticipated, human remains could be identified during site-preparations and grading activities, resulting in a potentially significant impact to Native American cultural resources. The following COA for projects in the City of Berkeley would ensure impacts to human remains would be reduced to a less-than-significant level:

Standard Conditions of Approval

COA Human Remains. In the event that human skeletal remains are uncovered at the project site during ground-disturbing activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

VI. ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in 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?	☐	☐	☐	☒

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant. The project would involve the demolition of an existing commercial structure and surface parking lot and the construction of a six-story mixed-use building. Both the demolition and construction would require the use of construction equipment and generate construction-related vehicle trips that would combust fuel. The use of fuel to operate the construction equipment and construction-related vehicles is necessary to construct the project and is not wasteful. In addition, compliance with the City's **COA Construction Noise Reduction Program**, as described in *Section XIII, Noise*, would prohibit unnecessary idling of internal combustion engines, preventing wasteful use of energy resources during construction.

Additionally, the project would be required to comply with Berkeley's local amendments to the California State Green Building Code (CALGreen) (Berkeley Green Code, BMC 19.37), which ensures that the project would be operated in an energy efficient manager. The project will also need to comply with **COA Prohibition of Natural Gas Infrastructure in New Buildings**. Moreover, as described above, the project will likely be served by EBCE's 100 Renewable product and will be required to have a solar PV system as per **COA Solar Photovoltaic (Solar PV)**.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. As discussed in subsection a), the project would comply with the energy efficiency requirements in Berkeley's local amendments to CALGreen, **COA Prohibition of Natural Gas Infrastructure in New Buildings**. In addition, the project will likely be served by EBCE's 100 Renewable product and have solar PV system.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or unique geologic feature?	☐	☐	☒	☐

The information presented in this section is based on data and findings provided in the Geotechnical Investigation[15] prepared for the project, as well as maps and technical reports from United States Geological Survey (USGS), and the California Geological Survey (CGS), and other sources.

[15] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23.

The project site is located within the central portion of the Coast Ranges geomorphic province[16] which includes numerous active faults. CGS defines an active fault as one that has ruptured during the Holocene Epoch (i.e., the last 11,000 years). Active faults near the project site include the Hayward fault (approximately 2 miles east of the project site), Concord fault (16 miles east of the project site), and the San Andreas fault (approximately 17 miles west of the project site). The Working Group on California Earthquake Probabilities and USGS have predicted a 22 percent probability of a Moment Magnitude (M_w)[17] 6.7 or greater earthquake on the Northern San Andreas Fault between 2014 and 2043, a 33 percent chance on the Hayward Fault, and a total probability of 72 percent that an earthquake of M_w 6.7 or greater will occur on one of the regional Bay Area faults during that time.[18]

CGS has mapped Seismic Hazard Zones that delineate areas susceptible to liquefactions that require additional investigation to determine the extent and magnitude of potential ground failure. According to the CGS, the southwest portion of the project site is located within a Seismic Hazard Zone for liquefaction.[19] The Seismic Hazards Mapping Act requires that site-specific geotechnical investigations be conducted that identify the hazard and provide recommendations prior to permit approval for most developments designed for human occupancy within the Zones of Required Investigation. In addition, as specified under Policy S-14 in the Disaster Preparedness and Safety Element of the City of Berkeley General Plan,[20] soil investigation and/or geotechnical reports in conjunction with development and/or redevelopment would be required on sites within designated hazard zones such as areas with high potential for soil erosion, landslide, fault rupture, liquefaction, and other soil-related constraints.

Furthermore, the City has adopted the 2019 California Building Code (CBC, Title 24, California Code of Regulations), with local amendments, which provides for stringent construction requirements on projects in areas of high seismic risk. The design and construction is required to conform with, or exceed, current best standards for earthquake resistant construction in accordance with the 2019 CBC (or more recent applicable code) and with the generally accepted standards of geotechnical practice for seismic design in Northern California.

The California Supreme Court concluded in its *CBIA v. BAAQMD* decision that "CEQA generally does not require an analysis of how existing environmental conditions will affect a project's future users or residents." With this ruling, CEQA no longer considers the impact of the environment on

[16] A geomorphic province is a naturally defined geologic region that displays a distinct combination of features based on geology, faults, topography, and climate. Eleven geomorphic provinces are recognized in California.
[17] M_W, as opposed to Richter Magnitude, is now commonly used to characterize seismic events. M_W is determined from the physical size (area) of the rupture of the fault plane, the amount of horizontal and/or vertical displacement along the fault plane, and the resistance to rupture of the rock type along the fault.
[18] United States Geological Survey (USGS), 2016. Earthquake Outlook for the San Francisco Bay Region 2014-2043, USGS Fact Sheet 2016-3020. Revised August.
[19] California Geological Survey, 2003. Seismic Hazard Zones; Oakland West Quadrangle, February 14.
[20] City of Berkeley, 2001. City of Berkeley General Plan.

a project (such as the impact of existing seismic hazards on new project occupants) to be an environmental impact, unless the project could exacerbate an existing environmental hazard. The project would not change existing seismic hazards and, therefore, would not exacerbate existing hazards related to surface fault rupture and seismic ground shaking. As such, the following discussions of seismic hazards are provided for informational purposes only.

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.

No Impact. Surface fault rupture occurs when the ground surface is broken due to fault movement during an earthquake and is generally expected to occur along active fault traces. Areas susceptible to fault rupture are delineated by the CGS Alquist-Priolo Earthquake Fault Zones. The Alquist-Priolo Earthquake Fault Zoning Act's (Act) main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires specific geological investigations prior to certain kinds of 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 an Alquist-Priolo Earthquake Fault Zone.[21] Therefore, the project would have no impact on people and structures related to fault rupture.

ii. Strong seismic ground shaking?

Less Than Significant. 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 Geotechnical Investigation[22] characterized the potential level of ground shaking at the project site to be strong to very strong during a large earthquake on one of the nearby faults.

The risk of ground shaking impacts is reduced through adherence to the design and materials standards set forth in the California Building Code and recommendations in a site-specific geotechnical investigation and/or geotechnical report (which is required by the Seismic Hazards Mapping Act and City of Berkeley General Plan).

The 2019 CBC requires that a site-specific geotechnical investigation be conducted and a geohazard report be prepared by a licensed professional for all proposed construction to evaluate

[21] California Department of Conservation (CDC), 1982. Special Studies Zones; Oakland West, January 1.
[22] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23.

geologic and seismic hazards, except for one-story, wood-frame and light-steel-frame buildings that are located outside of the Earthquake Fault Zones or Seismic Hazard Zones as shown in the CGS maps with less than or equal to 4,000 square feet in floor area. The purpose of a site-specific geotechnical investigation is to identify seismic and geologic conditions that may need to be addressed to ensure safety and adequate performance of improvements, such as ground shaking, liquefaction, differential settlement, and expansive soils. Based on the conditions of the site, the building code requires specific design parameters to ensure construction of buildings that will resist collapse during an earthquake. These design parameters do not protect buildings from all earthquake shaking hazards but are designed to reduce hazards to a manageable level. Requirements for the geotechnical investigation are presented in Chapter 16 "Structural Design" and Chapter 18 "Soils and Foundation" of the 2019 CBC.

The Geotechnical Investigation[23] was prepared for the project in 2019 and provided seismic design recommendations in accordance with the 2016 CBC. The 2019 CBC became effective in 2020, therefore compliance with the City's building code would require the seismic design recommendations in the Geotechnical Investigation to be updated, as necessary, to comply with the 2019 CBC.

Compliance with the 2019 CBC would ensure that the project would be designed and constructed in accordance with geotechnical recommendations to account for and withstand seismic and geologic hazards that could have adverse effects on the project, thereby minimizing exposure of people and structures to substantial risk of loss, injury, or death during a large regional earthquake.

It is acknowledged that seismic hazards cannot be completely eliminated, even with implementation of site-specific geotechnical investigation/design measures and advanced building practices. However, the seismic design standards of the 2019 CBC are intended to prevent catastrophic building failure in the most severe earthquakes currently anticipated. Therefore, compliance with the existing building codes, described above, would ensure that potential impacts related to seismic ground shaking would be reduced to the extent feasible and this impact is considered less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant. The potential for different types of seismic-related ground failure to occur at the project site is discussed below.

[23] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23.

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. 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 significant amounts of fines (silt and clay) may also liquefy. The southwest portion of the project site is located within a CGS-designated Liquefaction Hazard Zone.[24]

The Geotechnical Investigation concluded that the soils underlying the project site are sufficiently cohesive and/or sufficiently dense such that the potential for liquefaction is low and liquefaction induced settlement would be negligible.[25] Therefore, potential impacts related to liquefaction would be less than significant.

Lateral Spreading

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an excavation boundary. In a lateral spread failure, a layer of ground at the surface is carried on an underlying layer of liquefied material over a nearly flat surface toward a river channel or other bank. The lateral spreading hazard tends to mirror the liquefaction hazard for a site (assuming a free face is located nearby). Lateral spreading would not occur at the project site because the potential for liquefaction is low and the project site is relatively flat and there are no slopes or free faces on or adjacent to the project site.

Cyclic Densification

Settlement can occur when non-saturated, cohesionless soil is densified by earthquake vibrations (known as cyclic densification). The Geotechnical Investigation concluded the potential for cyclic densification at the project site is very low due to the cohesion of the soil above the groundwater table.[26] Therefore, potential impacts related to cyclic densification would be less than significant.

iv. Landslides?

No Impact. 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 relatively flat and,

[24] California Geological Survey, 2003. Seismic Hazard Zones; Oakland West Quadrangle, February 14.
[25] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23.
[26] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23.

according to CGS, the project site is not located within a Seismic Hazard Zone for seismically induced landslides.[27] Therefore, no impacts related to landslides would occur.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant. The topography of the project site and surroundings is relatively level, which reduced the likelihood of erosion. 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, Hydrology and Water Quality*, compliance with the City's COAs related to water quality and stormwater protection during construction would ensure that the project would have a less-than-significant impact related to erosion or the loss of topsoil. This includes the City's **COA Stormwater Requirements** that requires the applicant to prepare an erosion prevention plan, which must be approved by the City, for any soil disturbance activities during the rainy season. During operation of the project, the project site would be covered with buildings, pavement surfaces, and landscaping, which would minimize post-development erosion. Therefore, the potential impacts related to substantial erosion or loss of topsoil would be less than significant.

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?

Less Than Significant. As discussed above, potential hazards related to unstable soil including liquefaction, lateral spreading, cyclic densification, and landslides are not a concern for the project site due to the cohesion and density of the soil and the flat topography of the area.

Subsidence or Collapse

Subsidence or collapse can result from the removal of subsurface water resulting in either catastrophic or gradual depression of the surface elevation of the project site. The Geotechnical Investigation indicated that the historic high groundwater level at the project site is approximately 5 feet below ground surface.[28] As a result, temporary dewatering from excavations could be necessary during construction. The temporary dewatering of excavations (if needed) would be the only removal of subsurface water associated with the project, and would be temporary, localized, and of relatively low magnitude. Additionally, land subsidence generally does not occur in response to declines in shallow groundwater;[29] therefore, potential impacts related to subsidence or soil collapse would be less than significant.

[27] California Geological Survey, 2003. Seismic Hazard Zones; Oakland West Quadrangle, February 14.
[28] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23.
[29] EBMUD GSA and City of Hayward GSA, 2022. East Bay Plan Subbasin, Groundwater Sustainability Plan.

Consolidation

Consolidation (or static settlement) of soils is a process by which the soil volume decreases as water is expelled from saturated soils or loose compressible soils consolidate under static loads. As the water moves out from the pore space of the soil, the solid particles realign into a denser configuration which results in settlement. Consolidation typically occurs from new buildings or fill materials being placed over compressible soils. The Geotechnical Investigation concluded that total settlement of the proposed building supported on properly designed and constructed footings would be less than 1 inch and differential settlement would be less than ½-inch over 30 feet.[30] Compliance with the mandatory building code structural specifications and adherence to the geotechnical recommendations would ensure that potential impacts related to consolidation would be less than significant.

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?

Less Than Significant. 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. The Geotechnical Investigation indicated that near-surface highly expansive clay was encountered to depths up to about 5 feet at the project site. The Geotechnical Investigation provided recommendations for the design and construction of the project to mitigate the effects of the expansive clay including moisture-conditioning the expansive soil below slabs, providing non-expansive soil below slabs, and supporting foundations below the zone of severe moisture change. The Geotechnical Investigation also indicated that some species of high water-demand trees can induce ground-surface settlement by drawing water from the expansive clay, causing it to shrink, and recommended that certain types of trees not be planted within 25 feet of the proposed building to prevent this potential issue.[31] Implementation of the recommendations in the Geotechnical Investigation would ensure that potential impacts related to expansive soils would be less than significant.

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 waste water?

No Impact. The project would not involve the use of septic tanks or alternative wastewater disposal systems; therefore, no impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

[30] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23

[31] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23

Less Than Significant. There are no unique geologic features at the project site and there is no evidence or previous findings of paleontological resources in the vicinity of the project site.[32] However, demolition, site preparation, and construction activities associated with the project could adversely impact previously unidentified fossils. Such fossils, if present, could be identified during excavation. Development projects that require a use permit are required to comply with the following COA that addresses this potential impact. Implementation of this COA would ensure that this impact would be less than significant.

Standard Conditions of Approval:

COA Paleontological Resources. Ongoing throughout demolition, grading, and/or construction). In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards [SVP 1995,1996]). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.

VIII. GREENHOUSE GAS EMISSIONS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

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. According to the California Air Resources Board (CARB), some of the potential effects of

[32] City of Berkeley, 2010. West Berkeley Project Draft Environmental Impact Report, January.

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.[33]

The primary GHG emissions of concern are carbon dioxide, methane, and nitrous oxide. Other GHGs of concern include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, but their contribution to climate change is less than one percent of the total GHGs that are well mixed.[34] Each GHG has a different global warming potential. As a result, emissions of GHGs are reported in metric tons of carbon dioxide equivalents (CO_2e), where each GHG is weighted by its global warming potential relative to carbon dioxide. Carbon dioxide emissions dominate the GHG inventory in the SFBAAB, accounting for more than 90 percent of the total CO_2e emissions reported.

For the State of California, Executive Order S-3-05 issued in 2005 set a GHG reduction goal of 80 percent below 1990 levels by 2050. The California State Legislature passed the California Global Warming Solutions Act (AB 32) in 2006, which requires the CARB to develop and implement regulatory and market mechanisms that will reduce GHG emissions to 1990 levels by 2020. In December 2008, CARB adopted the Scoping Plan, which outlines a statewide strategy to achieve AB 32 goals. 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 2017, CARB updated the Scoping Plan to identify measures to meet the 2030 target and adopted the revised Scoping Plan (2017 Scoping Plan). In 2018, Executive Order B-55-18 set a statewide target to achieve carbon neutrality no later than 2045.

The project 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). The BAAQMD established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the SFBAAB. The BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

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

[33] California Air Resources Board (CARB), 2017. The 2017 Climate Change Scoping Plan Update, January 20.
[34] Intergovernmental Panel on Climate Change (IPCC), 2013. Climate Change 2013, the Physical Science Basis.

Less Than Significant. The proposed project would generate temporary GHG emissions during construction activities and long-term GHG emissions during project operations related to the direct and indirect use of fossil fuels such as electricity, diesel, and gasoline.

Construction Emissions

Construction activities could generate GHG emissions from several sources, such as the operation of on-site heavy construction equipment and off-site construction vehicle trips, vendor vehicle trips, and worker commute trips. The BAAQMD does not recommend a threshold of significance for GHG emissions during construction because there is not sufficient evidence to determine a level at which temporary construction emissions are significant. A construction contractor would also have no incentive to waste fuel during construction and, therefore, it is generally assumed that GHG emissions during construction would be minimized to the maximum extent feasible. Furthermore, implementation of **COA Public Works – Implement BAAQMD-Recommended Measures during Construction**, as mentioned in *Section III, Air Quality,* will limit the idling times for off-road construction equipment to 5 minutes to reduce emissions from diesel-fueled vehicles. Therefore, GHG emissions from construction of the project would have a less-than-significant impact on the environment.

Operational Emissions

The BAAQMD is in the process of updating their CEQA Guidelines to include revised significance thresholds to evaluate the statewide GHG reduction goal for 2030 (based on SB 32) and goal of carbon neutrality by 2045 (based on EO B-55-18). In February 2022, BAAQMD released the Draft Justification Report[35] which provides the framework for analyzing climate impacts under CEQA and thresholds of significance for typical land use development projects (Updated Thresholds). The Updated Threshold for land use projects identify design elements that an individual project needs to incorporate to do its "fair share" in achieving the State's goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. The Updated Thresholds for land use projects include two options, as presented below:

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

Buildings

The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

Transportation

[35] Bay Area Air Quality Management District (BAAQMD), 2022. Draft Justification Report – CEQA Thresholds for Evaluating the Significance of Climate Impacts, February.

a) Achieve compliance with electric vehicle (EV) requirements in the most recently adopted version of CALGreen Tier 2.
b) Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
    i. Residential projects: 15 percent below the existing VMT per capita
    ii. Office projects: 15 percent below the existing VMT per employee
    iii. Retail projects: no net increase in existing VMT.

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

Chapter 12.80 of the City of Berkeley Municipal Codes (Natural Gas Ban) prohibits natural gas infrastructure, typically used to provide energy for water and space heating, cooking, and other uses, in new buildings of all types. For building energy use, the project is required to comply with the Natural Gas Ban (BMC Chapter 12.80), per **COA Prohibition of Natural Gas Infrastructure in New Buildings**. The project will not include natural gas appliances or natural gas plumbing.

In 2019, the City of Berkeley adopted a local amendment to the Berkeley Energy Code (Reach Code), which exceeds the energy efficiency standards of the California Energy Code (also known as Title 24) through all-electric construction or mixed-fuel construction. The Reach Code also extends solar photovoltaic system requirements to nonresidential buildings, high-rise residential and hotels/motels. This project is required to comply with the Reach Code. The project would exceed the 2019 Title 24 energy efficiency standards through the use of an all-electric building design and the installation of a rooftop solar photovoltaic system that covers at least 15 percent of the roof area subject to the exceptions in Section 110.10 of the Energy Code **(COA Solar Photovoltaic (Solar PV)).** Therefore, the project will not result in any wasteful, inefficient, or unnecessary electrical usage.

For EV charging infrastructure, the 2019 California Green Building Code (CALGreen) Tier 2 requires that 20 percent of total parking spaces should be "EV Capable" for multifamily dwellings. In accordance with **COA Electric Vehicle (EV) Charging**, the project must install a raceway, wiring, and power for each unit to allow for future Level 2 (240 Volt/40 amp) plug-in EV charging system installation as specified by the Berkeley Green Code (BMC Section 19.37.040). Therefore, the project will meet the CALGreen Tier 2 EV requirement.

For transportation, based on the City of Berkeley VMT Criteria and Thresholds,[36] the project is located in a transit priority area (TPA) and also is within an area with an average VMT per resident that is at least 15 percent below the Bay Area average. The project is located near the North Berkeley BART station and numerous bus stops. According to the VMT analysis conducted by Abrams Associate,[37] the project would have a less than significant impact on VMT in the area. Therefore, the project will meet the VMT reduction target for residential projects.

In summary, the project is designed to incorporate the four design elements identified in the Updated Thresholds. Therefore, the project will contribute its "fair share" to achieve the State's climate goals and have a less-than-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?

Less Than Significant. Since the GHG emissions from the project would be below the BAAQMD Updated Threshold, it is also consistent, and not in fundamental conflict, with the SB 32 and the 2017 Scoping Plan.

The City of Berkeley created and adopted its Climate Action Plan in 2009 (2009 CAP) in order to implement measures to reduce GHG emissions and adapt to climate change. The Climate Action Plan sets the target of reducing the City of Berkeley's GHG emissions by 33 percent below the 2000 levels by 2020, and by 80 percent below the 2000 levels by 2050. The Climate Action Plan includes detailed recommendations for sustainable transportation and land use, building energy use, waste reduction and recycling, community outreach and empowerment, and preparing for climate change impacts. In addition, the City of Berkeley has added additional climate goals to support the implementation of the 2009 CAP. In 2018, the City of Berkeley adopted a resolution establishing the goal of becoming a fossil fuel-free city and a Climate Emergency Declaration. In 2021, the City adopted a resolution to commit to the C40 Race to Zero Campaign and to achieve net-zero carbon emissions no later than 2045. The City of Berkeley has adopted the 2019 California Green Building Code and California Energy Code, with local amendments.

The project's consistency with the applicable goals in the Climate Action Plan is summarized in Table 9.

[36] City of Berkeley, 2020. City of Berkeley VMT Criteria and Thresholds, June 29
[37] Abrams Associates, 2021. VMT Analysis for the 2136 San Pablo Avenue Project, June 8

TABLE 9 PROJECT CONSISTENCY WITH THE CITY OF BERKELEY'S CLIMATE ACTION PLAN

Chapter	Climate Action Plan Goals	Project Consistency
Transportation and Land Use	Increase cycling and walking	The project would provide live-work units and on-site bicycle parking.
	Increase compact development patterns (especially along transit corridors)	The project would provide high-density housing in a transit priority area. The project would achieve an approximate 19 percent reduction in daily trip generation due to its location near major public transit stops.
	Increase the usage of low-carbon vehicles	The project includes 50 parking spaces, including 10 EV Charger Ready parking spaces. The project will meet the CALGreen Tier 2 EV requirement.
Building and Energy Use	Make green building business as usual in the new construction and remodel market	The project would exceed the 2019 Title 24 energy efficiency standards through all-electric construction. The project is required to meet the energy efficiency standards in CALGreen Code as adopted and amended under Chapter 19.37 of the Berkeley Green Code. In addition, the project is required to comply with BMC Chapter 19.37 and reduce cement in concrete mix design by at least 25 percent, per COA Low-Carbon Concrete (#52).
	Increase residential and commercial renewable energy use	The project includes the installation of a solar photovoltaic system that covers at least 15 percent of the rooftop area to provide renewable energy on-site.
Waste Reduction and Recycling	Increase residential composting, recycling, and source reduction	The project is required to comply with the CALGreen Code. The project is also required to include recycling and organics collection areas for occupants in accordance with the Alameda County Mandatory Recycling Ordinance (ACWMA Ordinance 2012-01).
	Increase recycling and construction and demolition (C&D) debris	Per COA Construction and Demolition Diversion (#20), the project would include a Construction Waste Management Plan that meets the requirements of BMC Chapter 19.37 including 100 percent diversion of asphalt, concrete, excavated soil and land-clearing debris and a minimum 65 percent diversion of other nonhazardous construction and demolition waste.
Additional	Becoming fossil free city; Commitment to carbon neutrality by 2045; and the Climate Emergency declaration	The project will not include natural gas infrastructure and is consistent with the goal to become a fossil-free city. Since the project is below the BAAQMD Updated Threshold, the project does its "fair share" in achieving the State's GHG reduction goals and carbon neutrality by 2045.

Source: Berkeley, 2009. Climate Action Plan, June.

As demonstrated in Table 9, the project is consistent with, and would not hinder, the GHG reduction goals set forth in the City of Berkeley's Climate Action Plan. In addition to the conditions of approval mentioned above, the project is subject to the following conditions, which would reduce GHG emissions: **COA Water Efficient Landscaping, COA Recycling and Organics Collection, COA Exterior Lighting**, and **COA Transportation Demand Management**.

Overall, the project would not conflict with applicable GHG plans, policies or regulations and this impact would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-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?	☐	☐	☐	☒

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

Less Than Significant. The project proposes the demolition of the existing structures on the project site and construction of a new mixed-use residential building with a ground floor parking garage, live-work spaces, and residential units. These types of proposed land uses would generally not involve transport, use, or disposal of significant quantities of hazardous materials. Small quantities of hazardous materials such as paints and cleaning products would be used for routine maintenance.

During project construction, hazardous materials such as fuel, lubricants, paint, sealants, and adhesives would be transported and used at the project site. The routine transport, use, or disposal of these hazardous materials could pose a potential hazard to construction workers at the project site as they would be handling the hazardous materials and could therefore be exposed through inhalation of vapors, direct contact with skin, or accidental ingestion. The routine transport, use, or disposal of these hazardous materials would not pose a significant hazard to the public or environment unless the hazardous materials were accidentally spilled or released into the environment, as discussed in sub-section (b), below.

All future uses on the project site would be subject to existing regulatory programs for hazardous materials. A Hazardous Materials Business Plan (HMBP), in compliance with Berkeley Municipal Code (BMC) Section 15.12.040, must be submitted to the Berkeley Toxics Management Division (TMD) within 30 days 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. This requirement is outlined in section d. of **COA Toxics**, below.

COA Toxics. The applicant shall contact the Toxics Management Division (TMD) at 1947 Center Street or (510) 981-7470 to determine which of the following documents are required and timing for their submittal:

1. Environmental Site Assessments:
    1. Phase I & Phase II Environmental Site Assessments (latest ASTM 1527-13). A recent Phase I ESA (less than 2 years old*) shall be submitted to TMD for developments for:
        - All new commercial, industrial and mixed-use developments and all large improvement projects.
        - All new residential buildings with 5 or more dwelling units located in the Environmental Management Area (or EMA).
        - EMA is available online at: http://www.cityofberkeley.info/uploadedFiles/IT/Level_3_-_General/ema.pdf.
    2. Phase II ESA is required to evaluate Recognized Environmental Conditions (REC) identified in the Phase I or other RECs identified by TMD staff. The TMD may require a third party toxicologist to review human or ecological health risks that may be identified. The applicant may apply to the appropriate state, regional or county cleanup agency to evaluate the risks.
    3. If the Phase I is over 2 years old, it will require a new site reconnaissance and interviews. If the facility was subject to regulation under Title 15 of the Berkeley Municipal Code since the last Phase I was conducted, a new records review must be performed.
2. Soil and Groundwater Management Plan:

1. A Soil and Groundwater Management Plan (SGMP) shall be submitted to TMD for all non-residential projects, and residential or mixed-use projects with five or more dwelling units, that: (1) are in the Environmental Management Area (EMA) and (2) propose any excavations deeper than 5 feet below grade. The SGMP shall be site specific and identify procedures for soil and groundwater management including identification of pollutants and disposal methods. The SGMP will identify permits required and comply with all applicable local, state and regional requirements.
2. The SGMP shall require notification to TMD of any hazardous materials found in soils and groundwater during development. The SGMP will provide guidance on managing odors during excavation. The SGMP will provide the name and phone number of the individual responsible for implementing the SGMP and post the name and phone number for the person responding to community questions and complaints.
3. TMD may impose additional conditions as deemed necessary. All requirements of the approved SGMP shall be deemed conditions of approval of this Use Permit.

3. Building Materials Survey:
    1. Prior to approving any permit for partial or complete demolition and renovation activities involving the removal of 20 square or lineal feet of interior or exterior walls, a building materials survey shall be conducted by a qualified professional. The survey shall include, but not be limited to, identification of any lead-based paint, asbestos, polychlorinated biphenyl (PCB) containing equipment, hydraulic fluids in elevators or lifts, refrigeration systems, treated wood and mercury containing devices (including fluorescent light bulbs and mercury switches). The Survey shall include plans on hazardous waste or hazardous materials removal, reuse or disposal procedures to be implemented that fully comply state hazardous waste generator requirements (22 California Code of Regulations 66260 et seq). The Survey becomes a condition of any building or demolition permit for the Project. Documentation evidencing disposal of hazardous waste in compliance with the survey shall be submitted to TMD within 30 days of the completion of the demolition. If asbestos is identified, Bay Area Air Quality Management District Regulation 11-2-401.3 a notification must be made and the J number must be made available to the City of Berkeley Permit Service Center.
4. Hazardous Materials Business Plan:
    1. A Hazardous Materials Business Plan (HMBP) in compliance with BMC Section 15.12.040 shall be submitted electronically at http://cers.calepa.ca.gov/ within 30 days if on-site hazardous materials exceed BMC 15.20.040. HMBP requirement can be found at http://ci.berkeley.ca.us/hmr/.

Worker health and safety is regulated at the federal level by the US 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 CCR Title 8 and include practices for all industries (General Industrial Safety Orders), and specific practices for construction, and other industries.

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 United States Department of Transportation (DOT) 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 transportation of hazardous materials is subject to DOT, Resource Conservation and Recovery Act (RCRA), and State regulations. 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.

Construction 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 DOT, RCRA, and State regulations.

Compliance with the regulations described above, including BMC Section 15.12.040, OSHA and Cal/OSHA regulations, CCR Title 8, DOT, RCRA, and State regulations, would ensure that the project would not create a significant hazard to the public or the environment associated with the routine transport, use, or disposal of hazardous materials by ensuring that these materials are properly handled during construction and operation of the project. Therefore, this impact would be less than significant.

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?

Less Than Significant. The public and/or the environment could be affected by the release of hazardous materials from the project into the environment, by: (1) exposing workers, the public, future site occupants, or the environment to potentially contaminated soil and groundwater during construction and/or operation of the project, or (2) exposing workers, the public, or the

environment to hazardous building materials (e.g., PCBs, lead paint, asbestos) during demolition of existing commercial structures. However, development projects that require a use permit are required to comply with **COA Toxics**, described above, that addresses each of these potential impacts.

Hazardous Building Materials

Due to the age of the buildings on the project site, hazardous building materials such as asbestos-containing materials (ACMs), lead-based paints (LBP), PCBs containing equipment/materials, and mercury containing devices may be present in the buildings. Demolition and renovation activities could cause the release of hazardous building materials into the environment if hazardous building materials are present in the buildings and are not identified and abated prior to demolition and renovation activities.

COA Toxics, as outlined above, requires that prior to approval of any permit for partial or complete demolition activities involving the removal of 20 square or lineal feet of interior or exterior walls, a building materials survey shall be conducted by a qualified professional. The survey shall include, but not be limited to, identification of any lead-based paint, asbestos, PCB containing equipment, hydraulic fluids in elevators or lifts, refrigeration systems, treated wood and mercury containing devices (including fluorescent light bulbs and mercury switches). The survey shall include plans on hazardous waste or hazardous materials removal, reuse, or disposal procedures to be implemented that fully comply with state hazardous waste generator requirements (22 California Code of Regulations 66260 et seq). The survey becomes a condition of any building or demolition permit for the project. Documentation evidencing disposal of hazardous waste in compliance with the survey shall be submitted to TMD within 30 days of the completion of the demolition. If asbestos is identified, BAAQMD Regulation 11-2-401.3 notification must be made and the BAAQMD Job Number (or "J Number") must be made available to the City of Berkeley Permit Service Center. Compliance with the requirements described above and outlined in **COA Toxics** would ensure that potential impacts related to hazardous building materials would be less than significant.

Hazardous Soil and Groundwater Conditions

A Phase I Environmental Site Assessment (ESA)[38] was prepared for the project site in 2018. The Phase I ESA indicated that auto repair operations have been performed at the project site since 1986, and no indication of underground storage tanks (USTs), in-ground hydraulic lifts, floor drains, sumps, or oil/water separators were observed at the project site. Staining typical of limited auto repair operations was observed in several areas but overall housekeeping was considered good. The project site was not listed in any regulatory databases or records for spills

[38] Partner Engineering and Science, Inc., 2018. Phase I Environmental Site Assessment Report, 2136-2154 San Pablo Avenue, Berkeley, California 94702, October 4.

or releases of hazardous materials. Based on these findings the Phase I ESA concluded that the auto repair operations at the project site were not expected to represent a significant environmental concern.[39] Staining was observed on the ground surface in the unpaved (gravel covered) area in the northeast portion of the project site which is used for storage of vehicles and is adjacent to paved and covered areas where storage of hazardous materials and auto repair activities are performed. Although the staining was noted in the Phase I ESA to be relatively minor and not a concern, sampling and analysis of soil is necessary to evaluate the degree of potential impacts to the subsurface from spills/leaks in this area, as this cannot be evaluated based solely on visual observation of the current ground surface.

The Phase I ESA also identified land uses of potential environmental concern in areas surrounding the project site including a former gas station located adjacent to the south of the project site at 2198 San Pablo Avenue from the 1940s to 1970s, and a former auto wrecking yard located to the east of project site at 2147 San Pablo Avenue from 1929 to 1950, and a former gas station located to the southeast of project site at 2197 San Pablo Avenue from 1929 to 1963. The Phase I ESA indicated that the property located adjacent to the south of the project site at 2198 San Pablo Avenue was redeveloped in the 1980s and no evidence of a release was reported. Based on the lack of a documented release and the direction of groundwater flow, the Phases I ESA concluded that this property was not expected to represent a significant environmental concern for the project site.[40]

The Phase I ESA did not provide any conclusions regarding the potential for the former gas station located at 2197 San Pablo Avenue or the former auto wrecking yard located at 2147 San Pablo Avenue to have impacted the environmental condition of the project site. Because environmental investigations have not been performed at these surrounding properties, it is not known whether hazardous materials releases occurred at the properties. These former gas stations were in operation during a period when fuel USTs were typically constructed of single walled steel that commonly leaked, and the former auto wrecking yard was in operations during a period when environmentally protective hazardous waste storage and disposal practices were not established, and automotive waste fluids were commonly spilled/released onto the ground surface at auto wrecking yards. Based on their proximity to the project site and the potentially upgradient location of the properties located across San Pablo Avenue from the project site, if hazardous materials releases occurred at these off-site properties, the hazardous materials could have migrated beneath the project site in groundwater and/or soil vapor.

[39] Partner Engineering and Science, Inc., 2018. Phase I Environmental Site Assessment Report, 2136-2154 San Pablo Avenue, Berkeley, California 94702, October 4.
[40] Partner Engineering and Science, Inc., 2018. Phase I Environmental Site Assessment Report, 2136-2154 San Pablo Avenue, Berkeley, California 94702, October 4.

The project is located within the City's EMA.[41] These areas in the City are known or suspected to have groundwater contamination.[42] Projects within the City's EMA must comply with the **COA Toxics**, as outlined above, which indicates that a Phase II ESA is required to evaluate Recognized Environmental Conditions (RECs) identified in the Phase I ESA or other RECs identified by TMD staff. The Phase I ESA did not identify any of the environmental concerns discussed above as RECs, nor did it recommend further investigation of the project site through a Phase II ESA. However, TMD staff indicted that a Phase II ESA should be conducted for the project site given its past use, neighboring parcels past use, and the observed staining.[43] **COA Toxics** also indicates that the TMD may require a third party toxicologist to review human or ecological health risks that may be identified in the Phase II ESA, and that the applicant may apply to the appropriate State, regional, or county cleanup agency to evaluate the risks.

A Limited Phase II Investigation[44] was performed at the project site in March 2022, which included collecting three sub-slab soil gas samples for analysis of volatile organic compounds (VOCs) and advancing five borings for soil sampling and analysis. The soil borings were advanced to a depth of approximately 5 feet in the unpaved area behind the site building, including areas previously used for parking and in an area of surface soil staining in front of an auto repair canopy. Two soil gas samples were collected below the auto repair slab on the west side of the building and one soil gas sample was collected below the entrance slab adjacent to the sidewalk on the east side of the building. Because the site building has a raised floor and a crawl space, sub-slab soil gas samples were not collected directly below the building.

The Limited Phase II Investigation indicated that concentrations of petroleum hydrocarbons (diesel and motor oil) were detected in only one soil sample, and the detected concentrations were below the residential Environmental Screening Levels (ESLs) established by the San Francisco Regional Water Quality Control Board (Regional Water Board). Concentrations of semi-volatile organic compounds (SVOCs) were also detected in the one soil sample analyzed for SVOCs, and the detected concentrations were below their residential ESLs. Concentrations of heavy metals including arsenic, cobalt, and lead that exceeded their residential ESLs were detected in multiple soil samples. The detected concentrations of arsenic were within the range of naturally occurring background concentrations. The Limited Phase II Investigation indicated that detected concentrations of other heavy metals in soil samples including barium, vanadium, and zinc exceeded their residential ESLs; however, the Limited Phase II Investigation erroneously

[41] City of Berkeley, 2010. Environmental Management Area. Available online at: www.cityofberkeley.info/uploadedFiles/IT/Level_3_-_General/ema.pdf, accessed February 24, 2022.
[42] City of Berkeley, 2022. Environmental Management Area Website. Available online at: www.ci.berkeley.ca.us/Planning_and_Development/Toxics_Management/Environmental_Management_Area.aspx, accessed February 24.
[43] Meredith Lear, TMD, 2022. Email communication with Sharon Gong, City of Berkeley, February 10.
[44] Harris & Lee Environmental Sciences, LLC, 2022. Limited Phase II Investigation Results, 2136-2154 San Pablo Avenue Berkeley, California 94702, May 3.

compared the analytical results for some heavy metals to Tier 1 ESLs[45] rather than residential ESLs, and the detected concentrations of barium, vanadium, and zinc in soil did not actually exceed their residential ESLs. Concentrations of VOCs were not detected in any of the soil samples analyzed.

The Limited Phase II Investigation indicated that concentrations of tetrachloroethene (PCE) and benzene exceeding their residential ESLs were detected in sub-slab soil gas samples collected from the west of the site building, and PCE and benzene were not detected in the sub-slab soil gas samples collected from the east of the site building.[46]

Because soil gas contamination exceeding residential ESLs was found at the west (presumed downgradient) side of the project site but not in the soil gas sample from the east (presumed upgradient) side of the building, it appears that the source of the soil gas contamination is on the project site and could potentially be beneath the site building.

Based on the findings of the Limited Phase II Investigation, TMD staff indicted that the TMD would require sign off from either the Regional Water Board, DTSC, or Alameda County Department of Environmental Health to confirm that any proposed development of the project site sufficiently addresses the contaminants and potential risks identified by the Limited Phase II Investigation.[47]

Based on the findings of the Limited Phase II Investigation, the subsurface of the project site has been impacted by past releases of hazardous materials; however, the sources and extent of hazardous materials contamination have not been defined. The public, environment, construction workers, and future site occupants could potentially be exposed to hazardous materials that could be accidentally released into the environment if appropriate management of subsurface contamination is not performed during construction. Construction activities that would involve disturbance of soil and groundwater could exacerbate the hazardous materials conditions at the project site and potentially result in the release of hazardous materials into the environment in the form of vapors, dust, or dewatering discharges if contaminated soil and groundwater are present and not managed appropriately. Future occupants of the project site could also be exposed to hazardous materials through soil vapor intrusion to indoor air as VOCs have been detected at concentration exceeding residential ESLs in soil gas samples collected from the project site.

[45] Tier 1 ESLs are the most conservative (lowest) ESLs and can be lower than residential ESLs that are based on human health risk from direct exposure to soil. Tier 1 ESLs can be based on soil leaching to groundwater, terrestrial habitat, and odor nuisance levels which can be lower than residential ESLs.
[46] Harris & Lee Environmental Sciences, LLC, 2022. Limited Phase II Investigation Results, 2136-2154 San Pablo Avenue Berkeley, California 94702, May 3.
[47] Meredith Lear, TMD, 2022b. Email communication with Sharon Gong, City of Berkeley, May 24.

Because the project is within the City's EMA and would include excavation deeper than 5 feet below grade, it must comply with **COA Toxics**, as outlined above, which requires preparation of a site specific SGMP to identify procedures for soil and groundwater management including identification of pollutants and disposal methods. The SGMP would identify permits required and comply with all applicable local, State, and regional requirements. The SGMP would require notification to TMD of any hazardous materials found in soils and groundwater during development. The SGMP would provide guidance on managing odors during excavation, and TMD may impose additional conditions as deemed necessary. For example, if the Phase II ESA identifies soil gas contamination at concentrations exceeding applicable regulatory screening levels for the protection of indoor air quality, then the TMD could require the installation of vapor intrusion mitigation systems beneath the proposed structures.

Implementation of further investigation/risk assessment/remediation under regulatory agency oversight as required by TMD and preparation and implementation of a SGMP under the oversight of the TMD, as required by **COA Toxics**, would ensure that, appropriate investigation, health risk assessment, remediation (as necessary), and soil and groundwater management would occur to ensure that potential impacts related to the accidental release of hazardous materials into the environment due to subsurface contamination would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school?

Less Than Significant. Black Pine Circle School, a private school located at 2027 Seventh Street, and Via Center, a private school located at 2126 Sixth Street, are less than ¼-mile west of the project site. Rosa Parks Elementary School, a public school located at 920 Allston Way, and Nia House, a private preschool located at 2234 Ninth Street, are less than ¼-mile southwest of the project site. Oxford Elementary at West Campus, a public school located at 1222 University Avenue, is less than ¼-mile northeast of the project site. Compliance with federal, State, and local regulations for the management of hazardous materials, as discussed in sub-section (a), above; and compliance with **COA Toxics**, as discussed in sub-section (b), above, would ensure that potential impacts to nearby schools associated with hazardous materials emissions from the project site would be less than significant.

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?

No Impact. The provisions of Government Code Section 65962.5 require the DTSC, the State Water Board, the California Department of Health Services, 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, leaking underground storage tank (LUST) sites, and/or hazardous materials releases to the Secretary of Cal/EPA. The project site is also not included on any of the lists of

hazardous materials release sites compiled in accordance with Government Code Section 65962.5.[48] Therefore no impacts would occur related to being included on a list of hazardous materials 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?

No Impact. The project site is located approximately 10 miles north of the Oakland International Airport. The project site is not located within a public airport land use plan or within 2 miles of a public use airport.[49] Therefore, the project would not result in a safety hazard to people working or residing in the area due to the proximity of an airport.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant. The project would be consistent with the policies outlined in the City of Berkeley General Plan's Disaster Preparedness and Safety Element and would not obstruct emergency evacuation routes.[50] University Avenue and San Pablo Avenue are the designated emergency access and evacuation routes in the project area. The project would not alter the existing roadway network. During construction the project may require temporary closure of portions of San Pablo Avenue. Compliance with traffic control requirements imposed by the City for the permitting of temporary closure of street areas would ensure that appropriate emergency access is maintained at all times during construction activities. Therefore, the project would not be expected to impair the function of nearby emergency evacuation routes and would have a less-than-significant impact on implementation of 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?

No Impact. The project site is in an urban area and is not within or adjacent to a wildland fire hazard area (see *Section XX, Wildfire*, for more information). Therefore, the project would not expose people or structures to a significant loss, injury or death involving wildland fires.

[48] California Environmental Protection Agency (Cal/EPA), 2022. Cortese List Data Resources. Available online at: https://calepa.ca.gov/sitecleanup/corteselist/, accessed February 24.
[49] Alameda County Community Development Agency, 2010. Oakland International Airport, Airport Land Use Compatibility Plan, December.
[50] City of Berkeley, 2001. Disaster Preparedness and Safety Element, April 23. Available online at: https://www.cityofberkeley.info/Planning_and_Development/Home/General_Plan_-_Disaster_Preparedness_and_Safety_Element.aspx, accessed February, 2022.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

The project site is located within the Strawberry Creek Watershed.[51] The dominant hydrologic features in the vicinity of the project site are San Francisco Bay and the lagoons of Aquatic Park. The lagoons are mostly shallow, subtidal aquatic habitat with a sandy/muddy bottom, similar to adjacent portions of Central San Francisco Bay. Under typical conditions, hydrology within the lagoons are strongly influenced by tidal hydrology, as the lagoons are directly and indirectly connected to Central San Francisco Bay.[52]

Stormwater runoff from the project site is conveyed from roof downspouts and surface flow into San Pablo Avenue and the unpaved area in the western portion of the project site. Surface runoff

[51] Sowers, Janet M., 1993. Creek and Watershed Map of Oakland and Berkeley, The Oakland Museum of California (Revised 2000) Available online at: explore.museumca.org/creeks/MapOak.html, accessed May 2020.
[52] City of Berkeley, 2012. Aquatic Park Improvement Program Draft Environmental Impact Report.

from the unpaved area in the western portion of the project site is conveyed as overland flow towards the park adjacent to the west of the project site. Stormwater runoff in San Pablo Avenue is captured in a subsurface storm drain and discharges into a culvert beneath University Avenue (which conveys Strawberry Creek) which discharges to the north end of the Aquatic Park Main Lagoon and into San Francisco Bay to the west of the Main Lagoon.[53]

Water quality in the State of California is regulated by the State Water Quality Control Board (State Water Board) and the nine Regional Water Quality Control Boards. The City of Berkeley is located in the jurisdiction of the San Francisco Bay Regional Water Quality Control Board. Section 303(d) of the Federal Clean Water Act (CWA) requires that states identify water bodies including bays, rivers, streams, creeks, and coastal areas that do not meet water quality standards and the pollutants that are causing the impairment. Total Maximum Daily Loads (TMDLs) describe the maximum amount of a pollutant that a water body can receive while still meeting established water quality standards. A TMDL requires that all sources of pollution and all aspects of a watershed's drainage system be reviewed and set forth action plans that examine factors and sources adversely affecting water quality and identify specific plans to improve overall water quality and reduce pollutant discharges into impaired water bodies. Central San Francisco Bay is listed as an impaired water body for several pollutants including pesticides (chlordane, DDT, and dieldrin), dioxins, furans, invasive species, mercury, PCBs, selenium, and trash in water. TDMLs have been established for mercury, PCBs, and selenium and will ultimately be prepared for other pollutants affecting the Bay.[54]

The National Pollutant Discharge Elimination System (NPDES) was created under the CWA and is regulated by the State Water Board in California to prohibit the discharge of pollutants to receiving waters unless the discharge is in compliance with NPDES permit requirements. NPDES requirements that would apply to both the construction-phase and the operation phase of the Project are described below.

The San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)[55] establishes beneficial water uses for waterways, water bodies, and groundwater within the region and is a master policy document for managing water quality in the region. The Central San Francisco Bay is listed in the Basin Plan as providing the beneficial uses of industrial service supply, industrial process supply, commercial and sport fishing, shellfish harvesting, estuarine habitat, fish migration, preservation of rare and endangered species, fish spawning, wildlife habitat, water contact and noncontact recreation, and navigation. Berkeley Aquatic Park is listed in the Basin

[53] Sowers, Janet M., 1993. Creek and Watershed Map of Oakland and Berkeley, The Oakland Museum of California (Revised 2000) Available at: explore.museumca.org/creeks/MapOak.html, accessed May 2020.
[54] State Water Resources Control Board (State Water Board), 2018. Final 2018 California Integrated Report (Clean Water Act Section 303(d) List/305(b) Report). Available at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html, accessed September 27, 2021.
[55] San Francisco Bay Regional Water Quality Control Board, 2017. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). Incorporating all amendments as of May 4.

Plan as providing existing beneficial uses of estuarine habitat, fish migration, wildlife habitat, water contact and noncontact recreation; and the potential beneficial use of fish spawning. The project site is located within the Santa Clara Valley Groundwater Basin, East Bay Plain Groundwater Subbasin. The East Bay Plain Subbasin is listed in the Basin Plan as providing the beneficial uses of municipal and domestic water supply, industrial process water supply, industrial service water supply, and agricultural water supply.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant. The project includes demolition of the existing on-site buildings, excavation of soil, and construction of the proposed mixed-use building. Pollutants of concern during construction include sediments, trash, concrete waste (dry and wet), petroleum products, and other chemicals typically used in construction. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, oils and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via storm water runoff into receiving waters (i.e., the Berkeley Aquatic Park and Central San Francisco Bay).

Compliance with COAs, as outlined below, including incorporation of construction BMPs to target and reduce pollutants of concern in stormwater runoff, would ensure that potential impacts related to violation of waste discharge requirements and water quality standards and degradation of water quality during construction would be less than significant.

COA Stormwater Requirements. The applicant shall demonstrate compliance with the requirements of the City's National Pollution Discharge Elimination System (NPDES) permit as described in BMC Section 17.20. The following conditions apply:

5. The project plans shall identify and show site-specific Best Management Practices (BMPs) appropriate to activities conducted on-site to limit to the maximum extent practicable the discharge of pollutants to the City's storm drainage system, regardless of season or weather conditions.

6. Trash enclosures and/or recycling area(s) shall be covered; no other area shall drain onto this area. Drains in any wash or process area shall not discharge to the storm drain system; these drains should connect to the sanitary sewer. Applicant shall contact the City of Berkeley and EBMUD for specific connection and discharge requirements. Discharges to the sanitary sewer are subject to the review, approval and conditions of the City of Berkeley and EBMUD.

7. Landscaping shall be designed with efficient irrigation to reduce runoff, promote surface infiltration and minimize the use of fertilizers and pesticides that contribute to stormwater pollution. Where feasible, landscaping should be designed and operated to treat runoff. When and where possible, xeriscape and drought tolerant plants shall be incorporated into new development plans.

8. Design, location and maintenance requirements and schedules for any stormwater quality treatment structural controls shall be submitted to the Department of Public Works for review with respect to reasonable adequacy of the controls. The review does not relieve the property owner of the responsibility for complying with BMC Chapter 17.20 and future revisions to the City's overall stormwater quality ordinances. This review shall be [sic] conducted prior to the issuance of a Building Permit.

9. All paved outdoor storage areas must be designed to reduce/limit the potential for runoff to contact pollutants.

10. All on-site storm drain inlets/catch basins must be cleaned at least once a year immediately prior to the rainy season. The property owner shall be responsible for all costs associated with proper operation and maintenance of all storm drainage facilities (pipelines, inlets, catch basins, outlets, etc.) associated with the project, unless the City accepts such facilities by Council action. Additional cleaning may be required by City of Berkeley Public Works Engineering Dept.

11. All private or public projects that create and/or replace 10,000 square feet or more of impervious surface must comply with Provision C.3 of the Alameda County NPDES permit and must incorporate stormwater controls to enhance water quality. Permit submittals shall include a Stormwater Requirement Checklist and detailed information showing how the proposed project will meet Provision C.3 stormwater requirements, including a) Site design measures to reduce impervious surfaces, promote infiltration, and reduce water quality impacts; b) Source Control Measures to keep pollutants out of stormwater runoff; c) Stormwater treatment measures that are hydraulically sized to remove pollutants from stormwater; d) an O & M (Operations and Maintenance) agreement for all stormwater treatment devices and installations; and e) Engineering calculations for all stormwater devices (both mechanical and biological).

12. All on-site storm drain inlets must be labeled "No Dumping – Drains to Bay" or equivalent using methods approved by the City.

13. Most washing and/or steam cleaning must be done at an appropriately equipped facility that drains to the sanitary sewer. Any outdoor washing or pressure washing must be managed in such a way that there is no discharge or soaps or other pollutants to the storm drain. Sanitary connections are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge.

14. Sidewalks and parking lots shall be swept regularly to prevent the accumulation of litter and debris. If pressure washed, debris must be trapped and collected to prevent entry to the storm drain system. If any cleaning agent or degreaser is used, wash water shall not discharge to the storm drains; wash waters should be collected and discharged to the sanitary sewer. Discharges to the sanitary sewer are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge.
15. The applicant is responsible for ensuring that all contractors and sub-contractors are aware of and implement all stormwater quality control measures. Failure to comply with the approved construction BMPs shall result in the issuance of correction notices, citations, or a project stop work order.
16. All piles of debris, soil, sand, or other loose materials shall be covered at night and during rainy weather with plastic at least one-eighth millimeter thick and secured to the ground.
17. The applicant shall ensure that all excavation takes into account surface and subsurface waters and underground streams so as not to adversely affect adjacent properties and rights-of-way.
18. The project sponsor shall maintain sandbags or other devices around the site perimeter during the rainy season to prevent on-site soils from being washed off site and into the storm drain system. The project sponsor shall comply with all City ordinances regarding construction and grading.
19. Prior to any excavation, grading, clearing, or other activities involving soil disturbance during the rainy season the applicant shall obtain approval of an erosion prevention plan by the Building and Safety Division and the Public Works Department. The applicant shall be responsible for following these and any other measures required by the Building and Safety Division and the Public Works Department.

The Geotechnical Investigation prepared for the project site concluded the historic high groundwater is approximately 5 feet below ground surface.[56] As a result, dewatering from excavations could be required during construction. Improper management and discharge of dewatering effluent into the storm drainage system could adversely affect water quality as contaminants and sediment may be present in the dewatering effluent.

Groundwater dewatering effluent could be discharge to the sanitary sewer, subject to EBMUD permit requirements, which would ensure that discharge standards are met through permit requirements for dewatering effluent testing and treatment. Groundwater could also be discharged to the storm drain system; however, the discharger would be required to prepare a Report of Waste Discharge, and if approved by the Regional Water Board, be issued site-specific

[56] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23.

waste discharge requirements (WDRs) under NPDES regulations. Site-specific WDRs contain rigorous monitoring requirements and performance standards that, when implemented, ensure that receiving water quality is not substantially degraded.

As discussed in *Section IX, Hazards and Hazardous Materials*, the project site is located within the City's mapped EMA, and soil and groundwater contamination could be present beneath the project site and adjacent areas. For development projects within the EMA where dewatering is anticipated, the City's TMD has adopted specific requirements. Since dewatering activities can draw in contamination from outside areas, monitoring of the groundwater discharges may be required. The Toxics Management Division may require dewatering and monitoring plans to ensure the discharge of clean water and the protection of the community from vapors or other health hazards. Additionally, where there is sufficient information indicating soil contamination is present, the Toxics Management Division could require testing of excavation spoils and documentation of proper disposal.[57] The specific requirements for the project would be specified by the City as standard conditions of approval for the Use Permit, as outlined in **COA Toxics**, and at a minimum would require the preparation of a SGMP that would identify procedures for groundwater management. Compliance with the City of Berkeley requirements would ensure that contaminated groundwater is not discharged to surface water. Therefore, potential groundwater dewatering impacts related to violation of waste discharge requirements and water quality standards and degradation of water quality would be less than significant.

Infiltration of stormwater has the potential to affect groundwater quality in areas of shallow groundwater. As stated previously, the Geotechnical Investigation concluded that groundwater is anticipated to exist on the project site at depths as shallow as approximately 5 feet below the existing ground surface. Therefore, due to the shallow groundwater table, stormwater may infiltrate during project construction, potentially affecting groundwater quality given the direct path for pollutants to reach the groundwater table. Proposed construction BMPs, as required by **COA Stormwater Requirements**, would reduce infiltration of pollutants to groundwater during construction. Therefore, project construction would not substantially degrade groundwater quality and this impact would also be less than significant.

Project operation and maintenance would be subject to the Regional Water Board's MRP, Order R2-2015-0049, NPDES Permit No. CAS612008. Provision C.3 of the MRP sets forth appropriate and site-specific source control, site design, and stormwater treatment measures for new and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new projects. The project is considered a regulated project because it is a redevelopment project that would replace over 10,000 square feet of impervious surfaces. Additionally, stormwater treatment systems would be required to be

[57] City of Berkeley, Toxics Management Division. Environmental Management Area. Available online at: www.cityofberkeley.info/Planning_and_Development/Toxics_Management/Environmental_Management_Area.aspx, accessed May 2020.

designed and sized to treat stormwater runoff from the entire project site pursuant to the requirements of Provision C.3 of the MRP[58] and **COA Stormwater Requirements**.

The Alameda County Clean Water Program (ACCWP) has developed a C.3 Stormwater Technical Guidance document to assist in the design, implementation, and maintenance of required stormwater infrastructure.[59] Regulated projects must prepare plans in accordance with the C.3 Stormwater Technical Guidance to detail the BMPs to be implemented as part of the project. Regulated projects must implement source control, site design, and treatment BMPs. Source control BMPs are preventative measures that are implemented to prevent the introduction of pollutants into stormwater. Site design BMPs are stormwater management strategies that emphasize conservation and use of existing site features to reduce the amount of runoff and pollutant loading generated from a project site. Treatment BMPs are structural BMPs designed to treat and reduce pollutants in stormwater runoff prior to releasing it to receiving waters.

In Section F.3 of the C.3 Stormwater Technical Guidance, ACCWP acknowledges that stormwater treatment designs should generally maximize infiltration to the underlying soils; however, at sites with shallow groundwater and/or groundwater contamination, where stormwater infiltration could promote migration of contamination and/or interfere with remediation, flow-through planters and other stormwater controls that are isolated from underlying soils are appropriate.[60] The stormwater control and treatment plans would be reviewed by the City to ensure compliance with the Provision C.3 requirement of the of MRP and ACCWP guidelines. According to the Stormwater Requirements Checklist prepared for the project,[61] stormwater treatment BMPs would include biotreatment areas (flow-through planters).

As previously discussed, infiltration of stormwater could affect groundwater quality in areas of shallow groundwater. Due to the groundwater depth being as shallow as approximately 5 feet below the existing ground surface of the project site, stormwater infiltration during project operation could potentially affect groundwater quality given the direct path for pollutants to reach the groundwater table. The project would be required to implement operational BMPs (including source control, site design, and treatment BMPs) to treat stormwater before it could reach groundwater. These proposed BMPs would treat stormwater runoff on-site and would reduce the volume of stormwater and the infiltration of pollutants into groundwater during operation. Therefore, project operation would not substantially degrade groundwater quality.

Compliance with the requirements of the MRP and **COA Stormwater Requirements**, including incorporation of operational BMPs to target pollutants of concern, would ensure that operational

[58] San Francisco Bay Regional Water Quality Control Board, 2015. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES Permit No. CAS612008, November 19.
[59] Alameda County Clean Water Program (ACCWP), 2021. C.3 Stormwater Technical Guidance, 3rd Revision, Version 7.1, February 8.
[60] Alameda County Clean Water Program (ACCWP), 2021. C.3 Stormwater Technical Guidance, 3rd Revision, Version 7.1, February 8.
[61] San Pablo Investors Two, LLC, 2021, Stormwater Requirements Checklist, 2136 San Pablo Mixed-Use, March 8.

impacts related to violation of waste discharge requirements and water quality standards and degradation of water quality would be less than significant.

b) 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. The City of Berkeley is located within the Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin, which encompasses approximately 122 square miles in Alameda and Contra Costa counties. The East Bay Plain Subbasin generally extends from north to south from the San Pablo Bay to the Niles Cone Groundwater Basin near Hayward. A substantial amount of artificial fill (thicknesses ranging from 1 to 50 feet) has been placed within the basin, with thickest deposits found nearer to San Francisco Bay. Historical groundwater levels in the East Bay Plain Subbasin have varied between 10 to 140 feet below mean sea level; however, levels have been rising continuously since the 1950s.[62]

As discussed in subsection (a), above, according to the Geotechnical Investigation prepared for the project site, groundwater may be present as shallow as approximately 5 feet below the existing ground surface, therefore temporary dewatering from certain areas of excavation (e.g., the vehicle lift pits) could be necessary during construction. Such dewatering would be localized and temporary and would not result in the lowering of surrounding groundwater levels.

Water supply to the project would be provided by the EBMUD water system, which is supplied from the Mokelumne River.[63] Because EBMUD does use groundwater from the East Bay Plain Subbasin for municipal water supply, water use during operation of the project would not affect groundwater. Development of the project would result in an increase in impervious surfaces on the project site from approximately 11,588 square feet to approximately 18,065 square feet. The Geotechnical Investigation prepared for the project site indicates that the soil underlying the project site consists of primarily of stiff to very stiff clay.[64] The presence of such stiff clayey soil limits the infiltration of stormwater and the recharge of groundwater; therefore, the increase in impervious surface area that would occur under the project would not have a substantial effect on groundwater recharge. For the reason listed above, impacts related to the decrease of groundwater supplies or interference with groundwater recharge would be less than significant

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

[62] California Department of Water Resources (DWR), 2004. California's Groundwater Bulletin 118 – Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin, February 27. Available online at: water.ca.gov/Programs/Groundwater-Management/Bulletin-118, accessed May 2020.
[63] East Bay Municipal Utility District (EBMUD), 2022. Water Supply. Available online at: www.ebmud.com/water/about-your-water/water-supply, accessed February 25.
[64] Rockridge Geotechnical, 2019. *Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California,* October 23.

i. Result in substantial erosion or siltation on- or off-site;

Less than Significant. The project would not alter the course of a stream or a river. Site preparation and grading and excavation activities may slightly and temporarily alter on-site drainage; however, the existing drainage patterns would generally be maintained and would not be substantially altered or modified. During construction, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. Compliance with the **COA Stormwater Requirements**, which requires approval and implementation of an erosion prevention plan, would ensure that potential impacts related to erosion and siltation would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than Significant with Mitigation Incorporated. The project would increase the amount of impervious surface area on the project site which could increase the volume and rate of stormwater runoff discharged from the project site; however, as discussed above, the project site is underlain by stiff clayey soil that limits the infiltration of stormwater; therefore, the increase in runoff compared to existing conditions would not be expected to be substantial. The project would convey stormwater runoff to biotreatment areas (flow-through planters). The on-site stormwater drainage systems would discharge to the City's existing off-site stormwater drainage systems. The City would ensure that the on-site stormwater drainage systems would be appropriately sized to convey stormwater runoff. Although the project would not be expected to result in a substantial increase in runoff compared to existing conditions, if existing storm drain systems that receive runoff from the project site are already at or near their capacity during significant rain events, then an increase in runoff from the project site could contribute to exceeding the capacity of storm drain systems, which could results in flooding on- or off-site. This would be a potentially significant impact. In order to control the risk of exceeding the capacity of existing off-site storm drain system, the project shall implement Mitigation Measure HYD-1.

Mitigation Measure HYD-1: Hydraulic modeling shall be performed to evaluate the rates of stormwater discharge from the project site under existing conditions and from the proposed project. The available capacity of existing off-site storm drain systems that would receive runoff from the proposed project shall be evaluated and the evaluation shall account for contribution of runoff from the project site and other development projects that are under construction or planned which would discharge stormwater into the same storm drain systems. If an increase in stormwater discharge from the project site could cause an exceedance of the available capacity of existing storm drain systems, the project shall incorporate stormwater retention systems (e.g., swales, retention ponds, or cisterns with metered outlets) into the project design to ensure that stormwater runoff from the project would not contribute to exceeding the capacity of existing off-site storm drain systems. The results of the hydraulic modeling, evaluation of the capacity of existing off-site storm drain systems, and any changes to the project's stormwater management system designs shall be

submitted to the City for review and approval prior to the issuance of grading or building permits.

Implementation of Mitigation Measure HYD-1 would ensure that potential impacts related to on- or off-site flooding related to an increase in runoff from the project site would be less than significant.

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

Less than Significant with Mitigation Incorporated. As discussed above, the project site is underlain by stiff clayey soil that limits the infiltration of stormwater; therefore, the increase in impervious surface area that would occur under the project would not be expected to result in a substantial increase in runoff compared to existing conditions. Although the project would not be expected to result in a substantial increase in runoff compared to existing conditions, if existing storm drain systems that receive runoff from the project site are already at or near their capacity during significant rain events, then an increase in runoff from the project site could contribute to exceeding the capacity of storm drains. Implementation of Mitigation Measure HYD-1 would ensure that , potential impacts related to runoff from the project site exceeding the capacity of existing or planned stormwater drainage systems would be less than significant. As discussed under subsection (a), above, compliance with the requirements of the MRP, **COA Stormwater Requirements**, would ensure that potential impacts related to additional sources of polluted runoff would be less than significant.

iv. Impede or redirect flood flows?

No Impact. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No 06001C0056H,[65] the Project site is within Zone X, Areas of Minimal Flood Hazard, and is not located within a 100-year or 500-year flood hazard zone. Therefore, the project would not impede or redirect flood flows.

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

No Impact. As discussed above, the project site is not located within a 100-year or 500-year flood hazard zone. The project site is not located in an area mapped by the California Emergency Management Agency as being potentially inundated by a tsunami.[66] Seiches are waves that are created in an enclosed body of water such as a bay, lake, or harbor and go up and down or oscillate and do not progress forward like standard ocean waves. Seiches are also referred to as

[65] Federal Emergency Management Agency (FEMA), 2018. Flood Insurance Rate Map (FIRM) No. 06001C0056H, effective December 21. Available online at: https://msc.fema.gov/portal/search?AddressQuery=berkeley%20ca#searchresultsanchor, accessed February 25, 2022.
[66] California Emergency Management Agency (CalEMA), 2009. Tsunami Inundation Map for Emergency Planning, Oakland West Quadrangle, July.

standing waves and are triggered by strong winds, changes in atmospheric pressure, earthquakes, tsunamis or tidal influence. The height and frequency of seiches are determined by the strength of the triggering factor(s) and the size of the basin. Based on the distance of the project site from the Bay and Aquatic Park lagoons and its elevation above these water bodies, it is highly unlikely that seiches in the Bay and Aquatic Park, if they occur, would impact the project site. Therefore, no impacts would occur related to the release of pollutants in the event of inundation from flooding.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. As discussed above, the Basin Plan is the master policy document that establishes the water quality objectives and strategies needed to protect designated beneficial water uses in the San Francisco Bay region. The State Water Board and the Regional Water Board enforce compliance with the water quality objectives of the Basin Plan through the issuance of NPDES permits. The project's compliance with existing permit requirements and the City's COAs would ensure that the project would not have the potential to conflict with the Basin Plan.

A Groundwater Sustainability Plan (GSP) for the Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin[67] was recently issued by the EBMUD and City of Hayward groundwater sustainability agencies (GSAs). According to the GSP, the sustainability goal for the East Bay Plain Subbasin is to manage and protect the Subbasin in a manner that avoids the six undesirable results listed below while continuing to collect and analyze data to support science-based decision making to evaluate new opportunities for sustainable groundwater beneficial uses:

- Chronic lowering of groundwater levels, indicating a significant and unreasonable depletion of supply.
- Significant and unreasonable reduction of groundwater storage.
- Significant and unreasonable seawater intrusion.
- Significant and unreasonable degraded water quality.
- Significant and unreasonable land subsidence.
- Depletions of interconnected surface water and groundwater that have significant and unreasonable reductions in beneficial uses of surface water, including beneficial use by ecosystems that depend on groundwater.

According to the GSP, the East Bay Plain Subbasin is not experiencing a chronic lowering of groundwater levels and is currently in a sustainable and stable condition because estimated

[67] East Bay Municipal Utility District Groundwater Sustainability Agency (EBMUD GSA) and City of Hayward GSA, 2021. East Bay Plan Subbasin, Groundwater Sustainability Plan, Public Review Draft, September 17.

groundwater pumping from the 1990s to present is well below the estimated sustainable yield of the Subbasin. Additionally, the Subbasin has not experienced significant seawater intrusion even during historical periods of much greater groundwater pumping than is occurring today, and the Subbasin has no observed inelastic land subsidence even during historical periods of much greater groundwater pumping and much lower confined aquifer groundwater elevations than are occurring today.

As detailed above, any groundwater extracted during construction dewatering would be minimal and the increase in impervious surface area that would occur under the project would not have a substantial effect on groundwater recharge. Additionally, project operation would not include groundwater extraction, as municipal water for the project would not be supplied from the groundwater basin. For these reasons, the project would not conflict with or obstruct the implementation of a sustainable groundwater management plan and this impact would be less than significant.

XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

a) Physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

The project site is an underutilized property located in an urbanized area of Berkeley. The project does not involve street closures, linear features, or development that would separate land uses or neighborhoods. Development of the 0.53-acre project site would not physically divide an established community and therefore, no impact would occur.

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

Less Than Significant. The project's consistency with the General Plan, West Berkeley Plan, and Zoning Ordinance is described below.

General Plan

The project site is designated Avenue Commercial in the Berkeley General Plan. The General Plan describes these areas of Berkeley as characterized by pedestrian-oriented commercial development and multi-family residential structures. These areas are typically located on wide, multi-lane avenues served by transit or BART. Appropriate uses for these areas include: local-serving and regional-serving commercial, residential, office, community service, and institutional. The project would be consistent with the General Plan by providing multi-family residential and ground-level commercial space.

The project would also be consistent with a number of policies from the General Plan related to environmental issues addressed by CEQA, including the following:

- Policy EM-5 "Green" Buildings. Promote and encourage compliance with "green" building standards. (Also see Policies EM-8, EM-26, EM-35, EM-36, and UD-6.)
- Policy LU-3 Infill Development. Encourage infill development that is architecturally and environmentally sensitive, embodies principles of sustainable planning and construction, and is compatible with neighboring land uses and architectural design and scale.
- Policy UD-33 Sustainable Design. Promote environmentally sensitive and sustainable design in new buildings.
- Policy H-12 Transit-Oriented New Construction. Encourage construction of new medium- and high-density housing on major transit corridors and in proximity to transit stations consistent with zoning, applicable area plans, design review guidelines, and the Climate Action Plan.
- Policy T-16 Access by Proximity, Action B. Encourage higher density housing and commercial infill development that is consistent with General Plan.

The project would also be consistent with several policies from the General Plan which are not directly intended to mitigate environmental effects. Policies particularly relevant to the project include:

- **Policy LU-4 Discretionary Review.** Preserve and enhance the aesthetic, environmental, economic, and social character of Berkeley through careful land use and design review decision.
- **Policy LU-7 Neighborhood Quality of Life.** Preserve and protect the quality of life in Berkeley's residential areas through careful land use decisions.
- **Policy LU 27 Avenue Commercial Areas.** Maintain and improve Avenue Commercial areas, such as University, San Pablo, Telegraph, and South Shattuck, as pedestrian-friendly, visually

attractive areas of pedestrian scale and ensure that Avenue areas fully serve neighborhood needs as well as a broader spectrum of needs.

- **Policy H-1 Extremely Low-, Very Low-, Low- and Moderate-Income Housing.** Increase the number of housing units affordable to Berkeley residents with lower income levels.

The project would be consistent with the policies above, as it would promote infill and transit-oriented development, follow required discretionary review standards, and provide a mix of affordable housing.

West Berkeley Plan

The project site is also located in the West Berkeley Plan Area, defined as the area between San Pablo Avenue (incorporating both sides of the street) and the Eastshore Freeway. The West Berkeley Plan is intended to guide the development of West Berkeley. It sets forth the City's key land use, environmental, economic development, transportation, housing and social services, and physical form (urban design, historic preservation, open space) policies for West Berkeley. The project would be generally consistent with applicable policies of the West Berkeley Plan related to environmental issues addressed by CEQA, including the following:

- **Environmental Policy 1.6:** Avoid the establishment of new uses which pose unmitigable environmental hazards (see Permitted and Prohibited Uses in Land Use Element).
- **Environmental Policy 5.2:** Reduce existing traffic and adequately mitigate the impact of future traffic (see Transportation Element).
- **Environmental Policy 5.6:** Avoid the establishment of new uses which would create immitigable odors in residential districts.
- **Environmental Policy 5.7:** Institute tree planting as an anti-pollution measure (see Physical Form Element for Implementation Measures).
- **Transportation Goal 1:** Improve traffic flow and air quality by reducing reliance on single occupant automobiles, by encouraging use of alternative means of transportation.

As discussed throughout this Initial Study, the project would not result in unmitigable environmental hazards such as those from hazardous materials and geological resources. As discussed in *Section XVII, Transportation*, impacts related to traffic would be less than significant. As discussed in *Section III, Air Quality*, impacts related to odors would be less than significant. The project would remove three existing street trees along San Pablo Avenue in front of the subject property and replace with three new trees (London Plane) in the same location. The project would be located on an infill site, less than a few hundred feet from three AC Transit bus lines (72, 72M, and 802). In addition, the project would provide 72 bicycle spaces, exceeding the minimum requirement by 14 bicycle spaces.

Berkeley Municipal Code

The project site is designated as West Berkeley Commercial (C-W) by the Berkeley Zoning Ordinance. Some of the main purposes of the C-W District include:

- Encourage the intensification of commercial activity at designated nodes to help develop more pedestrian-oriented environments at those locations;
- Increase the opportunities for development of housing in commercial areas to support local retailing and use of transit lines and opportunities for mixed use projects combining pedestrian-oriented neighborhood-serving uses with mixed income housing in locations abutting residential districts; and
- Promote development compatible with adjacent commercial, residential and industrial areas.

The project would be consistent with C-W District purposes above, as it would provide ground-floor and pedestrian-oriented commercial spaces and provide housing along a major commercial corridor. Furthermore, the project would be consistent with the various C-W District standards, including lot coverage, open space, setback, and permitted uses. While the project would exceed some C-W District development standards, such as permitted height, stories, FAR, etc., the project includes use of the State Density Bonus, which allows projects that provide affordable housing to receive waivers, incentives or concessions related to development standards. The State Density Bonus is incorporated into the Berkeley Municipal Code (BMC) in BMC Chapter 23.330 and, therefore, the project would be consistent with the BMC.

Landmarks Preservation Ordinance

Chapter 3.24 of the BMC establishes the provisions for the City of Berkeley's Landmarks Preservation Commission, which is generally intended to promote the health, safety, and general welfare of citizens of the City through:

- The protection, enhancement, perpetuation and use of structures, sites and areas that are reminders of past eras, events and persons important to local, state or national history, or which provide significant examples of architectural styles of the past, or are landmarks in the history of architecture, or which are unique and irreplaceable assets to the City and its neighborhoods, or which provide for this generation and future generations examples of the physical surroundings in which past generations lived.
- The development and maintenance of appropriate settings and environments for such structures, in such sites and areas.
- The enhancement of property values, the stabilization of neighborhoods and areas of the City, and the increase of economic and financial benefits to the City and its inhabitants.
- The preservation and encouragement of a City of varied architectural styles, reflecting the distinct phases of its history--cultural, social, economic, political and architectural.

- The enrichment of human life in its educational and cultural dimensions in order to serve spiritual as well as material needs by fostering knowledge of the living heritage of the past.

For the project applicant to alter or demolish an existing historic resource, they would be required to seek discretionary review from the Landmarks Preservation Commission, who would be required to make appropriate findings to do so. For this reason, while the project proposes the demolition of an historic structure, the project applicant would have to follow all applicable procedures intended to reduce these sorts of impacts and would therefore be consistent with Chapter 3.24 of the BMC.

A more in-depth discussion of the project's impacts related to Cultural Resources, including those related to policies, will be studied in the Cultural Resources section of the Focused EIR.

Summary

As described above, the project would be consistent with applicable policies of the Berkeley General Plan, BMC, and West Berkeley Plan with the potential exception of those policies related to historic preservation and protection of cultural resources. Because these policies are specific to historic preservation and protection of cultural resources, it will be studied in the Cultural Resource section of the Infill EIR, and thus would have a less-than-significant impact pertaining to land use.

XII. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

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?

No impact. The project site is located within an urban area on an infill site. There are no known mineral resources within or in the vicinity of the project site. The Environmental Management

Element of the City's General Plan states that there is no active mineral extraction in Berkeley.[68] The project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State. Therefore, the project would have no impact related to mineral resources.

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?

No impact. As stated above, the project would not result in the loss of availability of any known locally important mineral resource recovery sites. Therefore, the project would have no impact related mineral resources.

XIII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

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?

Less Than Significant. 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 unit. 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

[68] City of Berkeley, 2001. Berkeley General Plan, Environmental Management Element, April 23.

frequency range. For this reason, a frequency-dependent weighting system is used, and monitoring results are reported in A-weighted decibels (dBA).[69]

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 (e.g., construction equipment) are reduced by at least 6 dBA for every doubling of that distance over hard surfaces and 7.5 dBA for every doubling of that distance over soft surfaces. Noise levels at a known distance from line sources (e.g., roadways) are reduced by at least 3 dBA for every doubling of that distance over hard surfaces and 4.5 dBA for every doubling of that distance over soft surfaces.[70] 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:[71]

- A change of 1 dBA cannot typically be perceived, except in carefully controlled laboratory experiments;
- A change of 3 dBA 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.

Because sound pressure levels are based on a logarithmic scale, they cannot be added or subtracted using linear methods. 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 second noise source is lower than the first noise source by at least 10 dBA, the contribution from the second noise source to the overall sound level is negligible (i.e., close to zero). In such cases, no adjustment factor is needed because the contribution from the lower noise source makes no perceptible difference in what people can hear or measure. For example, if one noise source generates a noise level of 95 dBA and another noise source is added that generates a noise level of 80 dBA, the higher noise source dominates and the combined noise level will be 95 dBA.

[69] Charles M. Salter Associates, Inc., 1998. Acoustics – Architecture, Engineering, the Environment.
[70] California Department of Transportation (Caltrans), 1998. Technical Noise Supplement: A Technical Supplement to the Traffic Noise Analysis Protocol.
[71] Charles M. Salter Associates, Inc., 1998. Acoustics – Architecture, Engineering, the Environment.

According to the General Plan Noise Contours Map, the project is located in an area with noise levels reaching 75 dBA average Day-Night Level (L_{dn}).[72,73] Traffic along San Pablo Avenue is the primary source of noise at the project site. Adjacent receptors to the project site include single-family homes to the west and southwest; a liquor store to the south on the same block as the project site; vacant apartment land to the north, and commercial land uses (auto-repair shop, a restaurant, and a fast-food restaurant) to the east across San Pablo Avenue.[74]

The City of Berkeley established construction noise standards and exterior noise standards at receiving land uses in the Berkeley Community Noise Ordinance (Ordinance), Section 13.40 of the Berkeley Municipal Code (BMC). For project construction and demolition, BMC Section 13.40.070 prohibits noise-generating construction activities from occurring between the hours of 7:00 p.m. and 7:00 a.m. on weekdays and the hours of 8:00 p.m. and 9:00 a.m. on weekends and holidays. The City of Berkeley organizes construction activities into two categories: short-term (less than 10 days) operation of mobile equipment and long-term (period of 10 days or more) operation of stationary equipment. The construction of the project would take about 18 months and therefore is considered as long-term operation of stationary equipment. Where technically and economically feasible, the noise Ordinance requires construction activities to be conducted in such a manner that sound levels at receiving properties do not exceed the maximum permissible noise levels specified in Table 10.

TABLE 10 EXTERIOR NOISE LIMITS AT RECEIVING LAND USES DURING CONSTRUCTION

	Maximum Allowable Noise Level (dBA)	
Receiving Zoning District	**Weekdays 7:00 AM–10:00 PM**	**Weekends/Legal Holidays 9:00 AM–8:00 PM**
Exterior Noise Standards		
Single-, two- family, and restricted multiple-family residential	60	50
Multiple-family and multi-family residential	65	55
Commercial	70	60

Notes: The maximum sound levels for repetitively scheduled and relatively long-term operation (period of 10 days or more) of stationary equipment are shown. When the measured ambient noise level exceeds the permissible noise levels, then the permissible noise levels shall be adjusted based on the measured ambient noise level.
Source: City of Berkeley Municipal Code (BMC) Chapter 13.40.070.B.7.b.

[72] L_{dn} (Day/Night Noise Level) is the average A-weighted sound pressure level during a 24-hour day, obtained after addition of 10 decibels to levels measured during the night between 10:00 p.m. and 7:00 a.m.
[73] City of Berkeley, 2001. Berkeley General Plan, Environmental Management Element (Adopted April 23). Available online at: https://www.cityofberkeley.info/Planning_and_Development/Home/General_Plan_-_Environmental_Management_Element(2).aspx, accessed February 25, 2022.
[74] City of Berkeley, 2021. Land Use Zoning Districts.

For project operations, Table 11 presents the maximum permissible exterior noise levels based on receiving land use type and time period, as outlined in BMC Section 13.40.050 and 13.40.060.

TABLE 11 EXTERIOR NOISE LIMITS AT RECEIVING LAND USES DURING OPERATION

	Maximum Allowable Noise Level (dBA)	
Receiving Zoning District	**7:00 AM–10:00 PM**	**10:00 PM–7:00 AM**
Exterior Noise Standards		
Single-, two- family, and restricted multiple-family residential	55	45
Multiple-family and multi-family residential	60	55
Commercial	65	60

Notes: The noise standard for each land use are for a cumulative period of more than 30 minutes in any hour. When the measured ambient noise level exceeds the permissible noise levels, then the permissible noise levels shall be adjusted based on the measured ambient noise level.
Source: City of Berkeley Municipal Code (BMC) Chapter 13.40.050, Exterior Noise Standards.

Noise Generated During Project Construction

Construction activities would temporarily increase noise levels in the vicinity of the project site. The primary source of noise during construction would be generated by off-road equipment activity on the project site. Construction noise levels would vary from day-to-day, depending on the number 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 or absence of barriers, if any, between the noise source and receptor. Pile driving, which can generate extreme levels of noise, is not proposed as part of the project.

The assumptions regarding the types of construction equipment that would be used on the project site are based on the default equipment list from California Emissions Estimator Model (CalEEMod). As discussed in the *Section III, Air Quality*, the default construction equipment list is based on a combination of statewide and regional surveys of land use construction projects. A copy of the CalEEMod report for the project, which summarizes the input parameters, assumptions, and outputs, is provided in Appendix A. In accordance with guidance from the Federal Transit Administration (FTA), construction noise impacts were evaluated by quantifying the maximum noise levels that would result from the simultaneous operation of the two noisiest pieces of equipment near the perimeter of the project site closest to a sensitive receptor. The types of construction equipment that would be used on the project site and the associated noise calculations are included in Appendix B.

As shown in Table 12, the project's construction noise levels were estimated at the nearest noise-sensitive receptor (single family home located about 21 feet southwest of the project boundary) for each construction phase. Based on our analysis, project construction could generate noise levels that exceed the maximum allowable noise levels established by the BMC (Table 10).

TABLE 12 POTENTIAL NOISE IMPACTS FROM PROJECT CONSTRUCTION EQUIPMENT

Construction Phase	Potential Noise Levels at Nearest Residence (dBA)	Threshold (dBA)	Threshold Exceeded?
Demolition	95	60 (weekdays) 50 (Weekends/Legal Holidays)	Yes
Site Preparation	93		Yes
Grading	93		Yes
Building Construction	91		Yes
Paving	94		Yes
Architectural Coat	85		Yes

Notes: Estimated noise levels do not include implementation of the City's Standard Conditions of Approval for noise reduction.
Noise calculations are included in Appendix B.
The maximum allowable received noise level standards for single- and two-family residential zoning areas were used as thresholds (Table 10).

Implementation of the following standard conditions of approval would lessen the impacts of construction period noise:

COA Construction Noise Reduction Program. The applicant shall develop a site-specific noise reduction program prepared by a qualified acoustical consultant to reduce construction noise impacts to the maximum extent feasible, subject to review and approval of the Zoning Officer. The noise reduction program shall include the time limits for construction listed above, as measures needed to ensure that construction complies with BMC Section 13.40.070. The noise reduction program should include, but shall not be limited to, the following available controls to reduce construction noise levels as low as practical:

1. Construction equipment should be well maintained and used judiciously to be as quiet as practical.
2. Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.
3. Utilize "quiet" models of air compressors and other stationary noise sources where technology exists. Select hydraulically or electrically powered equipment and avoid pneumatically powered equipment where feasible.
4. Locate stationary noise-generating equipment as far as possible from sensitive receptors when adjoining construction sites. Construct temporary noise barriers or partial enclosures to acoustically shield such equipment where feasible.
5. Prohibit unnecessary idling of internal combustion engines.
6. If impact pile driving is required, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.

7. Construct solid plywood fences around construction sites adjacent to operational business, residences or other noise-sensitive land uses where the noise control plan analysis determines that a barrier would be effective at reducing noise.
8. Erect temporary noise control blanket barriers, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
9. Route construction related traffic along major roadways and away from sensitive receptors where feasible.

COA Construction Noise Management – Public Notice Required. At least two weeks prior to initiating any construction activities at the site, the applicant shall provide notice to businesses and residents within **500 feet** of the project site. This notice shall at a minimum provide the following: (1) project description, (2) description of construction activities during extended work hours and reason for extended hours, (3) daily construction schedule (i.e., time of day) and expected duration (number of months), (4) the name and phone number of the Project Liaison for the project that is responsible for responding to any local complaints, and (5) that construction work is about to commence. The liaison would determine the cause of all construction-related complaints (e.g., starting too early, bad muffler, worker parking, etc.) and institute reasonable measures to correct the problem. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval.

COA Construction Phases. The applicant shall provide the Zoning Officer with a schedule of major construction phases with start dates and expected duration, a description of the activities and anticipated noise levels of each phase, and the name(s) and phone number(s) of the individual(s) directly supervising each phase. The Zoning Officer or his/her designee shall have the authority to require an on-site meeting with these individuals as necessary to ensure compliance with these conditions. The applicant shall notify the Zoning Officer of any changes to this schedule as soon as possible.

COA Construction Hours. Construction activity shall be limited to between the hours of 8:00 AM and 6:00 PM on Monday through Friday, and between 9:00 AM and Noon on Saturday. No construction-related activity shall occur on Sunday or any Federal Holiday.

COA Construction Hours – Exceptions. It is recognized that certain construction activities, such as the placement of concrete, must be performed in a continuous manner and may require an extension of these work hours. Prior to initiating any activity that might require a longer period, the developer must notify the Zoning Officer and request an exception for a finite period of time. If the Zoning Officer approves the request, then two weeks prior to the expanded schedule, the developer shall notify businesses and residents within 500 feet of the

project site describing the expanded construction hours. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval. The project shall not be allowed more than 15 extended working days.

COA Project Construction Website. The applicant shall establish a project construction website with the following information clearly accessible and updated monthly or more frequently as changes warrant:

- Contact information (i.e., "hotline" phone number, and email address) for the project construction manager.
- Calendar and schedule of daily/weekly/monthly construction activities.
- The final Conditions of Approval, Mitigation Monitoring and Reporting Program, Transportation Construction Plan, Construction Noise Reduction Program, and any other reports or programs related to construction noise, air quality, and traffic.

Measures required by the conditions of approval listed above would reduce construction noise levels at nearby receptors to the maximum extent that is technically and economically feasible. Since noise would be temporary and reduced to the maximum extent that is technically and economically feasible, the project construction would be consistent with the Berkeley noise ordinance (Section 13.40.070 of the BMC). The proper implementation of these conditions of approval would ensure that the construction of the project would not conflict with the City of Berkeley's construction noise standards and therefore, construction noise impact would be less than significant.

Noise Generated During Project Operation

Operation of the project would generate noise from commercial and residential activities and associated vehicular traffic. In general, the proposed land uses are consistent with the existing land uses in the vicinity of the project site.

Heating, Ventilation, and Air Conditioning (HVAC) Systems

The project would involve the installation of heating, ventilation, and air conditioning (HVAC) systems. As stated in Section 13.40 of the BMC, the HVAC system is required to be enclosed or muffled and maintained so that noise levels in surrounding zoning districts do not exceed the thresholds outlined in Table 11. Therefore, the stationary equipment used during operation of the project would not violate the standards in the BMC.

Traffic-Generated Noise

Noise levels near the project site would potentially increase due to the additional vehicle trips contributed by the project. The primary sources of noise in the vicinity of the project site are

traffic along the San Pablo Avenue, with an average daily traffic volume of 18,840.[75] To cause a perceivable difference in ambient noise levels (3 dBA above ambient), the project would need to double the amount of traffic along San Pablo Avenue.[76] As indicated in the traffic study, operation of the project would generate a total of 28 trips during the AM peak hour and 15 trips during the PM peak hour.[77] Since the project will not double the amount of traffic on San Pablo Avenue, the project-generated traffic would not generate a substantial increase in ambient noise levels and would not violate the standards in the BMC.

b) Generation of excessive ground borne vibration or ground borne noise levels?

Less Than Significant. 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 human 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 as Root Mean Square (RMS) velocity. 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 event. Thus, RMS is more appropriate for evaluating human response to vibration. PPV and RMS are normally described in units of inches per second (in/sec), and RMS is also often described in vibration decibel (VdB).

Section 13.40.070 of the BMC prohibits vibration levels that annoy or disturb two or more reasonable persons of normal sensitiveness who reside in separate residences.[78] Table 13 summarizes the vibration criteria to prevent disturbance of residences adjacent to the project site.[79] In this analysis, the "infrequent events" threshold (80 VdB) is applied for construction equipment based on the nature of proposed construction activities. Table 14 summarizes the vibration criteria to prevent damage to structures. The vibration criterion for non-engineered timber and masonry buildings (0.2 in/sec) is selected to conservatively represent the building types adjacent to and near the project site. Vibration impacts from project operation and

[75] Alameda County Transportation Commission, 2014. Countywide Travel Demand Model. Planning Area 1; 2020 Daily Model Vehicle Volumes, July.
[76] Because sound pressure level is measured on a logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB.
[77] Abrams Associates, 2021. Transportation Impact Analysis, 2136 San Pablo Avenue, City of Berkeley, July 29
[78] City of Berkeley Municipal Code Section 13.40.070, Prohibited Acts.
[79] According to the FTA Transit Noise and Vibration Impact Assessment Manual, the "Institutional land uses" category includes institutions and offices that have vibration-sensitive equipment and have the potential for activity interference such as schools, churches, doctors' offices. However, commercial or industrial locations including office buildings are not included in this category unless there is vibration-sensitive activity or equipment within the building.

construction are discussed below with respect to the vibration criteria summarized in Table 13 and Table 14.

TABLE 13 VIBRATION CRITERIA TO PREVENT DISTURBANCE – RMS (VDB)

Land Use Category	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
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: Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual. FTA Report No.0123. September.

TABLE 14 VIBRATION CRITERIA TO PREVENT DAMAGE TO STRUCTURES

Building Category	PPV (in/sec)
Reinforced-concrete, steel, or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Source: Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual. FTA Report No.0123. September.

Vibration Generated during Project Construction

Construction activities can result in varying degrees of ground vibration, depending on the equipment, activity, and relative proximity to sensitive receptors. The primary types of equipment that would generate ground vibration during project construction and the associated vibration calculations are included in Appendix B. To evaluate the project's potential vibration effects to nearby sensitive receptors, a buffer distance was estimated for each type of equipment to avoid exceeding the FTA construction vibration thresholds at the closest sensitive receptor. The buffer distance that would be required to reduce vibration levels to below the construction thresholds for disturbance and building damage are summarized in Table 15 and Table 16, respectively.

TABLE 15 POTENTIAL VIBRATION DISTURBANCE

Equipment Unit	Disturbance Vibration Threshold (RMS)	Buffer Distance to Disturbance Threshold (Feet)	Distance to Closest Receptor (Feet)	Threshold Exceeded?
Vibratory Roller	80	73	21	Yes
Large Bulldozer		43		Yes
Loaded Truck		40		Yes
Small Bulldozer		5		No

Note: Estimated vibration levels do not include implementation of the City's Standard Conditions of Approval for noise and vibration reduction.
Supporting calculations are included in Appendix B.
The following FTA threshold was used to calculate the buffer distances from construction equipment: People – Maximum vibration threshold of 80 VdB for residences from infrequent construction events (Table 13).

As shown in Table 15, the construction equipment that would require the largest buffer distance to avoid generating vibration levels that could disturb residents is a vibratory roller. Vibration from a vibratory roller could exceed the 80-VdB threshold at residences located within 73 feet. As discussed above, the closest residence is located about 21 feet from the project site boundary. Therefore, construction activities could generate excessive vibration levels that potentially

TABLE 16 POTENTIAL VIBRATION DAMAGE TO BUILDINGS

Equipment Unit	Building Damage Vibration Threshold (in/sec)	Buffer Distance to Damage Threshold (Feet)	Distance to Closest Receptor (Feet)	Threshold Exceeded?
Vibratory Roller	0.2	26	21	Yes
Large Bulldozer		15		No
Loaded Truck		13		No
Small Bulldozer		2		No

Note: Estimated vibration levels do not include implementation of the City's Standard Conditions of Approval for noise and vibration reduction.
Supporting calculations are included in Appendix B.
The following FTA threshold was used to calculate the buffer distances from construction equipment: Structures – Maximum vibration threshold of 0.2 in/sec PPV for non-engineered timber and masonry buildings (Table 14).

disturb residential activities, such as sleeping. However, implementation of **COA Construction Hours**, and **COA Construction Hours – Exceptions**, would restrict construction activities within daytime hours from Monday to Saturday, thereby restricting any impact related to noise and vibration to normal daytime hours and reducing the likelihood of disturbance of residents (e.g., sleep disturbance). Therefore, construction activities would not be expected to generate excessive vibration levels that would disturb nearby residents.

As shown in Table 16, vibration from a vibratory roller could exceed the 0.2 in/sec PPV threshold for potential structural impacts to buildings located within 26 feet. In accordance with **COA**

Construction Noise Reduction Program, the project is required to develop a Construction Noise Reduction Program to ensure that project construction complies with Section 13.40.070 of the BMC. Since construction equipment that could generate high levels of noise are often those that could also generate high levels of vibration, reduction in construction noise would also result in reduction in construction vibration. The impact related to construction vibration of the project would also be reduced by implementation of the following standard condition of approval:

> **COA Damage Due to Construction Vibration.** The project applicant shall submit screening level analysis prior to, or concurrent with demolition building permit. If a screening level analysis shows that the project has the potential to result in damage to structures, a structural engineer or other appropriate professional shall be retained to prepare a vibration impact assessment (assessment). The assessment shall take into account project specific information such as the composition of the structures, location of the various types of equipment used during each phase of the project, as well as the soil characteristics in the project area, in order to determine whether project construction may cause damage to any of the structures identified as potentially impacted in the screening level analysis. If the assessment finds that the project may cause damage to nearby structures, the structural engineer or other appropriate professional shall recommend design means and methods of construction that to avoid the potential damage, if feasible. The assessment and its recommendations shall be reviewed and approved by the Building and Safety Division and the Zoning Officer. If there are no feasible design means or methods to eliminate the potential for damage, the structural engineer or other appropriate professional shall undertake an existing conditions study (study) of any structures (or, in case of large buildings, of the portions of the structures) that may experience damage. This study shall
>
> 1. Establish the baseline condition of these structures, including, but not limited to, the location and extent of any visible cracks or spalls; and
>
> 2. Include written descriptions and photographs. The study shall be reviewed and approved by the Building and Safety Division and the Zoning Officer prior to issuance of a grading permit. Upon completion of the project, the structures (or, in case of large buildings, of the portions of the structures) previously inspected will be resurveyed, and any new cracks or other changes shall be compared to pre-construction conditions and a determination shall be made as to whether the project caused the damage. The findings shall be submitted to the Building and Safety Division and the Zoning Officer for review. If it is determined that project construction has resulted in damage to the structure, the damage shall be repaired to the pre-existing condition by the project sponsor, provided that the property owner approves of the repair.

With implementation of COAs described above, the vibration-related impact of project construction would be less than significant.

Vibration Generated during Project Operation

The project would include multiple-family residential and live-work uses. These land uses do not involve equipment or activities that generate excessive groundborne vibration or groundborne noise levels. Therefore, operation of the project would have a less-than-significant impact related to groundborne vibration or groundborne noise.

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 not located within the vicinity of a private airstrip.[80] Therefore, the project would have no impact related to the exposure of people to excess noise levels from private airstrips.

Oakland International Airport is the closest airport to the project site and is located approximately 10 miles to the southeast. The project site is not located within a public airport land use plan or within 2 miles of any other public use airport.[81] Therefore, the project would have no impact related to the exposure of people to excess noise levels from public use airports.

XIV. PARKS AND RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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?	☐	☐	☒	☐

a) 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?

[80] Federal Aviation Administration (FAA), 2019. Airport Data and Contact Information. Effective: February 28, 2019. Database searched for both public-use and private-use facilities in Alameda County. Available online at: http://www.faa.gov/airports/airport_safety/airportdata_5010/, accessed March 1, 2022.
[81] Alameda County Community Development Agency, 2010. Oakland International Airport, Airport Land Use Compatibility Plan, December.

Less Than Significant. As discussed in *Section XVI, Public Services*, residents of the project would be expected to use local parks and community facilities in Berkeley as well as regional recreational facilities. Although the project would incrementally increase use of these facilities, particularly George Florence Park, which borders the project site to the west, this minor increase in use is not expected to result in substantial physical deterioration of local parks, trails, and community centers and this impact would be less than significant. Specifically, the project is anticipated to increase the City's population by less than one half of 1 percent, as mentioned in *Section XV, Population and Housing*, and these facilities are anticipated to have capacity to serve this minimal increase in demand. In addition, the project would provide open space in the form of communal common space at the roof decks and podium levels of the building and would comply with city open space requirements, which would reduce the burden on public recreational facilities. Therefore, the project would have a less-than-significant impact on existing parks or other recreational facilities

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. The project would involve redevelopment of the project site with residential and live-work uses. The project does not include or require the construction or expansion of existing public recreational facilities; therefore, development of the project and associated recreational opportunities for use by project residents would not result in additional environmental effects beyond those described in this document.

XV. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

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)?

Less Than Significant. The project proposes to construct 123 residential units and three live-work units. Based on the City's average household size of 2.17 persons, the project would

accommodate approximately 280 residents.[82] The new residents could increase the City's population if they relocate from outside the City. New residents that relocate from within the City may not result in a net increase in the City's population, depending on the circumstances.

As of 2010, the population of Berkeley was estimated to be approximately 112,580.[83] The anticipated population growth associated with the project—if each new resident results in a net increase in the City's population—represents less than a 0.1 percent increase to the City's current population. Berkeley's population is projected to grow to a total of 140,100 people by 2040, an increase of approximately 27,520 people.[84] The project represents less than 0.1 percent of the population growth anticipated through 2040.

The State of California mandates that Housing Elements must allocate and accommodate a certain number of housing units by affordability level to help plan to meet a jurisdiction's share of projected adequate housing for the State. The Regional Housing Needs Allocation (RHNA) process determined that the City of Berkeley needs to demonstrate capacity for 8,934 new units for the current planning period (2023-2031).[85]The City's Site Inventory and Residential Capacity Analysis process for the City of Berkeley has shown that there is a capacity of approximately 5,328 new units on underutilized parcels throughout the City, with the greatest capacity for new units in the commercial districts. The 123 residential units and three live-work units that would be constructed as a result of the project are therefore consistent with the housing capacity requirements and projections for the City of Berkeley.

Given the reasons described above, the project would not either directly or indirectly induce population growth in Berkeley beyond that planned for the City. Therefore, the project would have a less-than-significant impact related to population growth.

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

No Impact. The project site currently includes a single-story commercial building that would be demolished and replaced with the project. The project would not displace any housing. Therefore, the project would have no impact related to displacement of existing housing.

[82] City of Berkeley, 2015. City of Berkeley 2015-2023 Housing Element, March 30. Assumes 2.17 residents per live-work unit as well.
[83] City of Berkeley, 2015. City of Berkeley 2015-2023 Housing Element, March 30. Assumes 2.17 residents per live-work unit as well.
[84] City of Berkeley, 2015. City of Berkeley 2015-2023 Housing Element, March 30. Assumes 2.17 residents per live-work unit as well.
[85] Association of Bay Area Governments (ABAG), 2021. Final Regional Housing Needs Allocation (RHNA) Plan, March 28.

XVI. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

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, or other public facilities?*

The following section addresses the project's potential effects on fire service, police service, schools, parks, and other public facilities. Impacts to public services would occur if the project increases demand for services such that new or expanded facilities would be required, and construction or operation of these new facilities would cause environmental impacts.

Fire Protection

Less Than Significant. The Berkeley Fire Department currently provides fire protection and emergency medical services to the project site. The Berkeley Fire Department operates seven fire stations including seven engine companies, two truck companies, and three ambulances. Primary service to the project site would be provided by Station 1 at 2442 Eighth Street. This station is approximately ½-mile south of the project site. Station 1 houses an engine company, ambulance, and reserve ambulance. Currently, the Fire Department is staffed with 140 employees.[86] The

[86] City of Berkeley. Berkeley Fire Department, Fire Stations and Fire Districts. Available online at: https://www.cityofberkeley.info/Fire/Home/Fire_Stations_and_Fire_Districts.aspx, accessed March 30, 2022.

City's goal for staffing is reviewed each budget cycle and considers historical and current year information related to fire and emergency services. Additional housing units add to the potential for increase in call volume. In 2016, the Berkeley Fire Department responded to 244 fires, including 92 structure fires, and 10,066 emergency medical calls for service.[87]

The addition of 123 residential units and three live-work units would increase the day- and night-time population on the project site and in Berkeley in general, incrementally increasing the demand for emergency fire services. Maximum building heights on the site would reach approximately 69 feet and 6 inches to the rooftop. However, the Fire Department's aerial ladder truck reaches 100 feet and the Department has the appropriate equipment to access these buildings. Furthermore, the project would be required to comply with all applicable codes for fire safety and emergency access and the Fire Department would ensure that appropriate measures are implemented to reduce hazardous conditions at the site.

The Berkeley Fire Department would continue to provide services to the project site and would not require additional firefighters to serve the project. The construction of new or expanded fire stations would not be required to meet response time goals. Therefore, the project would not result in a substantial adverse physical impact associated with the provision of additional fire facilities or services. Furthermore, the City's Fire Department evaluates staffing needs on a continual basis as growth occurs throughout the City. Funding for additional firefighting services, including new staff, is obtained through the City's General Fund.

In addition, the Berkeley Fire Department administers the Uniform Fire Code and applicable sections of the California Health and Safety Code, California Administrative Codes, Title 19, Public Safety and Title 24, Building Standards. The Berkeley Fire Department also actively participates in the City of Berkeley's development process by commenting on building design and materials. The project would be required to comply with all applicable codes for fire safety and emergency access and additional review by the Fire Department to ensure that appropriate measures are implemented to reduce hazardous conditions at the site and provide for adequate emergency access. Compliance with the Berkeley Fire Department's requirements would further ensure that potential impacts to fire services would be less than significant.

Police Protection

Less Than Significant. The Berkeley Police Department provides police protection services to the project site. Police headquarters are located at 2100 Martin Luther King Jr. Way, approximately 1 mile to the east of the project site. The Police Department consists of 270 employees, including 164 sworn officers, and is authorized for up to 181 sworn officers. This

[87] City of Berkeley, 2017. NFPA Response Data, January 1-December 31, 2016.

number allows for a ratio of 1.5 sworn officers per 1,000 residents.[88] The City's goal for staffing is reviewed each budget cycle and considers historical and current year information related to police services. City population increases are not weighed in the Police Department's staffing needs.

The Police Department has transitioned to a 16-beat system; the project site is located within Beat 16. The standard City-wide response time for Priority 1 calls (life-threatening situations) is 5 minutes from the time of dispatch.

The addition of 123 residential units and three live-work units would increase the day- and night-time population on the site and in Berkeley in general, incrementally increasing the demand for police services. However, the presence of a day- and night-time population in this area could also increase security, which could in turn reduce the potential for criminal activity. Increased demand for police services on the site would not require the alteration of existing police facilities or construction of new facilities in order to maintain existing service standards or staffing ratios. The project would not result in an adverse environmental impact related to demand for police services. Therefore, the project would have a less-than-significant impact related to police services.

Furthermore, the City's Police Department evaluates staffing needs on a continual basis as growth occurs throughout the City. Funding for additional police service, including new staff, is obtained through the City's General Fund.

Schools

Less Than Significant. The Berkeley Unified School District (BUSD) operates 20 schools, including 11 public elementary schools (grades K-5), 3 middle schools (grades 6-8), one high school (grades 9-12), and an alternative high school (grades 9-12). In addition, the BUSD has three preschool facilities and one Adult School serving several thousand students each year.

The estimated number of students the project would generate is derived by multiplying the number of students per dwelling unit (the student yield factor) by the number of dwelling units in the project (123 units). The BUSD has not developed student generation rates to estimate the number of students that might be anticipated with new development. However, the California State Allocation Board Office of Public School Instruction reports that the statewide student yield factor per dwelling unit is 0.5 students for Grades K through 6th and 0.2 students for grades 7th through 12th. Applying the statewide average student yield factor, the project could generate students—approximately 67 elementary school students and 19 middle and high school students. California state law authorizes local school districts to adopt one-time fees for new housing and

[88] City of Berkeley. Berkeley Police Department, City of Berkeley Police Department Quick Facts. Available online at: https://www.cityofberkeley.info/Police/Home/Quick_Facts.aspx, accessed March 30, 2022.

commercial developments. SB 50, which revised the existing limitation on developer fees for school facilities, was enacted as urgency legislation which became effective on November 4, 1998, as a result of the California voters approving a bond measure (Proposition 1A). SB 50 established a 1998 base amount of allowable developer fees (Level One fee) for residential construction (subject to adjustment) and prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess of or in addition to those provided in the statute.

Effective June 8, 2017, most new developments in Berkeley will be assessed a one-time School Facility Fee by the BUSD. The fee is $3.48 per square foot for residential development of more than 500 square feet and $0.56 per square foot for new commercial and industrial development. This fee represents the maximum allowed under State law.89 The fees would be directed towards maintaining adequate service levels, which would ensure that any impact to schools that could result from the project would be offset. The project will be required to pay the fee of $3.48 per square foot before being issued a building permit. Therefore, potential impacts pertaining to schools would be less than significant.

Parks

Less Than Significant. The City owns and operates approximately 52 parks, comprising 230 acres of urban parks. The City has a goal of two park acres per 1,000 residents. The population of Berkeley (121,485 residents) enjoys a park service ratio of 1.9 acres per 1,000 residents. With the addition of Tilden Regional Park (2,079 acres), Eastshore State Park (1,854 acres), and the Bay Trail (6.3 acres), parkland available to residents increases to over 30 acres per 1,000 residents.2

The closest park is the George Florence Park, directly adjacent to the project site on Tenth Street. This ½-acre park includes a multi-purpose turf, picnic area, and play structure. Strawberry Creek park is approximately ½-mile to the east of the project site and includes several basketball courts, tennis courts, and children's play equipment. Ohlone Park is the nearest large park (approximately 9.8 acres in size) and is located approximately 1 mile northeast of the project site. Ohlone Park features a softball field, multi-purpose turf, a basketball court, four play areas, a dog park, and other amenities. Ohlone Park is part of the Ohlone Greenway, which is a pedestrian and non-motorized vehicle path beginning in Berkeley and running north through Albany, El Cerrito, and terminating near the Richmond city limit.

Development of the project could increase the use of these parks, as well as other parks within the City and within the region. However, this increase in use is not expected to adversely affect the physical conditions of local and regional open space areas or recreational facilities or require

[89] Berkeley Unified School District, 2017. Notice: New Developer Fees (School Facility Fee) for Berkeley Unified School District. Available online at: http://www.berkeleyschools.net/notice-new-developer-fees-school-facility-fee-for-berkeley-unified-school-district/, accessed March 30, 2022.

the provision of new parks or facilities. Specifically, the project is anticipated to increase the City population by less than one-half of one percent. The project would not result in a substantial increase in demand for park or recreation services in the vicinity, such that new facilities would be required to serve the project. The project meets code requirements related to open space and offers additional open space amenities which may reduce impact on public parks. Therefore, the project would have a less-than-significant impact related to the provision of park and recreational facilities.

Other Public Facilities

Less Than Significant. Development of the project could also increase demand for other public services, including libraries, community centers, and public health care facilities. However, the increased residential population that would result from the project would not substantially increase the use of these facilities, such that new facilities would be needed to maintain service standards, as these facilities are not currently overused and have capacity to serve new demand. In addition, the general development fees related to construction contribute to public works as well as schools. Therefore, impacts to other public facilities would be less than significant.

XVII. TRANSPORTATION

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

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

Less Than Significant. The Land Use Element of the City's General Plan[90] contains several policies related to circulation systems, including transit, roadway, bicycle, and pedestrian facilities. Land Use Policy LU-27, in particular, aims to maintain and improve Avenue Commercial

[90] City of Berkeley, 2001. General Plan, Land Use Element, accessed July 6, 2022.

areas, including San Pablo Avenue, as "pedestrian-friendly, visually attractive areas of pedestrian scale and ensure that Avenue areas fully serve neighborhood needs as well as a broader spectrum of needs". Action D of LU-27 is to "Provide bicycle facilities and ample and secure bicycle parking wherever appropriate and feasible." The project would add up to 64 long-term bicycle parking spaces for residential uses, 21 more than required by BMC. The spaces would be accessible through the building lobby on San Pablo Avenue. Furthermore, the project proposes 8 short-term bicycle parking spaces, 3 more than required by BMC, thereby improving bicycle facilities at the project site.

There are bus stops less than 100 feet south of the project at the intersection of San Pablo Avenue and Allston Way and approximately 700 feet to the north at the intersection of San Pablo Avenue and University Avenue. The project does not feature any design elements which would be anticipated to interfere with these bus operations.

As the project would not include any activities or construction of structures that would decrease the performance or safety of public transit, bicycle, or pedestrian facilities, as described above, the project's impact would be less than significant

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?

Less Than Significant. The City of Berkeley's VMT Criteria and Thresholds specify that the presumption of a less-than-significant VMT impact might not be appropriate if the project:

- Has a floor area ratio (FAR) of less than 0.75.
- Includes more than 200,000 square feet of office or commercial space.
- Includes more parking supply than the project's estimated demand
- Is inconsistent with the City's General Plan, an applicable Specific Plan, or an applicable Sustainable Communities Strategy (as determined by the City, with input from the MTC).
- Replaces affordable residential units with market-rate residential units.
- Has project-specific or location-specific information that indicates that the project will generate significant levels of VMT.

In this case none of the above factors would apply to the project. The project is approximately two thirds of a mile from the North Berkeley BART station and is located near bus stops at the intersection of numerous bus lines at San Pablo Avenue and University Avenue, which is considered a major transit stop. The project also meets the other screening criteria described above and therefore, subject to City approval, this project would be assumed to have a less than significant impact on VMT in the area.

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

Less Than Significant. The project proposes a full-access driveway along San Pablo Avenue and would not introduce any geometric features or incompatible uses that would create hazards or impede sightlines. Therefore, the project would have a less-than-significant impact.

d) Result in inadequate emergency access?

Less Than Significant. The project would have multiple access points, including a parking garage entrance on San Pablo Avenue, two entrances to the lobby, and an egress point along the north of the site. The project is less than a ½-mile from Berkeley Fire Department Station 1, which is located at the intersection of Dwight Way and Eighth Street. Lastly, the project is estimated to generate approximately 28 peak hour trips, and therefore would add minimal trips and congestion to local streets and would have minimal impact on emergency access response times. Based on these factors, the project is expected to have adequate emergency vehicle access, and this impact would be less than significant.

XVIII. TRIBAL CULTURAL RESOURCES

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

a) 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:

v. 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

vi. 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?

Less Than Significant. There are no known tribal cultural resources at or in the immediate vicinity of the project site. As described above in *Section V, Cultural Resources*, the potential to uncover Native American human remains and other buried tribal cultural resources exists in locations throughout California. Given that the project site has been previously developed and other development has occurred around the project area discoveries are not expected. Although not anticipated, human remains or other buried tribal cultural resources could be identified during site-preparations and grading activities, resulting in a potentially significant impact to Native American cultural resources.

Given the potential for tribal cultural resources in the vicinity, and pursuant to State law, written notices about the Project were sent to the following tribes on February 10, 2022: Amah Mutsun Tribal Band of Mission San Juan Bautista, Costanoan Rumsen Carmel Tribe, Guidiville Indian Rancheria, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of the SF Bay Area, North Valley Yokuts Tribe, The Ohlone Indian Tribe, Wuksache Indian Tribe/Eshom Valley Band, and The Confederated Villages of Lisjan (Tribes). Pursuant to AB 52 and SB 18 and according to Government Code Section 65352.3, the tribes were provided information on the Project and invited to consultation. The Confederated Villages of Lisjan tribe requested a consultation. On March 23, 2022 the first consultation meeting occurred between The Confederated Villages of Lisjan and The City of Berkeley. ~~Consultation is ongoing.~~ In response to a comment received during Tribal Consultation, Evans & De Shazo (EDS), the historic subconsultant that prepared the Cultural Resources Study (CRS) for this project, retained Byram Archaeological Consulting, LLC to complete a Ground Penetrating Radar (GPR) study to inspect the project area for buried archaeological resources. The CRS and GPR survey did not result in the identification of any surficial or buried archaeological resources within the project area, and did not change the less-than-significant findings related to archeological resources or human remains.

In July 2022, The City shared the results of the survey with the Confederated Villages of Lisjan and EDS's recommendation to revise one condition of approval, to replace the Archeological

Monitoring Plan COA with Cultural Resources Awareness Training (CRAT). Other standard conditions related to Archaeological Resources and Human Remains will remain the same.

In August 2022 the tribe confirmed receipt of the GPR survey results, agreed with EDS's recommendation to replace the Archeological Monitoring Plan COA with a CRAT COA, and concluded consultation on the project. These recommendations are described in Section V. Cultural Resources above.

XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

b) 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. The project would connect to existing water delivery systems within the vicinity of the site, and it is anticipated that existing pipelines would have sufficient capacity to support project water flows. There is a 6-inch sewer main on San Pablo Avenue and a 6-inch sewer main on Tenth Street within the vicinity of the project. If it is determined that sewer service larger than 6-inches is required for the development, the applicant shall work with EBMUD, the City's Fire Department, and the City's Public Works Department to determine response adequate

location and size for the new connection. Potential solutions could include connecting to an existing sewer main on an adjacent street or upsizing the existing sewer main on San Pablo Avenue to accommodate the additional flow from the project. Implementation of the City's standard COAs through the project approval process, would ensure the applicant coordinates with EBMUD, the City's Fire Department, and the City's Public Works Department to assess water, wastewater, and fire flow requirements.

As discussed in *Section X, Hydrology and Water Quality,* development of the project would result in an increase in impervious surfaces on the project site from approximately 11,588 square feet to approximately 18,065 square feet, a 56 percent increase. The project would also include stormwater control features such as planters on the project site and sidewalk frontage. Since stormwater runoff increases linearly with the amount of impervious surface, the increase in stormwater runoff resulting from the project would be no more than 35 percent. Therefore, the project would not require the construction or expansion of new or existing water or wastewater treatment facilities, and the impact would be less than significant.

EBMUD's Orinda Water Treatment Plant (Orinda WTP) and Main Wastewater Treatment Plant (MWWTP) serve the project site and surrounding area. The Orinda WTP has the largest output of EBMUD's treatment plants with a peak capacity of 190 million gallons per day (MGD). The project would represent less than 1 percent of the total capacity of the Orinda WTP (refer to subsection b below for projected water demand) and less than 0.01 percent of the remaining capacity of the MWWTP.[91] As described below, development of the project on an infill site would not substantially increase water demand or wastewater generation at the project site such that new or expanded water or wastewater treatment facilities would be required to serve the project.

c) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less Than Significant. Water service at the project site and in the project area is provided by EBMUD. EBMUD obtains approximately 90 percent of its water from the Mokelumne River watershed, and transports it through pipe aqueducts to temporary storage reservoirs in the East Bay hills. EBMUD has water rights and facilities to divert up to a daily maximum of 325 MGD from the Mokelumne River. Average daily water demand within the entire EBMUD service area was 238 MGD in 2020 and is projected to reach 245 MGD in 2025.

The project would generate a water demand of 32,000 gallons per day for new residential uses (123 units including the live-work units) and the commercial portions of the live-work units (1,245 square feet). This amount accounts for approximately 0.013 percent of EBMUD's projected service-wide daily water demand for 2020 and 2025. Furthermore, EBMUD's projected water demand accounts for projected growth within the region as identified by ABAG. Per the

[91] East Bay Municipal Utility District (EBMUD), 2021. Urban Water Management Plan 2020, June.

discussion in *Section XV, Population and Housing*, the project site is an appropriate location for residential and job growth and would meet the demand for growth as outlined in various planning documents, including the City's Housing Element and Plan Bay Area. EBMUD would not require new or expanded water entitlements to serve the project.

EBMUD completed development of a revised Water Supply Management Program (WSMP) 2040 in April of 2012, which is the District's plan for providing water to its customers over the next 30 years.[92] According to the WSMP, EBMUD's water supplies are estimated to be sufficient during the planning period (2010-2040) in normal and single dry years. Therefore, new or expanded entitlements are not anticipated to be required to provide water service to the project and the impact related to sufficient water supplies would be less than significant.

The WSMP 2040 emphasizes maximum conservation and recycling strategies, with a total of 50 MGD of future supply to be provided from those two component categories. However, looking toward 2040, EBMUD's current supply is projected to be insufficient to meet customer needs during multi-year droughts despite EBMUD's aggressive water conservation and recycled water programs. According to the WSMP, the combination of rationing, conservation, and raw and recycled water will satisfy increased customer demand through 2040. Supplemental supply will also be needed to keep rationing at a lower level and to meet the need for water in drought years.

In response to Governor's Executive Order B-29-15, issued on April 1, 2015, EBMUD implemented mandatory water restrictions on all customers within its service area, with the goal of reducing water demand by 20 percent. EBMUD's Policy 3.07 ensures that priority for new water service connections during restrictive periods is given to proposed developments within EBMUD's service area that include housing units affordable to lower income households in accordance with California Government Code 65589.7. The policy also states that EBMUD will not deny an application for services to a proposed development that includes affordable housing unless certain conditions are met (e.g., water shortage emergency conditions are in effect). On May 10, 2016 EBMUD declared an end to the drought emergency in its service area, and eased the drought level to Stage 0, indicating normal water supplies. On April 7, 2017, the drought emergency was lifted in all counties except Fresno, Kings, Tulare and Tuolumne, with the signing of Governor's Executive Order B-40-17.The Regional Water Board will maintain urban water use reporting requirements and prohibitions on wasteful practices.

Future users of the site (and all EBMUD customers) should plan for shortages in times of drought. Policy EM-26 in the City of Berkeley General Plan promotes water conservation through City programs and requirements, including cooperation with EBMUD to make recycled water available for irrigation and other uses. Compliance with standard City requirements for incorporating water conservation measures into the project design will ensure efficient use of

[92] East Bay Municipal Utility District (EBMUD), 2022. Water Supply Management Program 2040 Plan, April.

water at the project site and minimize the project's potential water demand such that the project's impact would be less than significant. Furthermore, per Senate Bill 7, signed into law on September 26, 2016, new apartment buildings constructed after January 1, 2018, are required to include submeters for every rental unit and to bill tenants accordingly. This ensures future tenants know how much water they are using and have a direct financial incentive to conserve.In addition, these new residential units, unlike many other single-family residences, do not have individual rear yards, and so will likely use less water than other types of residences in the city may.

EBMUD also imposes a system capacity charge on new developments to fund system maintenance and the development of new water sources. The project applicant would be required to pay this fee and undertake water conservation measures to conserve water such as the installation of low-flow toilets. In addition, the project applicant would also be required to comply with the City's **COA Water Efficient Landscaping**, which specifies that the applicant shall provide a Bay-Friendly Basics Landscape Checklist that includes detailed notes of any measures that would not be fully met by the project (if any). The applicant's Bay-Friendly Basics Landscape Checklist indicates the applicant will implement the following measures, including but not limited to: protecting all soil on site with a minimum of 3 inches of mulch after construction, amending the soil with compost before planting, and minimizing lawn area.

Landscape improvements are required to be consistent with the current versions of the State's Water Efficient Landscape Ordinance as well as Section 31 of EBMUD's Water Service Regulations (Water Efficiency Requirements). Section 31 also specifies water-efficiency requirements for water-using equipment (i.e., toilets, showerheads, dishwashers, etc.) that are included as part of the project.

With the implementation of measures indicated in the Bay-Friendly Basics Landscape Checklist and compliance with requirements of the State's Water Efficient Landscape Ordinance, Section 31 of EBMUD's Water Service Regulations, and **COA Water Efficient Landscaping**, the project's impacts pertaining to water supplies would be less than significant.

d) 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. In Berkeley, sanitary sewage flows to EBMUD's wastewater interceptors, which then directly flows to the MWWTP in the City of Oakland. Sanitary sewers in Berkeley begin with building connections at the upper laterals (which are privately-owned and maintained) and continue to the lower laterals and the sewer mains (which are City-owned and maintained). Within the City of Berkeley, there are approximately 254 miles of sanitary sewer mains, with an estimated 31,600 lateral connections. The sewer mains vary from 1 to 100 years old, and vary in size from 6 to 48 inches in diameter.

The City's sewer system is connected to trunk lines that convey flows to the MWWTP. The MWWTP has a primary treatment capacity of 320 MGD and a secondary treatment capacity of 168 MGD .[93] Storage basins provide plant capacity for a short-term hydraulic peak of 415 MGD . The average annual daily flow into the MWWTP is approximately 60 MGD , representing 36 percent of the plant's secondary treatment capacity.[94] Treated effluent is disinfected, dechlorinated, and discharged through a deep-water outfall 1 mile off the East Bay shoreline into San Francisco Bay.

In compliance with the September 22, 2014, Consent Decree, the City has implemented a long-term mandated Sanitary Sewer Capital Improvement Program to eliminate Sanitary Sewer Overflows and reduce stormwater infiltration and inflow (I/I) into the sanitary sewer system. Under this program, the City utilizes a comprehensive asset management approach based on complex and evolving hydraulic modeling and condition assessments to repair, replace, or upgrade the City's portion of the sanitary sewer system, ultimately to meet requirements of the Consent Decree.

The project would generate domestic wastewater, which would be treated by the EBMUD treatment facilities. EBMUD is required to meet applicable Regional Water Board treatment requirements. In addition, the project would use an incremental portion of EBMUD's wet weather treatment capacity. Wastewater generated by the project is assumed to be equal to indoor water demand, 32,000 gallons per day (see subsection b above for further detail), which represents less than 0.01 percent of the remaining capacity of the MWWTP. Therefore, the project would not generate wastewater exceeding the wastewater treatment requirements of the Regional Water Board.

Because the project would be served by the MWWTP for its wastewater treatment, it would not violate the wastewater treatment requirements of the San Francisco Bay RWQCB Therefore, the impact to wastewater treatment requirements would be less than significant.

e) 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. The project would entail the demolition of the one existing single-story building on the project site. Per the City's **COA Construction and Demolition,** the applicant is required to submit a Waste Diversion Form and Waste Diversion Plan that meet the diversion requirements of BMC Chapters 19.24 and 19.37. Furthermore, standard condition of approval *Construction and Demolition Diversion* requires the project to submit a Waste Diversion Report,

[93] East Bay Municipal Utility District (EBMUD). Wastewater Treatment. Available online at: www.ebmud.com/wastewater/collection-treatment/wastewater-treatment, accessed March 30, 2022.
[94] East Bay Municipal Utility District (EBMUD), 2016. East Bay Sewer System Management Plan. Available online at: www.ebmud.com/wastewater/collection-treatment/sewers, accessed March 30, 2022.

with receipts or weigh slips documenting debris disposal or recycling during all phases of the project, to the City's Building and Safety Division. These requirements would divert as much demolition debris as possible from the waste stream.

Prior to approval of large development projects, the City of Berkeley Zero Waste Management Division staff reviews proposed plans for the adequate design of trash and recycling facilities. The project would also comply with General Plan Policy EM-5, which promotes and encourages compliance with "green" building standards. These requirements would divert as much solid waste as possible from the waste stream.

The City of Berkeley operates its own refuse collection system. The City provides curbside recycling, green waste and refuse collection services to the project site. Solid waste would be transported from the Berkeley Transfer Station, located at 1021 Second Street, to the Altamont Landfill and Resource Recovery Facility, located near the Altamont Pass, northeast of the City of Livermore. As of March 22, 2019, the Altamont Landfill had 65,400,000 cubic yards of capacity remaining, approximately half of its maximum permitted capacity.[95] As described above, the City's SCA and requirements for solid waste diversion would ensure the project generates as little landfill waste as possible. In 2016 and 2017, the City of Berkeley diverted approximately 76 and 68 percent of its solid waste from landfills through recycling and/or composting efforts. The Altamont Landfill would have sufficient capacity to accommodate the solid waste generated by the project, and therefore, this impact would be less than significant.

f) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant. The project would comply with Berkeley's Municipal Code Section 19.37.050 and the California Green Building Standards Code, both of which regulate solid waste and recycling during construction. The Berkeley Municipal Code regulates solid waste and recycling and is consistent with the City of Berkeley's 1986 Solid Waste Management Plan, the County of Alameda Solid Waste Management Plan, and the legislative intent and findings of the State of California Solid Waste Management and Resource Recovery Act of 1972 (Government Code Section 66700 et seq.). Therefore, the project would comply with all applicable regulations related to solid waste and any impacts would be less than significant.

[95] CalRecycle.ca.gov, 2019. Facility/Site Summary Details: Altamont Landfill and Resource Recovery (01-AA-0009). Available online at: https://www2.calrecycle.ca.gov/swfacilities/Directory/01-AA-0009, accessed March 30, 2022.

XX. WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 evaluation 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?	☐	☐	☐	☒

a) Substantially impair an adopted emergency response plan or emergency evaluation plan?

Less Than Significant. The project would be consistent with the policies outlined in the General Plan's Disaster Preparedness and Safety Element and would not obstruct emergency evacuation routes.[96] University Avenue, Sixth Street, San Pablo Avenue, and Dwight Way are the designated emergency access and evacuation routes in the vicinity of the project. The project would not alter the adjacent roadways. Therefore, the project would not be expected to impair the function of nearby emergency evacuation routes and would have a less-than-significant impact on implementation of 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?

No Impact. The project site is not within or adjacent to a wildland fire hazard area, located within a very high fire severity zone, nor is it located within a State Responsibility Area for fire service.[97] In addition, the project site is in a highly developed, flat, and urban area and is not subject to any other external factors which could exacerbate wildfire risks. In addition, Therefore, the project would not expose people or structures to a significant loss, injury or death involving wildland fires.

[96] City of Berkeley, 2001. Berkeley General Plan, Disaster Preparedness and Safety Element, April 23.
[97] City of Berkeley, 2014. City of Berkeley Local Hazard Mitigation Plan, June 1.

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?

No Impact. The project site is in a highly developed urban area, and all infrastructure serving the project, including roads, water sources, and other utilities, is already constructed. The project would install on-site connections to this infrastructure but would not install any infrastructure that would exacerbate fire risk. The project site is not located in the wildland-urban interface (WUI) where development would exacerbate existing fire risk.

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?

No Impact. The project site is not located in an area formally identified as subject to wildland fire hazards, the nearest designated fire zone is approximately 2 miles to the east, and the project site and surrounding area are relatively flat. As discussed in *Section VII, Geology and Soils*, the project site is not located within a landslide hazard zone. The project would replace an existing commercial structure and surface parking lot with a mixed-use building, which would not alter the project site's risk from downstream flooding or landslides due to post-fire slope instability.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.)	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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?

Potentially Significant Impact. The project site consists of an infill site in an urban area. The site does not support habitat for special-status plant or animal species. Therefore, development of the project would not: 1) degrade the quality of the environment; 2) substantially reduce the habitat of a fish or wildlife species; 3) cause a fish or wildlife species population to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; or 5) reduce the number or restrict the range of a rare of endangered plant or animal.

However, the project could have a potentially significant impact as it relates to examples of the major periods of California history or prehistory. As described in *Section V, Cultural Resources*; the project site currently contains a structure that was built in 1923 and has been designated as a City of Berkeley Landmark. Furthermore, an Historic Resources Evaluation (HRE) was prepared and identified the project as eligible for listing in the California Register of Historical Resources under Criterion 3, Design/Construction, as its architecture embodies distinctive characteristics of its type and period. For these reasons, the subject building qualifies an "historic resource" under CEQA Section 15064.5, which defines a historical resource as a resource listed in or determined to be eligible for listing in the California Register of Historical Resources; listed in a local register of historical places; or as determined by the Lead Agency.

The project proposes the complete demolition of the subject building and is therefore presumed to change the significance of the historical resource. For this reason, it is considered to be a potentially significant impact and will be evaluated in greater detail in the Focused EIR.

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.)

Potentially Significant Impact. Cumulative impact analyses are specifically included for certain issue areas such as air quality, GHG emissions, noise, and traffic. Implementation of the project

would result in less-than-significant environmental impacts for all topics except for Cultural Resources, with implementation of the City's COAs and compliance with the Berkeley Municipal Code and applicable State and federal regulations. Other impacts associated with the project would generally be localized at the project site and would not combine with other projects to cause cumulatively considerable environmental impacts. The Focused EIR will evaluate potentially significant impacts to cultural resources both individually and cumulatively, and is therefore considered a potentially significant impact.

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

Less Than Significant. In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in the preceding responses, the project would not result, either directly or indirectly, in substantial adverse impacts related to air quality, hazards and hazardous materials, or noise and vibration. Therefore, the project would not have substantial adverse effects on people.

IV. LIST OF PREPARERS

City of Berkeley

Sharon Gong, Senior Planner

Urban Planning Partners, Inc.

Lynette Dias, Principal
Alison Lenci, Senior Planner

V. REFERENCES

Abrams Associates, 2021. VMT Analysis for the 2136 San Pablo Avenue Project, June 8.

Abrams Associates, 2021. Transportation Impact Analysis, 2136 San Pablo Avenue, City of Berkeley, July 29.

Alameda County Assessor's Office Parcel Viewer, 2022 . California Land Conservation Act. Williamson Act assessment value. Available online at: http://gis.acgov.org/Html5Viewer/index.html?viewer=parcel_viewer, accessed May 5, 2022.

Alameda County Clean Water Program (ACCWP), 2021. C.3 Stormwater Technical Guidance, 3rd Revision, Version 7.1, February 8.

Alameda County Community Development Agency, 2010. Oakland International Airport, Airport Land Use Compatibility Plan, December.

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

Alison Lenci, Urban Planning Partners, Inc. Email communication with Yilin Tian at Baseline Environmental Consulting, March 10, 2022.

Association of Bay Area Governments, 2021. Final Regional Housing Needs Allocation (RHNA) Plan, March 28.

Bay Area Air Quality Management District (BAAQMD), 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards, May.

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

Berkeley, 2009. Climate Action Plan, June.

California Air Resources Board (CARB), 1998. Initial Statement of Reasons for Rulemaking; Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, June.

California Air Resources Board (CARB), 2017. The 2017 Climate Change Scoping Plan Update, January 20.

Bay Area Air Quality Management District (BAAQMD), 2022. CSV file for 2017 permitted stationary sources provided by Matthew Hanson, BAAQMD, to Yilin Tian, Baseline Environmental Consulting, April 14.

BAAQMD, 2022. Draft Justification Report – CEQA Thresholds for Evaluating the Significance of Climate Impacts. February.

Berkeley Unified School District, 2017. Notice: New Developer Fees (School Facility Fee) for Berkeley Unified School District. Available online at: http://www.berkeleyschools.net/notice-new-developer-fees-school-facility-fee-for-berkeley-unified-school-district/, accessed March 30, 2022.

Cal/EPA, 2022. Cortese List Data Resources. Available online at: https://calepa.ca.gov/sitecleanup/corteselist/, accessed February 24.

California Department of Conservation (CDC), 1982. Special Studies Zones; Oakland West, January 1.

California Department of Conservation (CDC), 2016. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Available online at: https://maps.conservation.ca.gov/dlrp/ciff/, accessed February 24, 2022.

California Department of Fish and Wildlife Biographic Information and Observation System, 2022. Available online at: https://apps.wildlife.ca.gov/bios/?bookmark=648, accessed April 13, 2022.

California Department of Transportation (Caltrans), 1998. Technical Noise Supplement: A Technical Supplement to the Traffic Noise Analysis Protocol.

California Department of Water Resources, 2004. California's Groundwater Bulletin 118 – Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin, February 27. Available online at: www. water.ca.gov/Programs/Groundwater-Management/Bulletin-118, accessed May 2020.

California Geological Survey, 2003. Seismic Hazard Zones; Oakland West Quadrangle, February 14.

California Government Code Section 65915-65918.

CalRecycle.ca.gov, 2019. Facility/Site Summary Details: Altamont Landfill & Resource Recovery (01-AA-0009). Available online at: https://www2.calrecycle.ca.gov/swfacilities/Directory/01-AA-0009, accessed March 30, 2022.

California Emergency Management Agency (CalEMA), 2009. Tsunami Inundation Map for Emergency Planning, Oakland West Quadrangle, July.

Charles M. Salter Associates, Inc., 1998. Acoustics – Architecture, Engineering, the Environment.

City of Berkeley, 2001. General Plan, Environmental Management Element, April 23.

City of Berkeley, 2001. General Plan, Environmental Management Element (Adopted April 23). Available online at: https://www.cityofberkeley.info/Planning_and_Development/Home/General_Plan_-_Environmental_Management_Element(2).aspx, accessed February 25, 2022.

City of Berkeley, 2001. General Plan, Land Use Element, accessed July 6, 2022.

City of Berkeley, 2001. Disaster Preparedness and Safety Element, April 23. Available online at: https://www.cityofberkeley.info/Planning_and_Development/Home/General_Plan_Disaster_Preparedness_and_Safety_Element.aspx, accessed February, 2022.

City of Berkeley. 2010. West Berkeley Project Draft Environmental Impact Report, January.

City of Berkeley, 2010. Environmental Management Area. Available online at: www.cityofberkeley.info/uploadedFiles/IT/Level_3_-_General/ema.pdf, accessed February 24, 2022.

City of Berkeley, 2012. Aquatic Park Improvement Program Draft Environmental Impact Report.

City of Berkeley, 2014. City of Berkeley Local Hazard Mitigation Plan, June 1.

City of Berkeley, 2015. City of Berkeley 2015-2023 Housing Element, March 30. Assumes 2.17 residents per live-work unit as well.

City of Berkeley, 2017. NFPA Response Data, January 1-December 31, 2016.

City of Berkeley, 2020. City of Berkeley VMT Criteria and Thresholds. June 29.

City of Berkeley, 2021. Land Use Zoning Districts.

City of Berkeley, 2022. Environmental Management Area Website. Available online at: www.ci.berkeley.ca.us/Planning_and_Development/Toxics_Management/Environmental_Management_Area.aspx, accessed February 24.

City of Berkeley Fire Department, Fire Stations and Fire Districts. Available online at: https://www.cityofberkeley.info/Fire/Home/Fire_Stations_and_Fire_Districts.aspx, accessed March 30, 2022.

City of Berkeley Municipal Code Section 13.40.070 Prohibited Acts.

City of Berkeley Police Department, City of Berkeley Police Department Quick Facts. Available online at: https://www.cityofberkeley.info/Police/Home/Quick_Facts.aspx, accessed March 30, 2022.

City of Berkeley Toxics Management Division, 2020. Environmental Management Area. Available online at: www.cityofberkeley.info/Planning_and_Development/Toxics_Management/Environmental_Management_Area.aspx, accessed February 24.

East Bay Municipal Utility District (EBMUD), 2016. East Bay Sewer System Management Plan. Available online at: www.ebmud.com/wastewater/collection-treatment/sewers, accessed March 30, 2022.

East Bay Municipal Utility District (EBMUD), 2021. Urban Water Management Plan 2020.

East Bay Municipal Utility District (EBMUD). Wastewater Treatment. Available online at: www.ebmud.com/wastewater/collection-treatment/wastewater-treatment, accessed March 30, 2022.

East Bay Municipal Utility District (EBMUD), 2022. Water Supply Management Program 2040 Plan, April.

East Bay Municipal Utility District (EBMUD), 2022. Water Supply. Available online at: www.ebmud.com/water/about-your-water/water-supply, accessed February 25, 2022.

East Bay Municipal Utility District (EBMUD) GSA and City of Hayward GSA, 2021. East Bay Plan Subbasin, Groundwater Sustainability Plan, Public Review Draft, September 17.

East Bay Municipal Utility District (EBMUD) GSA and City of Hayward GSA, 2022. East Bay Plan Subbasin, Groundwater Sustainability Plan.

Federal Aviation Administration (FAA), 2019. Airport Data and Contact Information. Effective: February 28, 2019. Database searched for both public-use and private-use facilities in Alameda County. Available online at: http://www.faa.gov/airports/airport_safety/airportdata_5010/, accessed March 1, 2022.

Federal Emergency Management Agency, 2018. Flood Insurance Rate Map (FIRM) No. 06001C0056H, effective December 21. Available online at: https://msc.fema.gov/portal/search?AddressQuery=berkeley%20ca#searchresultsanchor, accessed February 25, 2022.

Harris & Lee Environmental Sciences, LLC, 2022. Limited Phase II Investigation Results, 2136-2154 San Pablo Avenue.

Berkeley, California 94702, May 3.

Heather Lee, Heather Lee Consulting. Personal communication with Alison Lenci at Urban Planning Partners, Inc., April 14,2022.

Intergovernmental Panel on Climate Change, 2013. Climate Change 2013, the Physical Science Basis.

Meredith Lear, TMD. Email communication with Sharon Gong of the City of Berkeley, February 10, 2022.

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

Partner Engineering and Science, Inc., 2018. Phase I Environmental Site Assessment Report, 2136-2154 San Pablo Avenue, Berkeley, California 94702, October 4.

Rockridge Geotechnical, 2019. Geotechnical Investigation, Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California, October 23.

San Francisco Bay Regional Water Quality Control Board, 2015. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES Permit No. CAS612008, November 19.

San Francisco Bay Regional Water Quality Control Board, 2017. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). Incorporating all amendments as of May 4.

San Pablo Investors Two, LLC, 2021, Stormwater Requirements Checklist, 2136 San Pablo Mixed-Use, March 8.

Sowers, Janet M, 1993. Creek and Watershed Map of Oakland and Berkeley, The Oakland Museum of California (Revised 2000). Available online at: explore.museumca.org/creeks/MapOak.html, accessed May 2020.

State Water Resources Control Board (State Water Board), 2018. Final 2018 California Integrated Report (Clean Water Act Section 303(d) List/305(b) Report), Available online at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html, accessed September 27, 2021.

United States Geological Survey (USGS), 2016. Earthquake Outlook for the San Francisco Bay Region 2014-2043, USGS Fact Sheet 2016-3020. Revised August.

APPENDIX A: CALEEMOD OUTPUT

2136-54 San Pablo Ave - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2136-54 San Pablo Ave

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.30	1000sqft	0.00	1,300.00	0
Enclosed Parking with Elevator	50.00	Space	0.00	20,800.00	0
Apartments Mid Rise	126.00	Dwelling Unit	2.00	81,000.00	360

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Default values were changed based on project plan. Changed lot acreage to 2 acres in order to generate a construction equipment list for multi-story buildings.Parking square footage also includes mech. use (750 sq ft)

Demolition -

Grading - Net cut volume was provided by the applicant

Vehicle Trips - Trip generation obtained from Abrams Associates Traffic Engineering, 2021

Woodstoves - The proposed project does not include woodstoves or fireplaces.

Energy Use - Building will be all electric. To be conersvative, default assumptions about natural gas used.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Measure B of COA #49 requires use of Tier 4 final engines or Tier 2 or 3 engines with VDECS. This is not considered mitigation.

2136-54 San Pablo Ave - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	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	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblFireplaces	NumberGas	18.90	0.00
tblFireplaces	NumberNoFireplace	5.04	0.00
tblFireplaces	NumberWood	21.42	0.00
tblGrading	MaterialExported	0.00	330.00
tblLandUse	LandUseSquareFeet	20,000.00	20,800.00
tblLandUse	LandUseSquareFeet	126,000.00	81,000.00
tblLandUse	LotAcreage	0.03	0.00
tblLandUse	LotAcreage	0.45	0.00
tblLandUse	LotAcreage	3.32	2.00
tblVehicleTrips	ST_TR	4.91	3.98
tblVehicleTrips	ST_TR	2.21	8.20
tblVehicleTrips	SU_TR	4.09	3.31
tblVehicleTrips	SU_TR	0.70	2.60
tblVehicleTrips	WD_TR	5.44	4.40
tblVehicleTrips	WD_TR	9.74	36.15
tblWoodstoves	NumberCatalytic	2.52	0.00
tblWoodstoves	NumberNoncatalytic	2.52	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2023	0.7870	1.4972	1.7348	3.6900e-003	0.1209	0.0628	0.1836	0.0364	0.0603	0.0967	0.0000	318.6585	318.6585	0.0425	7.4300e-003	321.9349
Maximum	**0.7870**	**1.4972**	**1.7348**	**3.6900e-003**	**0.1209**	**0.0628**	**0.1836**	**0.0364**	**0.0603**	**0.0967**	**0.0000**	**318.6585**	**318.6585**	**0.0425**	**7.4300e-003**	**321.9349**

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					
2023	0.6457	0.4945	1.8105	3.6900e-003	0.1209	4.5700e-003	0.1254	0.0364	4.5100e-003	0.0409	0.0000	318.6583	318.6583	0.0425	7.4300e-003	321.9347
Maximum	**0.6457**	**0.4945**	**1.8105**	**3.6900e-003**	**0.1209**	**4.5700e-003**	**0.1254**	**0.0364**	**4.5100e-003**	**0.0409**	**0.0000**	**318.6583**	**318.6583**	**0.0425**	**7.4300e-003**	**321.9347**

	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	**17.95**	**66.97**	**-4.36**	**0.00**	**0.00**	**92.72**	**31.69**	**0.00**	**92.51**	**57.67**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2023	4-1-2023	0.4867	0.1273
2	4-2-2023	7-1-2023	0.4701	0.1701
3	7-2-2023	9-30-2023	0.4701	0.1701
		Highest	0.4867	0.1701

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	0.4092	0.0108	0.9356	5.0000e-005		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	1.5291	1.5291	1.4700e-003	0.0000	1.5659
Energy	5.8700e-003	0.0502	0.0219	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	115.3227	115.3227	0.0104	2.1900e-003	116.2338
Mobile	0.2348	0.2634	2.1774	4.4800e-003	0.4801	3.3300e-003	0.4835	0.1283	3.1000e-003	0.1314	0.0000	420.1954	420.1954	0.0279	0.0204	426.9607
Waste						0.0000	0.0000		0.0000	0.0000	12.0110	0.0000	12.0110	0.7098	0.0000	29.7567
Water						0.0000	0.0000		0.0000	0.0000	2.6778	5.9475	8.6253	0.2760	6.6100e-003	17.4952
Total	**0.6498**	**0.3244**	**3.1349**	**4.8500e-003**	**0.4801**	**0.0126**	**0.4927**	**0.1283**	**0.0123**	**0.1406**	**14.6888**	**542.9947**	**557.6834**	**1.0256**	**0.0292**	**592.0122**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.4092	0.0108	0.9356	5.0000e-005		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	1.5291	1.5291	1.4700e-003	0.0000	1.5659
Energy	5.8700e-003	0.0502	0.0219	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	115.3227	115.3227	0.0104	2.1900e-003	116.2338
Mobile	0.2348	0.2634	2.1774	4.4800e-003	0.4801	3.3300e-003	0.4835	0.1283	3.1000e-003	0.1314	0.0000	420.1954	420.1954	0.0279	0.0204	426.9607
Waste						0.0000	0.0000		0.0000	0.0000	12.0110	0.0000	12.0110	0.7098	0.0000	29.7567
Water						0.0000	0.0000		0.0000	0.0000	2.6778	5.9475	8.6253	0.2760	6.6100e-003	17.4952
Total	**0.6498**	**0.3244**	**3.1349**	**4.8500e-003**	**0.4801**	**0.0126**	**0.4927**	**0.1283**	**0.0123**	**0.1406**	**14.6888**	**542.9947**	**557.6834**	**1.0256**	**0.0292**	**592.0122**

	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	Demolition	Demolition	1/2/2023	1/27/2023	5	20	
2	Site Preparation	Site Preparation	1/28/2023	1/31/2023	5	2	
3	Grading	Grading	2/1/2023	2/6/2023	5	4	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	2/7/2023	11/13/2023	5	200	
5	Paving	Paving	11/14/2023	11/27/2023	5	10	
6	Architectural Coating	Architectural Coating	11/28/2023	12/11/2023	5	10	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 164,025; Residential Outdoor: 54,675; Non-Residential Indoor: 1,950; Non-Residential Outdoor: 650; Striped Parking Area: 1,656 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

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
Demolition	5	13.00	0.00	37.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	41.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	103.00	18.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	21.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

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					3.9600e-003	0.0000	3.9600e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0147	0.1432	0.1346	2.4000e-004		6.7700e-003	6.7700e-003		6.3300e-003	6.3300e-003	0.0000	21.0866	21.0866	5.3500e-003	0.0000	21.2202
Total	**0.0147**	**0.1432**	**0.1346**	**2.4000e-004**	**3.9600e-003**	**6.7700e-003**	**0.0107**	**6.0000e-004**	**6.3300e-003**	**6.9300e-003**	**0.0000**	**21.0866**	**21.0866**	**5.3500e-003**	**0.0000**	**21.2202**

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	4.0000e-005	2.5100e-003	5.9000e-004	1.0000e-005	3.1000e-004	2.0000e-005	3.3000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.1041	1.1041	4.0000e-005	1.7000e-004	1.1571
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.8800e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.8051	0.8051	2.0000e-005	2.0000e-005	0.8123
Total	**3.7000e-004**	**2.7400e-003**	**3.4700e-003**	**2.0000e-005**	**1.3400e-003**	**3.0000e-005**	**1.3600e-003**	**3.6000e-004**	**2.0000e-005**	**3.9000e-004**	**0.0000**	**1.9092**	**1.9092**	**6.0000e-005**	**1.9000e-004**	**1.9694**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

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					3.9600e-003	0.0000	3.9600e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8100e-003	0.0122	0.1472	2.4000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	21.0865	21.0865	5.3500e-003	0.0000	21.2202
Total	**2.8100e-003**	**0.0122**	**0.1472**	**2.4000e-004**	**3.9600e-003**	**3.7000e-004**	**4.3300e-003**	**6.0000e-004**	**3.7000e-004**	**9.7000e-004**	**0.0000**	**21.0865**	**21.0865**	**5.3500e-003**	**0.0000**	**21.2202**

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	4.0000e-005	2.5100e-003	5.9000e-004	1.0000e-005	3.1000e-004	2.0000e-005	3.3000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.1041	1.1041	4.0000e-005	1.7000e-004	1.1571
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.8800e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.8051	0.8051	2.0000e-005	2.0000e-005	0.8123
Total	**3.7000e-004**	**2.7400e-003**	**3.4700e-003**	**2.0000e-005**	**1.3400e-003**	**3.0000e-005**	**1.3600e-003**	**3.6000e-004**	**2.0000e-005**	**3.9000e-004**	**0.0000**	**1.9092**	**1.9092**	**6.0000e-005**	**1.9000e-004**	**1.9694**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

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					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**1.1300e-003**	**0.0124**	**6.6400e-003**	**2.0000e-005**	**6.2700e-003**	**5.1000e-004**	**6.7800e-003**	**3.0000e-003**	**4.7000e-004**	**3.4700e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0495	0.0495	0.0000	0.0000	0.0500
Total	**2.0000e-005**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0495**	**0.0495**	**0.0000**	**0.0000**	**0.0500**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

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					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	9.1000e-004	8.6700e-003	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	**2.1000e-004**	**9.1000e-004**	**8.6700e-003**	**2.0000e-005**	**6.2700e-003**	**3.0000e-005**	**6.3000e-003**	**3.0000e-003**	**3.0000e-005**	**3.0300e-003**	**0.0000**	**1.5114**	**1.5114**	**4.9000e-004**	**0.0000**	**1.5236**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0495	0.0495	0.0000	0.0000	0.0500
Total	**2.0000e-005**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0495**	**0.0495**	**0.0000**	**0.0000**	**0.0500**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

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					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**2.6700e-003**	**0.0289**	**0.0174**	**4.0000e-005**	**0.0142**	**1.2100e-003**	**0.0154**	**6.8500e-003**	**1.1100e-003**	**7.9600e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

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	4.0000e-005	2.7800e-003	6.5000e-004	1.0000e-005	3.5000e-004	2.0000e-005	3.7000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.2234	1.2234	4.0000e-005	1.9000e-004	1.2822
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-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	0.1239	0.1239	0.0000	0.0000	0.1250
Total	**9.0000e-005**	**2.8200e-003**	**1.0900e-003**	**1.0000e-005**	**5.1000e-004**	**2.0000e-005**	**5.3000e-004**	**1.4000e-004**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**1.3473**	**1.3473**	**4.0000e-005**	**1.9000e-004**	**1.4072**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

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					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**0.0142**	**7.0000e-005**	**0.0143**	**6.8500e-003**	**7.0000e-005**	**6.9200e-003**	**0.0000**	**3.6208**	**3.6208**	**1.1700e-003**	**0.0000**	**3.6501**

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	4.0000e-005	2.7800e-003	6.5000e-004	1.0000e-005	3.5000e-004	2.0000e-005	3.7000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.2234	1.2234	4.0000e-005	1.9000e-004	1.2822
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-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	0.1239	0.1239	0.0000	0.0000	0.1250
Total	**9.0000e-005**	**2.8200e-003**	**1.0900e-003**	**1.0000e-005**	**5.1000e-004**	**2.0000e-005**	**5.3000e-004**	**1.4000e-004**	**2.0000e-005**	**1.6000e-004**	**0.0000**	**1.3473**	**1.3473**	**4.0000e-005**	**1.9000e-004**	**1.4072**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

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	0.1523	1.1710	1.2611	2.2100e-003		0.0515	0.0515		0.0497	0.0497	0.0000	181.5991	181.5991	0.0308	0.0000	182.3701
Total	**0.1523**	**1.1710**	**1.2611**	**2.2100e-003**		**0.0515**	**0.0515**		**0.0497**	**0.0497**	**0.0000**	**181.5991**	**181.5991**	**0.0308**	**0.0000**	**182.3701**

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	1.9200e-003	0.0800	0.0250	3.7000e-004	0.0118	4.7000e-004	0.0123	3.4200e-003	4.5000e-004	3.8600e-003	0.0000	35.5312	35.5312	7.2000e-004	5.2600e-003	37.1156
Worker	0.0264	0.0180	0.2284	6.9000e-004	0.0814	4.2000e-004	0.0818	0.0217	3.9000e-004	0.0220	0.0000	63.7878	63.7878	1.8300e-003	1.7500e-003	64.3552
Total	**0.0283**	**0.0981**	**0.2535**	**1.0600e-003**	**0.0932**	**8.9000e-004**	**0.0941**	**0.0251**	**8.4000e-004**	**0.0259**	**0.0000**	**99.3190**	**99.3190**	**2.5500e-003**	**7.0100e-003**	**101.4709**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

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	0.0293	0.3712	1.3124	2.2100e-003		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	181.5989	181.5989	0.0308	0.0000	182.3698
Total	**0.0293**	**0.3712**	**1.3124**	**2.2100e-003**		**3.0300e-003**	**3.0300e-003**		**3.0300e-003**	**3.0300e-003**	**0.0000**	**181.5989**	**181.5989**	**0.0308**	**0.0000**	**182.3698**

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	1.9200e-003	0.0800	0.0250	3.7000e-004	0.0118	4.7000e-004	0.0123	3.4200e-003	4.5000e-004	3.8600e-003	0.0000	35.5312	35.5312	7.2000e-004	5.2600e-003	37.1156
Worker	0.0264	0.0180	0.2284	6.9000e-004	0.0814	4.2000e-004	0.0818	0.0217	3.9000e-004	0.0220	0.0000	63.7878	63.7878	1.8300e-003	1.7500e-003	64.3552
Total	**0.0283**	**0.0981**	**0.2535**	**1.0600e-003**	**0.0932**	**8.9000e-004**	**0.0941**	**0.0251**	**8.4000e-004**	**0.0259**	**0.0000**	**99.3190**	**99.3190**	**2.5500e-003**	**7.0100e-003**	**101.4709**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

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	3.2200e-003	0.0312	0.0440	7.0000e-005		1.5400e-003	1.5400e-003		1.4200e-003	1.4200e-003	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.2200e-003**	**0.0312**	**0.0440**	**7.0000e-005**		**1.5400e-003**	**1.5400e-003**		**1.4200e-003**	**1.4200e-003**	**0.0000**	**5.8862**	**5.8862**	**1.8700e-003**	**0.0000**	**5.9329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.1000e-004	1.4400e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4025	0.4025	1.0000e-005	1.0000e-005	0.4061
Total	**1.7000e-004**	**1.1000e-004**	**1.4400e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4025**	**0.4025**	**1.0000e-005**	**1.0000e-005**	**0.4061**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

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	8.0000e-004	3.4600e-003	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.8862	5.8862	1.8700e-003	0.0000	5.9329
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0000e-004**	**3.4600e-003**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.8862**	**5.8862**	**1.8700e-003**	**0.0000**	**5.9329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.1000e-004	1.4400e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4025	0.4025	1.0000e-005	1.0000e-005	0.4061
Total	**1.7000e-004**	**1.1000e-004**	**1.4400e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4025**	**0.4025**	**1.0000e-005**	**1.0000e-005**	**0.4061**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

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	0.5827					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	6.5100e-003	9.0600e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.5837**	**6.5100e-003**	**9.0600e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.8000e-004	2.3300e-003	1.0000e-005	8.3000e-004	0.0000	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6503	0.6503	2.0000e-005	2.0000e-005	0.6561
Total	**2.7000e-004**	**1.8000e-004**	**2.3300e-003**	**1.0000e-005**	**8.3000e-004**	**0.0000**	**8.3000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6503**	**0.6503**	**2.0000e-005**	**2.0000e-005**	**0.6561**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

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	0.5827					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2785
Total	**0.5829**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2785**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.8000e-004	2.3300e-003	1.0000e-005	8.3000e-004	0.0000	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6503	0.6503	2.0000e-005	2.0000e-005	0.6561
Total	**2.7000e-004**	**1.8000e-004**	**2.3300e-003**	**1.0000e-005**	**8.3000e-004**	**0.0000**	**8.3000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6503**	**0.6503**	**2.0000e-005**	**2.0000e-005**	**0.6561**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2348	0.2634	2.1774	4.4800e-003	0.4801	3.3300e-003	0.4835	0.1283	3.1000e-003	0.1314	0.0000	420.1954	420.1954	0.0279	0.0204	426.9607
Unmitigated	0.2348	0.2634	2.1774	4.4800e-003	0.4801	3.3300e-003	0.4835	0.1283	3.1000e-003	0.1314	0.0000	420.1954	420.1954	0.0279	0.0204	426.9607

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	554.40	501.48	417.06	1,217,671	1,217,671
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	47.00	10.66	3.38	85,012	85,012
Total	601.40	512.14	420.44	1,302,683	1,302,683

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
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.553342	0.058522	0.188738	0.121080	0.023016	0.005623	0.010412	0.007562	0.000987	0.000568	0.026444	0.000834	0.002871
Enclosed Parking with Elevator	0.553342	0.058522	0.188738	0.121080	0.023016	0.005623	0.010412	0.007562	0.000987	0.000568	0.026444	0.000834	0.002871
General Office Building	0.553342	0.058522	0.188738	0.121080	0.023016	0.005623	0.010412	0.007562	0.000987	0.000568	0.026444	0.000834	0.002871

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	57.2247	57.2247	9.2600e-003	1.1200e-003	57.7906
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	57.2247	57.2247	9.2600e-003	1.1200e-003	57.7906
NaturalGas Mitigated	5.8700e-003	0.0502	0.0219	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	58.0979	58.0979	1.1100e-003	1.0700e-003	58.4432
NaturalGas Unmitigated	5.8700e-003	0.0502	0.0219	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	58.0979	58.0979	1.1100e-003	1.0700e-003	58.4432

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	1.06382e+006	5.7400e-003	0.0490	0.0209	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	56.7695	56.7695	1.0900e-003	1.0400e-003	57.1068
Enclosed Parking with Elevator	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
General Office Building	24895	1.3000e-004	1.2200e-003	1.0300e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3285	1.3285	3.0000e-005	2.0000e-005	1.3364
Total		**5.8700e-003**	**0.0502**	**0.0219**	**3.2000e-004**		**4.0500e-003**	**4.0500e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**58.0979**	**58.0979**	**1.1200e-003**	**1.0600e-003**	**58.4432**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	1.06382e+006	5.7400e-003	0.0490	0.0209	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	56.7695	56.7695	1.0900e-003	1.0400e-003	57.1068
Enclosed Parking with Elevator	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
General Office Building	24895	1.3000e-004	1.2200e-003	1.0300e-003	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.3285	1.3285	3.0000e-005	2.0000e-005	1.3364
Total		**5.8700e-003**	**0.0502**	**0.0219**	**3.2000e-004**		**4.0500e-003**	**4.0500e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**58.0979**	**58.0979**	**1.1200e-003**	**1.0600e-003**	**58.4432**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	489683	45.3073	7.3300e-003	8.9000e-004	45.7553
Enclosed Parking with Elevator	113152	10.4693	1.6900e-003	2.1000e-004	10.5728
General Office Building	15652	1.4482	2.3000e-004	3.0000e-005	1.4625
Total		**57.2247**	**9.2500e-003**	**1.1300e-003**	**57.7906**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	489683	45.3073	7.3300e-003	8.9000e-004	45.7553
Enclosed Parking with Elevator	113152	10.4693	1.6900e-003	2.1000e-004	10.5728
General Office Building	15652	1.4482	2.3000e-004	3.0000e-005	1.4625
Total		**57.2247**	**9.2500e-003**	**1.1300e-003**	**57.7906**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.4092	0.0108	0.9356	5.0000e-005		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	1.5291	1.5291	1.4700e-003	0.0000	1.5659
Unmitigated	0.4092	0.0108	0.9356	5.0000e-005		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	1.5291	1.5291	1.4700e-003	0.0000	1.5659

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	0.0583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0282	0.0108	0.9356	5.0000e-005		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	1.5291	1.5291	1.4700e-003	0.0000	1.5659
Total	**0.4092**	**0.0108**	**0.9356**	**5.0000e-005**		**5.1800e-003**	**5.1800e-003**		**5.1800e-003**	**5.1800e-003**	**0.0000**	**1.5291**	**1.5291**	**1.4700e-003**	**0.0000**	**1.5659**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0282	0.0108	0.9356	5.0000e-005		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003	0.0000	1.5291	1.5291	1.4700e-003	0.0000	1.5659
Total	**0.4092**	**0.0108**	**0.9356**	**5.0000e-005**		**5.1800e-003**	**5.1800e-003**		**5.1800e-003**	**5.1800e-003**	**0.0000**	**1.5291**	**1.5291**	**1.4700e-003**	**0.0000**	**1.5659**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.6253	0.2760	6.6100e-003	17.4952
Unmitigated	8.6253	0.2760	6.6100e-003	17.4952

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.20941 / 5.1755	8.3905	0.2684	6.4300e-003	17.0176
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.231054 / 0.141614	0.2348	7.5600e-003	1.8000e-004	0.4776
Total		**8.6253**	**0.2760**	**6.6100e-003**	**17.4952**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.20941 / 5.1755	8.3905	0.2684	6.4300e-003	17.0176
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.231054 / 0.141614	0.2348	7.5600e-003	1.8000e-004	0.4776
Total		**8.6253**	**0.2760**	**6.6100e-003**	**17.4952**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.0110	0.7098	0.0000	29.7567
Unmitigated	12.0110	0.7098	0.0000	29.7567

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	57.96	11.7654	0.6953	0.0000	29.1482
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	1.21	0.2456	0.0145	0.0000	0.6085
Total		**12.0110**	**0.7098**	**0.0000**	**29.7567**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	57.96	11.7654	0.6953	0.0000	29.1482
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	1.21	0.2456	0.0145	0.0000	0.6085
Total		**12.0110**	**0.7098**	**0.0000**	**29.7567**

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

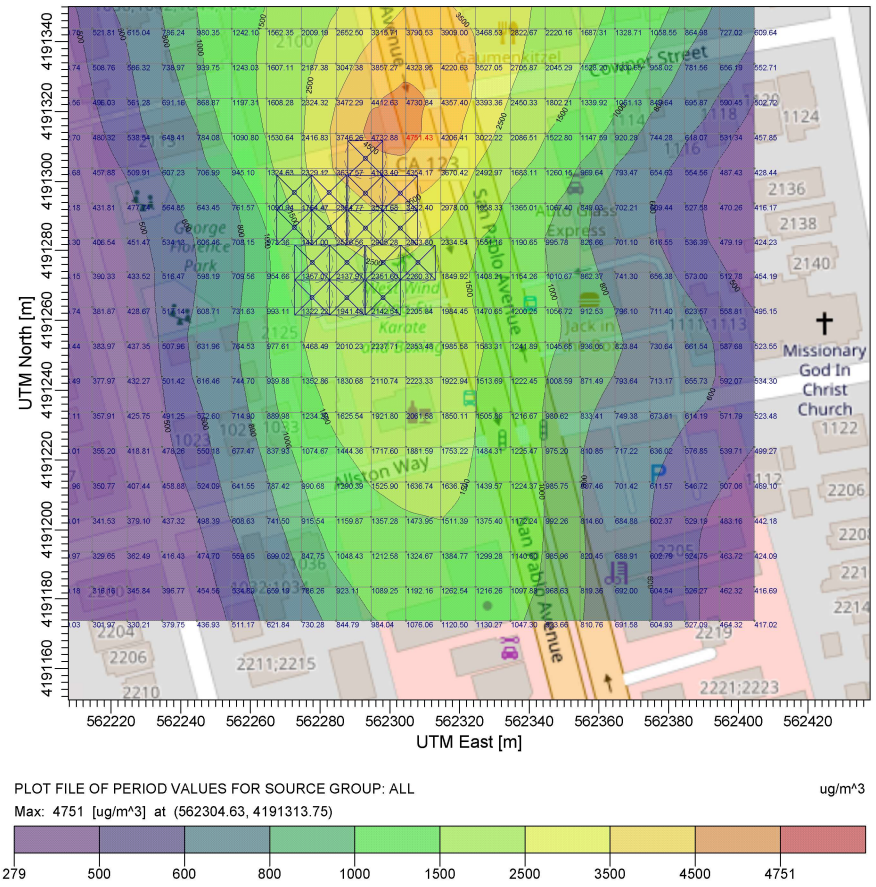
Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

PROJECT TITLE:

C:\Users\yilin\Desktop\AERMOD\AERMOD.isc



COMMENTS:	SOURCES: **16**	COMPANY NAME: **Baseline Environmental Consulting**	
	RECEPTORS: **441**	MODELER: **Y.Tian**	
	OUTPUT TYPE: **Concentration**	SCALE: 1:1,447 — 0 — 0.05 km	
	MAX: **4751 ug/m^3**	DATE: **3/23/2022**	PROJECT NO.: **21217-00**

Summary of ISCST3 Model Parameters, Assumptions, and Results for DPM and $PM_{2.5}$ Emissions during Construction without COA #49

ISCST3 Model Parameters and Assumptions			
Source Type	**Units**	**Value**	**Notes**
Volume Source: Off-Road Equipment Exhaust			
Hours/Work Day	hours/day	8.83	8 AM to 6 PM Monday through Friday. 9 AM to noon on Saturday
DPM Emission Rate without COA #49	gram/second	0.007182	Exhaust PM_{10} from off-road equipment
Number of Sources	count	16	SMAQMD, 2015
Emission Rate/Source without COA #49	gram/second	0.000449	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			
Emissions Source	**Pollutant**	**Annual Average Concentration**	**Notes**
Construction without COA #49	DPM ($\mu g/m^3$)	0.6073	Nearest residential receptor
	$PM_{2.5}$ ($\mu g/m^3$)	0.5831	Nearest residential receptor

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 for DPM Emissions during Construction without COA #49

Health Risk Assessment Parameters and Results				
Inhalation Cancer Risk Assessment for DPM	**Units**	**3rd Trimester**	**0-2 Year Infant**	**Notes**
DPM Concentration (C)	µg/m^3	0.607	0.607	ISCST3 Annual Average
Daily Breathing Rate (DBR)	L/kg-day	361	1090	95th percentile under age of 2 (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-m^3/µg-L	0.000001	0.000001	Conversion of µg to mg and L to m^3
Dose (D)	mg/kg/day	0.000210	0.000635	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	0.75	Based on total construction period of 12 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 at MEIR location	per million	7.0	63.6	D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015)
Total Cancer Risk	per million	**70.6**		
Hazard Index for DPM	**Units**	**Value**	**Notes**	
Chronic REL	µg/m^3	5.0	OEHHA, 2015	
Chronic Hazard Index for DPM	unitless	0.1215	At MEIR location	

Notes:

DPM = diesel particulate matter

REL = reference exposure level

µg/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 ISCST3 Model Parameters, Assumptions, and Results for DPM and $PM_{2.5}$ Emissions during Construction with COA #49

ISCST3 Model Parameters and Assumptions			
Source Type	**Units**	**Value**	**Notes**
Volume Source: Off-Road Equipment Exhaust			
Hours/Work Day	hours/day	8.83	8 AM to 6 PM Monday through Friday. 9 AM to noon on Saturday
DPM Emission Rate with COA #49	gram/second	0.000421	Exhaust PM_{10} from off-road equipment
Number of Sources	count	16	SMAQMD, 2015
Emission Rate/Source with COA #49	gram/second	0.000026	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			
Emissions Source	**Pollutant**	**Annual Average Concentration**	**Notes**
Construction with COA #49	DPM ($\mu g/m^3$)	0.0356	Nearest residential receptor
	$PM_{2.5}$ ($\mu g/m^3$)	0.0352	Nearest residential receptor

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 ISCST3 Model Parameters, Assumptions, and Results for DPM and $PM_{2.5}$ Emissions during Construction with COA #49

Health Risk Assessment Parameters and Results				
Inhalation Cancer Risk Assessment for DPM	**Units**	**3rd Trimester**	**0-2 Year Infant**	**Notes**
DPM Concentration (C)	µg/m^3	0.036	0.036	ISCST3 Annual Average
Daily Breathing Rate (DBR)	L/kg-day	361	1090	95th percentile under age of 2 (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-m^3/µg-L	0.000001	0.000001	Conversion of µg to mg and L to m^3
Dose (D)	mg/kg/day	0.000012	0.000037	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	0.75	Based on total construction period of 12 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 at MEIR location	per million	0.4	3.7	D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015)
Total Cancer Risk	per million	4.1		
Hazard Index for DPM	**Units**	**Notes**	**Notes**	
Chronic REL	µg/m^3	5.0	OEHHA, 2015	
Chronic Hazard Index for DPM	unitless	0.0071	At MEIR location	

Notes:

DPM = diesel particulate matter

REL = reference exposure level

µg/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.*

Step 1: Enter Facility Data

Plant Name	1110 University Avenue
Plant No.	

Step 2: Estimate Distance

What is the distance (m) from the facility boundary to the MEI?	175

Step 3: Enter Emissions Data

Step 4: Specify Source Type

Does facility have only diesel backup generators?	yes
Is this analysis for a gas station?	no

Note: Default generic distance multiplier used if source is not a generator or gas station.

Step 5: Read Estimates

Total Cancer Risk	1.000	per 1,000,000
Total Chronic Hazard	0.000	
Total PM2.5 Concentration	0.000	$\mu g/m^3$

Chemical Name	CAS No. (dashes removed)	Rate (lb/day)	Risk (# / 1,000,000)	Hazard (Index)	Concentration (µg/m3)
Fine Particulate Matter (PM2.5)					
1,1,1-Trichloroethane	71556	0.00E+00			
1,1,2,2-Tetrachloroethane	79345	0.00E+00			
1,1,2-Trichloroethane	79005	0.00E+00			
1,1-Dichloroethane	75343	0.00E+00			
1,1-Dichloroethylene	75354	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268879	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	0.00E+00			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	0.00E+00			
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	0.00E+00			
1,2,3,7,8-Pentachlorodibenzofuran	57117416	0.00E+00			
1,2-Dibromo-3-chloropropane	96128	0.00E+00			
1,2-Dibromoethane	106934	0.00E+00			
1,2-Dichloroethane	107062	0.00E+00			
1,2-Epoxybutane	106887	0.00E+00			
1,3-Butadiene	106990	0.00E+00			
1,3-Propane sultone	1120714	0.00E+00			
1,4-Dichlorobenzene	106467	0.00E+00			
1,4-Dioxane	123911	0.00E+00			
1,6-Dinitropyrene	42397648	0.00E+00			
1,8-Dinitropyrene	42397659	0.00E+00			
1-Nitropyrene	5522430	0.00E+00			
2',3,4,4',5-PeCB	65510443	0.00E+00			
2,3',4,4',5,5'-HxCB	52663726	0.00E+00			
2,3',4,4',5-PeCB	31508006	0.00E+00			
2,3,3',4,4',5'-HxCB	69782907	0.00E+00			
2,3,3',4,4',5,5'-HpCB	39635319	0.00E+00			
2,3,3',4,4',5-HxCB	38380084	0.00E+00			
2,3,3',4,4'-PeCB	32598144	0.00E+00			
2,3,4,4',5-PeCB	74472370	0.00E+00			
2,3,4,6,7,8-hexachlorodibenzofuran	60851345	0.00E+00			
2,3,4,7,8-Pentachlorodibenzofuran	57117314	0.00E+00			
2,3,7,8-Tetrachlorodibenzo-p-dioxin and related comp	1746016	0.00E+00			
2,3,7,8-Tetrachlorodibenzofuran	51207319	0.00E+00			
2,4,6-Trichlorophenol	88062	0.00E+00			
2,4-Diaminoanisole	615054	0.00E+00			
2,4-Diaminotoluene	95807	0.00E+00			
2,4-Dinitrotoluene	121142	0.00E+00			
2-Aminoanthraquinone	117793	0.00E+00			
2-Nitrofluorene	607578	0.00E+00			
3,3',4,4',5,5'-HxCB	32774166	0.00E+00			
3,3',4,4',5-PeCB	57465288	0.00E+00			
3,3',4,4'-TCB	32598133	0.00E+00			
3,3-Dichlorobenzidine	91941	0.00E+00			
3,4,4'5-TCB	70362504	0.00E+00			
3-Methylcholanthrene	56495	0.00E+00			
4,4-Methylene bis(2-chloroaniline)	101144	0.00E+00			
4,4-Methylenedianiline	101779	0.00E+00			
4-Chloro-ortho-phenylenediamine	95830	0.00E+00			
4-Dimethylaminoazobenzene	60117	0.00E+00			
4-Nitropyrene	57835924	0.00E+00			
5-Methylchrysene	3697243	0.00E+00			
5-Nitroacenaphthene	602879	0.00E+00			
6-Nitrochrysene	7496028	0.00E+00			
7,12-Dimethylbenz(a)anthracene	57976	0.00E+00			
7H-dibenzo(c,g)carbazole	194592	0.00E+00			
Acetaldehyde	75070	0.00E+00			
Acetamide	60355	0.00E+00			
Acrolein	107028	0.00E+00			
Acrylamide	79061	0.00E+00			
Acrylic Acid	79107	0.00E+00			
Acrylonitrile	107131	0.00E+00			
Allyl chloride	107051	0.00E+00			
Ammonia	7664417	0.00E+00			
Aniline	62533	0.00E+00			
Arsenic	7440382	0.00E+00			
Arsine	7784421	0.00E+00			
Asbestos [1/(100 PCM fibers/m^3)]^-1	1332214	0.00E+00			
Benz(a)anthracene	56553	0.00E+00			
Benzene	71432	0.00E+00			
Benzidine	92875	0.00E+00			
Benzo(a)pyrene	50328	0.00E+00			
Benzo(b)fluoranthene	205992	0.00E+00			
Benzo(j)fluoranthene	205823	0.00E+00			
Benzo(k)fluoranthene	207089	0.00E+00			
Benzyl Chloride	100447	0.00E+00			
Beryllium	7440417	0.00E+00			
Bis(2-chloroethyl) Ether	111444	0.00E+00			
Bis(2-chloromethyl) Ether	542881	0.00E+00			
Cadmium	7440439	0.00E+00			
Caprolactam	105602	0.00E+00			
Carbon Disulfide	75150	0.00E+00			
Carbon Monoxide	630080	0.00E+00			
Carbon Tetrachloride	56235	0.00E+00			
Carbonyl Sulfide	463581	0.00E+00			
Chlorinated paraffins (Avg. chain length C12; approx. 6	108171262	0.00E+00			
Chlorine	7782505	0.00E+00			
Chlorine Dioxide	10049044	0.00E+00			
Chlorite	7758192	0.00E+00			
Chlorobenzene	108907	0.00E+00			
Chlorodibromomethane	124481	0.00E+00			
Chloroethane (Ethyl Chloride)	75003	0.00E+00			
Chloroform	67663	0.00E+00			
Chloropicrin	76062	0.00E+00			
Chromic Trioxide	1333820	0.00E+00			
Chromium-hexavalent	18540299	0.00E+00			
Barium chromate2	10294403	0.00E+00			

	Calcium chromate2	13765190	0.00E+00					
	Lead chromate2	7758976	0.00E+00					
	Sodium dichromate2	10588019	0.00E+00					
	Strontium chromate2	7789062	0.00E+00					
	CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.00E+00					
	Chrysene	218019	0.00E+00					
	Copper	7440508	0.00E+00					
	Copper and Copper Compounds	7440508	0.00E+00					
	Cresol Mixtures	1319773	0.00E+00					
	Cupferron	135206	0.00E+00					
	Cyanide	57125	0.00E+00					
	Di(2-ethylhexyl)phthalate	117817	0.00E+00					
	Dibenz(a-h)acridine	226368	0.00E+00					
	Dibenz(a-h)anthracene	53703	0.00E+00					
	Dibenz(a-j)acridine	224420	0.00E+00					
	Dibenzo(a-e)pyrene	192654	0.00E+00					
	Dibenzo(a-h)pyrene	189640	0.00E+00					
	Dibenzo(a-i)pyrene	189559	0.00E+00					
	Dibenzo(a-l)pyrene	191300	0.00E+00					
	Diesel Exhaust Particulate	85105	7.11E-03	1.00E+01	2.69E-03			
	Diethanolamine	111422	0.00E+00					
	Dimethylformamide	68122	0.00E+00					
	Direct Black 38 (Technical Grade)	1937377	0.00E+00					
	Direct Blue 6 (Technical Grade)	2602462	0.00E+00					
	Direct Brown 95 (Technical Grade)	16071866	0.00E+00					
	Epichlorohydrin	106898	0.00E+00					
	Ethylbenzene	100414	0.00E+00					
	Ethylene Glycol	107211	0.00E+00					
	Ethylene Glycol Monobutyl Ether	111762	0.00E+00					
	Ethylene Glycol Monoethyl Ether	110805	0.00E+00					
	Ethylene Glycol Monoethyl Ether Acetate	111159	0.00E+00					
	Ethylene Glycol Monomethyl Ether	109864	0.00E+00					
	Ethylene Glycol Monomethyl Ether Acetate	110496	0.00E+00					
	Ethylene Oxide	75218	0.00E+00					
	Ethylene Thiourea	96457	0.00E+00					
	Fluorides	1101	0.00E+00					
	Formaldehyde (gas)	50000	0.00E+00					
	Glutaraldehyde	111308	0.00E+00					
	Hexachlorobenzene	118741	0.00E+00					
	Hexachlorocyclohexane (Technical Grade)	608731	0.00E+00					
	Hexachlorocyclohexane- Alpha Isomer	319846	0.00E+00					
	Hexachlorocyclohexane- Beta Isomer	319857	0.00E+00					
	Hexachlorocyclohexane- Gamma Isomer	58899	0.00E+00					
	Hydrazine	302012	0.00E+00					
	Hydrogen Chloride	7647010	0.00E+00					
	Hydrogen Cyanide	74908	0.00E+00					
	Hydrogen Fluoride	7664393	0.00E+00					
	Hydrogen Selenide	7783075	0.00E+00					
	Hydrogen Sulfide	7783064	0.00E+00					
	Indeno(1-2-3-c-d)pyrene	193395	0.00E+00					
	Isophorone	78591	0.00E+00					
	Isopropyl Alcohol	67630	0.00E+00					
	Lead Acetate	301042	0.00E+00					
	Lead and Lead Compounds	7439921	0.00E+00					
	Lead Phosphate	7446277	0.00E+00					
	Lead Subacetate	1335326	0.00E+00					
	m-CRESOL	108394	0.00E+00					
	m-XYLENE	108383	0.00E+00					
	Maleic Anhydride	108316	0.00E+00					
	Manganese & Manganese Compounds	7439965	0.00E+00					
	Mercury (Inorganic)	7439976	0.00E+00					
	Mercuric chloride	7487947	0.00E+00					
	Methanol	67561	0.00E+00					
	Methyl Bromide	74839	0.00E+00					
	Methyl Ethyl Ketone	78933	0.00E+00					
	Methyl Isocyanate	624839	0.00E+00					
	Methyl Tertiary Butyl Ether	1634044	0.00E+00					
	Methylene Chloride (Dichloromethane)	75092	0.00E+00					
	Methylene Diphenyl Isocyanate (MDI)	101688	0.00E+00					
	Michlers Ketone	90948	0.00E+00					
	n-Hexane	110543	0.00E+00					
	n-Nitroso-n-methylethylamine	10595956	0.00E+00					
	n-Nitrosodi-n-Butylamine	924163	0.00E+00					
	n-Nitrosodi-n-Propylamine	621647	0.00E+00					
	n-Nitrosodiethylamine	55185	0.00E+00					
	n-Nitrosodimethylamine	62759	0.00E+00					
	n-Nitrosodiphenylamine	86306	0.00E+00					
	n-Nitrosomorpholine	59892	0.00E+00					
	n-Nitrosopiperidine	100754	0.00E+00					
	n-Nitrosopyrrolidine	930552	0.00E+00					
	Naphthalene	91203	0.00E+00					
	Nickel and Nickel Compounds	7440020	0.00E+00					
	Nickel acetate	373024	0.00E+00					
	Nickel carbonate	3333673	0.00E+00					
	Nickel carbonyl	13463393	0.00E+00					
	Nickel hydroxide	12054487	0.00E+00					
	Nickelocene	1271289	0.00E+00					
	Nickel Oxide	1313991	0.00E+00					
	Nickel Refinery Dust	1146	0.00E+00					
	Nickel Subsulfide	12035722	0.00E+00					
	Nitric Acid	7697372	0.00E+00					
	Nitrogen Dioxide	10102440	0.00E+00					
	o-CRESOL	95487	0.00E+00					
	o-XYLENE	95476	0.00E+00					
	Oleum	8014957	0.00E+00					
	Ozone	10028156	0.00E+00					
	p-Chloro-o-toluidine	95692	0.00E+00					
	p-Cresidine	120718	0.00E+00					
	p-CRESOL	106445	0.00E+00					
	p-Nitrosodiphenylamine	156105	0.00E+00					
	p-XYLENE	106423	0.00E+00					
	Pentachlorophenol	87865	0.00E+00					
	Perchloroethylene	127184	0.00E+00					
	Phenol	108952	0.00E+00					
	Phosgene	75445	0.00E+00					
	Phosphine	7803512	0.00E+00					
	Phosphoric Acid	7664382	0.00E+00					
	Phthalic Anhydride	85449	0.00E+00					
	Polychlorinated Biphenyls	1336363	0.00E+00					
	Potassium Bromate	7758012	0.00E+00					
	Propylene	115071	0.00E+00					
	Propylene Glycol Monomethyl Ether	107982	0.00E+00					
	Propylene oxide	75569	0.00E+00					
	Selenium	7782492	0.00E+00					
	Selenium sulfide	7446346	0.00E+00					
	Silica (crystalline, respirable)	7631869	0.00E+00					
	Sodium hydroxide	1310732	0.00E+00					
	Styrene	100425	0.00E+00					
	Sulfates	9960	0.00E+00					
	Sulfur Dioxide	7446095	0.00E+00					
	Sulfuric Acid	7664939	0.00E+00					
	Sulfur Trioxide	7446719	0.00E+00					

Tertiary-butyl acetate	540885	0.00E+00			
Tetrachloroethylene	127184	0.00E+00			
Thioacetamide	62555	0.00E+00			
Toluene	108883	0.00E+00			
Toluene Diisocyanates	26471625	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	584849	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	91087	0.00E+00			
Trichloroethylene	79016	0.00E+00			
Triethylamine	121448	0.00E+00			
Urethane	51796	0.00E+00			
Vanadium pentoxide	1314621	0.00E+00			
Vinyl acetate	108054	0.00E+00			
Vinyl chloride	75014	0.00E+00			
Xylenes (technical mixture of m, o, p-isomers)	1330207	0.00E+00			
Vanadium	7440622	0.00E+00			
	TOTAL UNADJUSTED Risk Values		**10.000**	**0.003**	**0.000**

Step 1: Enter Facility Data

Plant Name	2100 San Pablo
Plant No.	

Step 2: Estimate Distance

What is the distance (m) from the facility boundary to the MEI?	10

Step 3: Enter Emissions Data

Step 4: Specify Source Type

Does facility have only diesel backup generators?	yes
Is this analysis for a gas station?	no

Note: Default generic distance multiplier used if source is not a generator or gas station.

Step 5: Read Estimates

Total Cancer Risk	10.000	per 1,000,000
Total Chronic Hazard	0.003	
Total PM2.5 Concentration	0.000	µg/m³

Chemical Name	CAS No. (dashes removed)	Rate (lb/day)	Risk (# / 1,000,000)	Hazard (Index)	Concentration (µg/m3)
Fine Particulate Matter (PM2.5)					
1,1,1-Trichloroethane	71556	0.00E+00			
1,1,2,2-Tetrachloroethane	79345	0.00E+00			
1,1,2-Trichloroethane	79005	0.00E+00			
1,1-Dichloroethane	75343	0.00E+00			
1,1-Dichloroethylene	75354	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268879	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	0.00E+00			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	0.00E+00			
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	0.00E+00			
1,2,3,7,8-Pentachlorodibenzofuran	57117416	0.00E+00			
1,2-Dibromo-3-chloropropane	96128	0.00E+00			
1,2-Dibromoethane	106934	0.00E+00			
1,2-Dichloroethane	107062	0.00E+00			
1,2-Epoxybutane	106887	0.00E+00			
1,3-Butadiene	106990	0.00E+00			
1,3-Propane sultone	1120714	0.00E+00			
1,4-Dichlorobenzene	106467	0.00E+00			
1,4-Dioxane	123911	0.00E+00			
1,6-Dinitropyrene	42397648	0.00E+00			
1,8-Dinitropyrene	42397659	0.00E+00			
1-Nitropyrene	5522430	0.00E+00			
2',3,4,4',5-PeCB	65510443	0.00E+00			
2,3',4,4',5,5'-HxCB	52663726	0.00E+00			
2,3',4,4',5-PeCB	31508006	0.00E+00			
2,3,3',4,4',5'-HxCB	69782907	0.00E+00			
2,3,3',4,4',5,5'-HpCB	39635319	0.00E+00			
2,3,3',4,4',5-HxCB	38380084	0.00E+00			
2,3,3',4,4'-PeCB	32598144	0.00E+00			
2,3,4,4',5-PeCB	74472370	0.00E+00			
2,3,4,6,7,8-hexachlorodibenzofuran	60851345	0.00E+00			
2,3,4,7,8-Pentachlorodibenzofuran	57117314	0.00E+00			
2,3,7,8-Tetrachlorodibenzo-p-dioxin and related comp	1746016	0.00E+00			
2,3,7,8-Tetrachlorodibenzofuran	51207319	0.00E+00			
2,4,6-Trichlorophenol	88062	0.00E+00			
2,4-Diaminoanisole	615054	0.00E+00			
2,4-Diaminotoluene	95807	0.00E+00			
2,4-Dinitrotoluene	121142	0.00E+00			
2-Aminoanthraquinone	117793	0.00E+00			
2-Nitrofluorene	607578	0.00E+00			
3,3',4,4',5,5'-HxCB	32774166	0.00E+00			
3,3',4,4',5-PeCB	57465288	0.00E+00			
3,3',4,4'-TCB	32598133	0.00E+00			
3,3-Dichlorobenzidine	91941	0.00E+00			
3,4,4'5-TCB	70362504	0.00E+00			
3-Methylcholanthrene	56495	0.00E+00			
4,4-Methylene bis(2-chloroaniline)	101144	0.00E+00			
4,4-Methylenedianiline	101779	0.00E+00			
4-Chloro-ortho-phenylenediamine	95830	0.00E+00			
4-Dimethylaminoazobenzene	60117	0.00E+00			
4-Nitropyrene	57835924	0.00E+00			
5-Methylchrysene	3697243	0.00E+00			
5-Nitroacenaphthene	602879	0.00E+00			
6-Nitrochrysene	7496028	0.00E+00			
7,12-Dimethylbenz(a)anthracene	57976	0.00E+00			
7H-dibenzo(c,g)carbazole	194592	0.00E+00			
Acetaldehyde	75070	0.00E+00			
Acetamide	60355	0.00E+00			
Acrolein	107028	0.00E+00			
Acrylamide	79061	0.00E+00			
Acrylic Acid	79107	0.00E+00			
Acrylonitrile	107131	0.00E+00			
Allyl chloride	107051	0.00E+00			
Ammonia	7664417	0.00E+00			
Aniline	62533	0.00E+00			
Arsenic	7440382	0.00E+00			
Arsine	7784421	0.00E+00			
Asbestos [1/(100 PCM fibers/m^3)]^-1	1332214	0.00E+00			
Benz(a)anthracene	56553	0.00E+00			
Benzene	71432	0.00E+00			
Benzidine	92875	0.00E+00			
Benzo(a)pyrene	50328	0.00E+00			
Benzo(b)fluoranthene	205992	0.00E+00			
Benzo(j)fluoranthene	205823	0.00E+00			
Benzo(k)fluoranthene	207089	0.00E+00			
Benzyl Chloride	100447	0.00E+00			
Beryllium	7440417	0.00E+00			
Bis(2-chloroethyl) Ether	111444	0.00E+00			
Bis(2-chloromethyl) Ether	542881	0.00E+00			
Cadmium	7440439	0.00E+00			
Caprolactam	105602	0.00E+00			
Carbon Disulfide	75150	0.00E+00			
Carbon Monoxide	630080	0.00E+00			
Carbon Tetrachloride	56235	0.00E+00			
Carbonyl Sulfide	463581	0.00E+00			
Chlorinated paraffins (Avg. chain length C12; approx. 6	108171262	0.00E+00			
Chlorine	7782505	0.00E+00			
Chlorine Dioxide	10049044	0.00E+00			
Chlorite	7758192	0.00E+00			
Chlorobenzene	108907	0.00E+00			
Chlorodibromomethane	124481	0.00E+00			
Chloroethane (Ethyl Chloride)	75003	0.00E+00			
Chloroform	67663	0.00E+00			
Chloropicrin	76062	0.00E+00			
Chromic Trioxide	1333820	0.00E+00			
Chromium-hexavalent	18540299	0.00E+00			
Barium chromate2	10294403	0.00E+00			

	Calcium chromate2	13765190	0.00E+00					
	Lead chromate2	7758976	0.00E+00					
	Sodium dichromate2	10588019	0.00E+00					
	Strontium chromate2	7789062	0.00E+00					
	CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.00E+00					
	Chrysene	218019	0.00E+00					
	Copper	7440508	0.00E+00					
	Copper and Copper Compounds	7440508	0.00E+00					
	Cresol Mixtures	1319773	0.00E+00					
	Cupferron	135206	0.00E+00					
	Cyanide	57125	0.00E+00					
	Di(2-ethylhexyl)phthalate	117817	0.00E+00					
	Dibenz(a-h)acridine	226368	0.00E+00					
	Dibenz(a-h)anthracene	53703	0.00E+00					
	Dibenz(a-j)acridine	224420	0.00E+00					
	Dibenzo(a-e)pyrene	192654	0.00E+00					
	Dibenzo(a-h)pyrene	189640	0.00E+00					
	Dibenzo(a-i)pyrene	189559	0.00E+00					
	Dibenzo(a-l)pyrene	191300	0.00E+00					
	Diesel Exhaust Particulate	85105	7.11E-03	1.00E+01	2.69E-03			
	Diethanolamine	111422	0.00E+00					
	Dimethylformamide	68122	0.00E+00					
	Direct Black 38 (Technical Grade)	1937377	0.00E+00					
	Direct Blue 6 (Technical Grade)	2602462	0.00E+00					
	Direct Brown 95 (Technical Grade)	16071866	0.00E+00					
	Epichlorohydrin	106898	0.00E+00					
	Ethylbenzene	100414	0.00E+00					
	Ethylene Glycol	107211	0.00E+00					
	Ethylene Glycol Monobutyl Ether	111762	0.00E+00					
	Ethylene Glycol Monoethyl Ether	110805	0.00E+00					
	Ethylene Glycol Monoethyl Ether Acetate	111159	0.00E+00					
	Ethylene Glycol Monomethyl Ether	109864	0.00E+00					
	Ethylene Glycol Monomethyl Ether Acetate	110496	0.00E+00					
	Ethylene Oxide	75218	0.00E+00					
	Ethylene Thiourea	96457	0.00E+00					
	Fluorides	1101	0.00E+00					
	Formaldehyde (gas)	50000	0.00E+00					
	Glutaraldehyde	111308	0.00E+00					
	Hexachlorobenzene	118741	0.00E+00					
	Hexachlorocyclohexane (Technical Grade)	608731	0.00E+00					
	Hexachlorocyclohexane- Alpha Isomer	319846	0.00E+00					
	Hexachlorocyclohexane- Beta Isomer	319857	0.00E+00					
	Hexachlorocyclohexane- Gamma Isomer	58899	0.00E+00					
	Hydrazine	302012	0.00E+00					
	Hydrogen Chloride	7647010	0.00E+00					
	Hydrogen Cyanide	74908	0.00E+00					
	Hydrogen Fluoride	7664393	0.00E+00					
	Hydrogen Selenide	7783075	0.00E+00					
	Hydrogen Sulfide	7783064	0.00E+00					
	Indeno(1-2-3-c-d)pyrene	193395	0.00E+00					
	Isophorone	78591	0.00E+00					
	Isopropyl Alcohol	67630	0.00E+00					
	Lead Acetate	301042	0.00E+00					
	Lead and Lead Compounds	7439921	0.00E+00					
	Lead Phosphate	7446277	0.00E+00					
	Lead Subacetate	1335326	0.00E+00					
	m-CRESOL	108394	0.00E+00					
	m-XYLENE	108383	0.00E+00					
	Maleic Anhydride	108316	0.00E+00					
	Manganese & Manganese Compounds	7439965	0.00E+00					
	Mercury (Inorganic)	7439976	0.00E+00					
	Mercuric chloride	7487947	0.00E+00					
	Methanol	67561	0.00E+00					
	Methyl Bromide	74839	0.00E+00					
	Methyl Ethyl Ketone	78933	0.00E+00					
	Methyl Isocyanate	624839	0.00E+00					
	Methyl Tertiary Butyl Ether	1634044	0.00E+00					
	Methylene Chloride (Dichloromethane)	75092	0.00E+00					
	Methylene Diphenyl Isocyanate (MDI)	101688	0.00E+00					
	Michlers Ketone	90948	0.00E+00					
	n-Hexane	110543	0.00E+00					
	n-Nitroso-n-methylethylamine	10595956	0.00E+00					
	n-Nitrosodi-n-Butylamine	924163	0.00E+00					
	n-Nitrosodi-n-Propylamine	621647	0.00E+00					
	n-Nitrosodiethylamine	55185	0.00E+00					
	n-Nitrosodimethylamine	62759	0.00E+00					
	n-Nitrosodiphenylamine	86306	0.00E+00					
	n-Nitrosomorpholine	59892	0.00E+00					
	n-Nitrosopiperidine	100754	0.00E+00					
	n-Nitrosopyrrolidine	930552	0.00E+00					
	Naphthalene	91203	0.00E+00					
	Nickel and Nickel Compounds	7440020	0.00E+00					
	Nickel acetate	373024	0.00E+00					
	Nickel carbonate	3333673	0.00E+00					
	Nickel carbonyl	13463393	0.00E+00					
	Nickel hydroxide	12054487	0.00E+00					
	Nickelocene	1271289	0.00E+00					
	Nickel Oxide	1313991	0.00E+00					
	Nickel Refinery Dust	1146	0.00E+00					
	Nickel Subsulfide	12035722	0.00E+00					
	Nitric Acid	7697372	0.00E+00					
	Nitrogen Dioxide	10102440	0.00E+00					
	o-CRESOL	95487	0.00E+00					
	o-XYLENE	95476	0.00E+00					
	Oleum	8014957	0.00E+00					
	Ozone	10028156	0.00E+00					
	p-Chloro-o-toluidine	95692	0.00E+00					
	p-Cresidine	120718	0.00E+00					
	p-CRESOL	106445	0.00E+00					
	p-Nitrosodiphenylamine	156105	0.00E+00					
	p-XYLENE	106423	0.00E+00					
	Pentachlorophenol	87865	0.00E+00					
	Perchloroethylene	127184	0.00E+00					
	Phenol	108952	0.00E+00					
	Phosgene	75445	0.00E+00					
	Phosphine	7803512	0.00E+00					
	Phosphoric Acid	7664382	0.00E+00					
	Phthalic Anhydride	85449	0.00E+00					
	Polychlorinated Biphenyls	1336363	0.00E+00					
	Potassium Bromate	7758012	0.00E+00					
	Propylene	115071	0.00E+00					
	Propylene Glycol Monomethyl Ether	107982	0.00E+00					
	Propylene oxide	75569	0.00E+00					
	Selenium	7782492	0.00E+00					
	Selenium sulfide	7446346	0.00E+00					
	Silica (crystalline, respirable)	7631869	0.00E+00					
	Sodium hydroxide	1310732	0.00E+00					
	Styrene	100425	0.00E+00					
	Sulfates	9960	0.00E+00					
	Sulfur Dioxide	7446095	0.00E+00					
	Sulfuric Acid	7664939	0.00E+00					
	Sulfur Trioxide	7446719	0.00E+00					

Tertiary-butyl acetate	540885	0.00E+00			
Tetrachloroethylene	127184	0.00E+00			
Thioacetamide	62555	0.00E+00			
Toluene	108883	0.00E+00			
Toluene Diisocyanates	26471625	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	584849	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	91087	0.00E+00			
Trichloroethylene	79016	0.00E+00			
Triethylamine	121448	0.00E+00			
Urethane	51796	0.00E+00			
Vanadium pentoxide	1314621	0.00E+00			
Vinyl acetate	108054	0.00E+00			
Vinyl chloride	75014	0.00E+00			
Xylenes (technical mixture of m, o, p-isomers)	1330207	0.00E+00			
Vanadium	7440622	0.00E+00			
	TOTAL UNADJUSTED Risk Values		**10.000**	**0.003**	**0.000**

Step 1: Enter Facility Data

Plant Name	2147 San Pablo
Plant No.	

Step 2: Estimate Distance

What is the distance (m) from the facility boundary to the MEI?	50

Step 3: Enter Emissions Data

Step 4: Specify Source Type

Does facility have only diesel backup generators?	yes
Is this analysis for a gas station?	no

Note: Default generic distance multiplier used if source is not a generator or gas station.

Step 5: Read Estimates

Total Cancer Risk	5.000	per 1,000,000
Total Chronic Hazard	0.001	
Total PM2.5 Concentration	0.000	µg/m³

Chemical Name	CAS No. (dashes removed)	Rate (lb/day)	Risk (# / 1,000,000)	Hazard (Index)	Concentration (µg/m3)
Fine Particulate Matter (PM2.5)					
1,1,1-Trichloroethane	71556	0.00E+00			
1,1,2,2-Tetrachloroethane	79345	0.00E+00			
1,1,2-Trichloroethane	79005	0.00E+00			
1,1-Dichloroethane	75343	0.00E+00			
1,1-Dichloroethylene	75354	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268879	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	0.00E+00			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	0.00E+00			
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	0.00E+00			
1,2,3,7,8-Pentachlorodibenzofuran	57117416	0.00E+00			
1,2-Dibromo-3-chloropropane	96128	0.00E+00			
1,2-Dibromoethane	106934	0.00E+00			
1,2-Dichloroethane	107062	0.00E+00			
1,2-Epoxybutane	106887	0.00E+00			
1,3-Butadiene	106990	0.00E+00			
1,3-Propane sultone	1120714	0.00E+00			
1,4-Dichlorobenzene	106467	0.00E+00			
1,4-Dioxane	123911	0.00E+00			
1,6-Dinitropyrene	42397648	0.00E+00			
1,8-Dinitropyrene	42397659	0.00E+00			
1-Nitropyrene	5522430	0.00E+00			
2',3,4,4',5-PeCB	65510443	0.00E+00			
2,3',4,4',5,5'-HxCB	52663726	0.00E+00			
2,3',4,4',5-PeCB	31508006	0.00E+00			
2,3,3',4,4',5'-HxCB	69782907	0.00E+00			
2,3,3',4,4',5,5'-HpCB	39635319	0.00E+00			
2,3,3',4,4',5-HxCB	38380084	0.00E+00			
2,3,3',4,4'-PeCB	32598144	0.00E+00			
2,3,4,4',5-PeCB	74472370	0.00E+00			
2,3,4,6,7,8-hexachlorodibenzofuran	60851345	0.00E+00			
2,3,4,7,8-Pentachlorodibenzofuran	57117314	0.00E+00			
2,3,7,8-Tetrachlorodibenzo-p-dioxin and related comp	1746016	0.00E+00			
2,3,7,8-Tetrachlorodibenzofuran	51207319	0.00E+00			
2,4,6-Trichlorophenol	88062	0.00E+00			
2,4-Diaminoanisole	615054	0.00E+00			
2,4-Diaminotoluene	95807	0.00E+00			
2,4-Dinitrotoluene	121142	0.00E+00			
2-Aminoanthraquinone	117793	0.00E+00			
2-Nitrofluorene	607578	0.00E+00			
3,3',4,4',5,5'-HxCB	32774166	0.00E+00			
3,3',4,4',5-PeCB	57465288	0.00E+00			
3,3',4,4'-TCB	32598133	0.00E+00			
3,3-Dichlorobenzidine	91941	0.00E+00			
3,4,4'5-TCB	70362504	0.00E+00			
3-Methylcholanthrene	56495	0.00E+00			
4,4-Methylene bis(2-chloroaniline)	101144	0.00E+00			
4,4-Methylenedianiline	101779	0.00E+00			
4-Chloro-ortho-phenylenediamine	95830	0.00E+00			
4-Dimethylaminoazobenzene	60117	0.00E+00			
4-Nitropyrene	57835924	0.00E+00			
5-Methylchrysene	3697243	0.00E+00			
5-Nitroacenaphthene	602879	0.00E+00			
6-Nitrochrysene	7496028	0.00E+00			
7,12-Dimethylbenz(a)anthracene	57976	0.00E+00			
7H-dibenzo(c,g)carbazole	194592	0.00E+00			
Acetaldehyde	75070	0.00E+00			
Acetamide	60355	0.00E+00			
Acrolein	107028	0.00E+00			
Acrylamide	79061	0.00E+00			
Acrylic Acid	79107	0.00E+00			
Acrylonitrile	107131	0.00E+00			
Allyl chloride	107051	0.00E+00			
Ammonia	7664417	0.00E+00			
Aniline	62533	0.00E+00			
Arsenic	7440382	0.00E+00			
Arsine	7784421	0.00E+00			
Asbestos [1/(100 PCM fibers/m^3)]^-1	1332214	0.00E+00			
Benz(a)anthracene	56553	0.00E+00			
Benzene	71432	0.00E+00			
Benzidine	92875	0.00E+00			
Benzo(a)pyrene	50328	0.00E+00			
Benzo(b)fluoranthene	205992	0.00E+00			
Benzo(j)fluoranthene	205823	0.00E+00			
Benzo(k)fluoranthene	207089	0.00E+00			
Benzyl Chloride	100447	0.00E+00			
Beryllium	7440417	0.00E+00			
Bis(2-chloroethyl) Ether	111444	0.00E+00			
Bis(2-chloromethyl) Ether	542881	0.00E+00			
Cadmium	7440439	0.00E+00			
Caprolactam	105602	0.00E+00			
Carbon Disulfide	75150	0.00E+00			
Carbon Monoxide	630080	0.00E+00			
Carbon Tetrachloride	56235	0.00E+00			
Carbonyl Sulfide	463581	0.00E+00			
Chlorinated paraffins (Avg. chain length C12; approx. 6	108171262	0.00E+00			
Chlorine	7782505	0.00E+00			
Chlorine Dioxide	10049044	0.00E+00			
Chlorite	7758192	0.00E+00			
Chlorobenzene	108907	0.00E+00			
Chlorodibromomethane	124481	0.00E+00			
Chloroethane (Ethyl Chloride)	75003	0.00E+00			
Chloroform	67663	0.00E+00			
Chloropicrin	76062	0.00E+00			
Chromic Trioxide	1333820	0.00E+00			
Chromium-hexavalent	18540299	0.00E+00			
Barium chromate2	10294403	0.00E+00			

	Calcium chromate2	13765190	0.00E+00					
	Lead chromate2	7758976	0.00E+00					
	Sodium dichromate2	10588019	0.00E+00					
	Strontium chromate2	7789062	0.00E+00					
	CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.00E+00					
	Chrysene	218019	0.00E+00					
	Copper	7440508	0.00E+00					
	Copper and Copper Compounds	7440508	0.00E+00					
	Cresol Mixtures	1319773	0.00E+00					
	Cupferron	135206	0.00E+00					
	Cyanide	57125	0.00E+00					
	Di(2-ethylhexyl)phthalate	117817	0.00E+00					
	Dibenz(a-h)acridine	226368	0.00E+00					
	Dibenz(a-h)anthracene	53703	0.00E+00					
	Dibenz(a-j)acridine	224420	0.00E+00					
	Dibenzo(a-e)pyrene	192654	0.00E+00					
	Dibenzo(a-h)pyrene	189640	0.00E+00					
	Dibenzo(a-i)pyrene	189559	0.00E+00					
	Dibenzo(a-l)pyrene	191300	0.00E+00					
	Diesel Exhaust Particulate	85105	7.11E-03	1.00E+01	2.69E-03			
	Diethanolamine	111422	0.00E+00					
	Dimethylformamide	68122	0.00E+00					
	Direct Black 38 (Technical Grade)	1937377	0.00E+00					
	Direct Blue 6 (Technical Grade)	2602462	0.00E+00					
	Direct Brown 95 (Technical Grade)	16071866	0.00E+00					
	Epichlorohydrin	106898	0.00E+00					
	Ethylbenzene	100414	0.00E+00					
	Ethylene Glycol	107211	0.00E+00					
	Ethylene Glycol Monobutyl Ether	111762	0.00E+00					
	Ethylene Glycol Monoethyl Ether	110805	0.00E+00					
	Ethylene Glycol Monoethyl Ether Acetate	111159	0.00E+00					
	Ethylene Glycol Monomethyl Ether	109864	0.00E+00					
	Ethylene Glycol Monomethyl Ether Acetate	110496	0.00E+00					
	Ethylene Oxide	75218	0.00E+00					
	Ethylene Thiourea	96457	0.00E+00					
	Fluorides	1101	0.00E+00					
	Formaldehyde (gas)	50000	0.00E+00					
	Glutaraldehyde	111308	0.00E+00					
	Hexachlorobenzene	118741	0.00E+00					
	Hexachlorocyclohexane (Technical Grade)	608731	0.00E+00					
	Hexachlorocyclohexane- Alpha Isomer	319846	0.00E+00					
	Hexachlorocyclohexane- Beta Isomer	319857	0.00E+00					
	Hexachlorocyclohexane- Gamma Isomer	58899	0.00E+00					
	Hydrazine	302012	0.00E+00					
	Hydrogen Chloride	7647010	0.00E+00					
	Hydrogen Cyanide	74908	0.00E+00					
	Hydrogen Fluoride	7664393	0.00E+00					
	Hydrogen Selenide	7783075	0.00E+00					
	Hydrogen Sulfide	7783064	0.00E+00					
	Indeno(1-2-3-c-d)pyrene	193395	0.00E+00					
	Isophorone	78591	0.00E+00					
	Isopropyl Alcohol	67630	0.00E+00					
	Lead Acetate	301042	0.00E+00					
	Lead and Lead Compounds	7439921	0.00E+00					
	Lead Phosphate	7446277	0.00E+00					
	Lead Subacetate	1335326	0.00E+00					
	m-CRESOL	108394	0.00E+00					
	m-XYLENE	108383	0.00E+00					
	Maleic Anhydride	108316	0.00E+00					
	Manganese & Manganese Compounds	7439965	0.00E+00					
	Mercury (Inorganic)	7439976	0.00E+00					
	Mercuric chloride	7487947	0.00E+00					
	Methanol	67561	0.00E+00					
	Methyl Bromide	74839	0.00E+00					
	Methyl Ethyl Ketone	78933	0.00E+00					
	Methyl Isocyanate	624839	0.00E+00					
	Methyl Tertiary Butyl Ether	1634044	0.00E+00					
	Methylene Chloride (Dichloromethane)	75092	0.00E+00					
	Methylene Diphenyl Isocyanate (MDI)	101688	0.00E+00					
	Michlers Ketone	90948	0.00E+00					
	n-Hexane	110543	0.00E+00					
	n-Nitroso-n-methylethylamine	10595956	0.00E+00					
	n-Nitrosodi-n-Butylamine	924163	0.00E+00					
	n-Nitrosodi-n-Propylamine	621647	0.00E+00					
	n-Nitrosodiethylamine	55185	0.00E+00					
	n-Nitrosodimethylamine	62759	0.00E+00					
	n-Nitrosodiphenylamine	86306	0.00E+00					
	n-Nitrosomorpholine	59892	0.00E+00					
	n-Nitrosopiperidine	100754	0.00E+00					
	n-Nitrosopyrrolidine	930552	0.00E+00					
	Naphthalene	91203	0.00E+00					
	Nickel and Nickel Compounds	7440020	0.00E+00					
	Nickel acetate	373024	0.00E+00					
	Nickel carbonate	3333673	0.00E+00					
	Nickel carbonyl	13463393	0.00E+00					
	Nickel hydroxide	12054487	0.00E+00					
	Nickelocene	1271289	0.00E+00					
	Nickel Oxide	1313991	0.00E+00					
	Nickel Refinery Dust	1146	0.00E+00					
	Nickel Subsulfide	12035722	0.00E+00					
	Nitric Acid	7697372	0.00E+00					
	Nitrogen Dioxide	10102440	0.00E+00					
	o-CRESOL	95487	0.00E+00					
	o-XYLENE	95476	0.00E+00					
	Oleum	8014957	0.00E+00					
	Ozone	10028156	0.00E+00					
	p-Chloro-o-toluidine	95692	0.00E+00					
	p-Cresidine	120718	0.00E+00					
	p-CRESOL	106445	0.00E+00					
	p-Nitrosodiphenylamine	156105	0.00E+00					
	p-XYLENE	106423	0.00E+00					
	Pentachlorophenol	87865	0.00E+00					
	Perchloroethylene	127184	0.00E+00					
	Phenol	108952	0.00E+00					
	Phosgene	75445	0.00E+00					
	Phosphine	7803512	0.00E+00					
	Phosphoric Acid	7664382	0.00E+00					
	Phthalic Anhydride	85449	0.00E+00					
	Polychlorinated Biphenyls	1336363	0.00E+00					
	Potassium Bromate	7758012	0.00E+00					
	Propylene	115071	0.00E+00					
	Propylene Glycol Monomethyl Ether	107982	0.00E+00					
	Propylene oxide	75569	0.00E+00					
	Selenium	7782492	0.00E+00					
	Selenium sulfide	7446346	0.00E+00					
	Silica (crystalline, respirable)	7631869	0.00E+00					
	Sodium hydroxide	1310732	0.00E+00					
	Styrene	100425	0.00E+00					
	Sulfates	9960	0.00E+00					
	Sulfur Dioxide	7446095	0.00E+00					
	Sulfuric Acid	7664939	0.00E+00					
	Sulfur Trioxide	7446719	0.00E+00					

Tertiary-butyl acetate	540885	0.00E+00			
Tetrachloroethylene	127184	0.00E+00			
Thioacetamide	62555	0.00E+00			
Toluene	108883	0.00E+00			
Toluene Diisocyanates	26471625	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	584849	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	91087	0.00E+00			
Trichloroethylene	79016	0.00E+00			
Triethylamine	121448	0.00E+00			
Urethane	51796	0.00E+00			
Vanadium pentoxide	1314621	0.00E+00			
Vinyl acetate	108054	0.00E+00			
Vinyl chloride	75014	0.00E+00			
Xylenes (technical mixture of m, o, p-isomers)	1330207	0.00E+00			
Vanadium	7440622	0.00E+00			
	TOTAL UNADJUSTED Risk Values		**10.000**	**0.003**	**0.000**

Step 1: Enter Facility Data

Plant Name	2198 San Pablo
Plant No.	

Step 4: Specify Source Type

Does facility have only diesel backup generators?	yes
Is this analysis for a gas station?	no

Note: Default generic distance multiplier used if source is not a generator or gas station.

Step 2: Estimate Distance

What is the distance (m) from the facility boundary to the MEI?	25

Step 5: Read Estimates

Total Cancer Risk	8.500	per 1,000,000
Total Chronic Hazard	0.002	
Total PM2.5 Concentration	0.000	µg/m³

Step 3: Enter Emissions Data

Chemical Name	CAS No. (dashes removed)	Rate (lb/day)	Risk (# / 1,000,000)	Hazard (Index)	Concentration (µg/m3)
Fine Particulate Matter (PM2.5)					
1,1,1-Trichloroethane	71556	0.00E+00			
1,1,2,2-Tetrachloroethane	79345	0.00E+00			
1,1,2-Trichloroethane	79005	0.00E+00			
1,1-Dichloroethane	75343	0.00E+00			
1,1-Dichloroethylene	75354	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268879	0.00E+00			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001020	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	0.00E+00			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	0.00E+00			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	0.00E+00			
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	0.00E+00			
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	0.00E+00			
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	0.00E+00			
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	0.00E+00			
1,2,3,7,8-Pentachlorodibenzofuran	57117416	0.00E+00			
1,2-Dibromo-3-chloropropane	96128	0.00E+00			
1,2-Dibromoethane	106934	0.00E+00			
1,2-Dichloroethane	107062	0.00E+00			
1,2-Epoxybutane	106887	0.00E+00			
1,3-Butadiene	106990	0.00E+00			
1,3-Propane sultone	1120714	0.00E+00			
1,4-Dichlorobenzene	106467	0.00E+00			
1,4-Dioxane	123911	0.00E+00			
1,6-Dinitropyrene	42397648	0.00E+00			
1,8-Dinitropyrene	42397659	0.00E+00			
1-Nitropyrene	5522430	0.00E+00			
2',3,4,4',5-PeCB	65510443	0.00E+00			
2,3',4,4',5,5'-HxCB	52663726	0.00E+00			
2,3',4,4',5-PeCB	31508006	0.00E+00			
2,3,3',4,4',5'-HxCB	69782907	0.00E+00			
2,3,3',4,4',5,5'-HpCB	39635319	0.00E+00			
2,3,3',4,4',5-HxCB	38380084	0.00E+00			
2,3,3',4,4'-PeCB	32598144	0.00E+00			
2,3,4,4',5-PeCB	74472370	0.00E+00			
2,3,4,6,7,8-hexachlorodibenzofuran	60851345	0.00E+00			
2,3,4,7,8-Pentachlorodibenzofuran	57117314	0.00E+00			
2,3,7,8-Tetrachlorodibenzo-p-dioxin and related compo	1746016	0.00E+00			
2,3,7,8-Tetrachlorodibenzofuran	51207319	0.00E+00			
2,4,6-Trichlorophenol	88062	0.00E+00			
2,4-Diaminoanisole	615054	0.00E+00			
2,4-Diaminotoluene	95807	0.00E+00			
2,4-Dinitrotoluene	121142	0.00E+00			
2-Aminoanthraquinone	117793	0.00E+00			
2-Nitrofluorene	607578	0.00E+00			
3,3',4,4',5,5'-HxCB	32774166	0.00E+00			
3,3',4,4',5-PeCB	57465288	0.00E+00			
3,3',4,4'-TCB	32598133	0.00E+00			
3,3-Dichlorobenzidine	91941	0.00E+00			
3,4,4'5-TCB	70362504	0.00E+00			
3-Methylcholanthrene	56495	0.00E+00			
4,4-Methylene bis(2-chloroaniline)	101144	0.00E+00			
4,4-Methylenedianiline	101779	0.00E+00			
4-Chloro-ortho-phenylenediamine	95830	0.00E+00			
4-Dimethylaminoazobenzene	60117	0.00E+00			
4-Nitropyrene	57835924	0.00E+00			
5-Methylchrysene	3697243	0.00E+00			
5-Nitroacenaphthene	602879	0.00E+00			
6-Nitrochrysene	7496028	0.00E+00			
7,12-Dimethylbenz(a)anthracene	57976	0.00E+00			
7H-dibenzo(c,g)carbazole	194592	0.00E+00			
Acetaldehyde	75070	0.00E+00			
Acetamide	60355	0.00E+00			
Acrolein	107028	0.00E+00			
Acrylamide	79061	0.00E+00			
Acrylic Acid	79107	0.00E+00			
Acrylonitrile	107131	0.00E+00			
Allyl chloride	107051	0.00E+00			
Ammonia	7664417	0.00E+00			
Aniline	62533	0.00E+00			
Arsenic	7440382	0.00E+00			
Arsine	7784421	0.00E+00			
Asbestos [1/(100 PCM fibers/m^3)]^-1	1332214	0.00E+00			
Benz(a)anthracene	56553	0.00E+00			
Benzene	71432	0.00E+00			
Benzidine	92875	0.00E+00			
Benzo(a)pyrene	50328	0.00E+00			
Benzo(b)fluoranthene	205992	0.00E+00			
Benzo(j)fluoranthene	205823	0.00E+00			
Benzo(k)fluoranthene	207089	0.00E+00			
Benzyl Chloride	100447	0.00E+00			
Beryllium	7440417	0.00E+00			
Bis(2-chloroethyl) Ether	111444	0.00E+00			
Bis(2-chloromethyl) Ether	542881	0.00E+00			
Cadmium	7440439	0.00E+00			
Caprolactam	105602	0.00E+00			
Carbon Disulfide	75150	0.00E+00			
Carbon Monoxide	630080	0.00E+00			
Carbon Tetrachloride	56235	0.00E+00			
Carbonyl Sulfide	463581	0.00E+00			
Chlorinated paraffins (Avg. chain length C12; approx. 6	108171262	0.00E+00			
Chlorine	7782505	0.00E+00			
Chlorine Dioxide	10049044	0.00E+00			
Chlorite	7758192	0.00E+00			
Chlorobenzene	108907	0.00E+00			
Chlorodibromomethane	124481	0.00E+00			
Chloroethane (Ethyl Chloride)	75003	0.00E+00			
Chloroform	67663	0.00E+00			
Chloropicrin	76062	0.00E+00			
Chromic Trioxide	1333820	0.00E+00			
Chromium-hexavalent	18540299	0.00E+00			
Barium chromate2	10294403	0.00E+00			

	Calcium chromate2	13765190	0.00E+00					
	Lead chromate2	7758976	0.00E+00					
	Sodium dichromate2	10588019	0.00E+00					
	Strontium chromate2	7789062	0.00E+00					
	CHROMIC TRIOXIDE (as chromic acid mist)	1333820	0.00E+00					
	Chrysene	218019	0.00E+00					
	Copper	7440508	0.00E+00					
	Copper and Copper Compounds	7440508	0.00E+00					
	Cresol Mixtures	1319773	0.00E+00					
	Cupferron	135206	0.00E+00					
	Cyanide	57125	0.00E+00					
	Di(2-ethylhexyl)phthalate	117817	0.00E+00					
	Dibenz(a-h)acridine	226368	0.00E+00					
	Dibenz(a-h)anthracene	53703	0.00E+00					
	Dibenz(a-j)acridine	224420	0.00E+00					
	Dibenzo(a-e)pyrene	192654	0.00E+00					
	Dibenzo(a-h)pyrene	189640	0.00E+00					
	Dibenzo(a-i)pyrene	189559	0.00E+00					
	Dibenzo(a-l)pyrene	191300	0.00E+00					
	Diesel Exhaust Particulate	85105	7.11E-03	1.00E+01	2.69E-03			
	Diethanolamine	111422	0.00E+00					
	Dimethylformamide	68122	0.00E+00					
	Direct Black 38 (Technical Grade)	1937377	0.00E+00					
	Direct Blue 6 (Technical Grade)	2602462	0.00E+00					
	Direct Brown 95 (Technical Grade)	16071866	0.00E+00					
	Epichlorohydrin	106898	0.00E+00					
	Ethylbenzene	100414	0.00E+00					
	Ethylene Glycol	107211	0.00E+00					
	Ethylene Glycol Monobutyl Ether	111762	0.00E+00					
	Ethylene Glycol Monoethyl Ether	110805	0.00E+00					
	Ethylene Glycol Monoethyl Ether Acetate	111159	0.00E+00					
	Ethylene Glycol Monomethyl Ether	109864	0.00E+00					
	Ethylene Glycol Monomethyl Ether Acetate	110496	0.00E+00					
	Ethylene Oxide	75218	0.00E+00					
	Ethylene Thiourea	96457	0.00E+00					
	Fluorides	1101	0.00E+00					
	Formaldehyde (gas)	50000	0.00E+00					
	Glutaraldehyde	111308	0.00E+00					
	Hexachlorobenzene	118741	0.00E+00					
	Hexachlorocyclohexane (Technical Grade)	608731	0.00E+00					
	Hexachlorocyclohexane- Alpha Isomer	319846	0.00E+00					
	Hexachlorocyclohexane- Beta Isomer	319857	0.00E+00					
	Hexachlorocyclohexane- Gamma Isomer	58899	0.00E+00					
	Hydrazine	302012	0.00E+00					
	Hydrogen Chloride	7647010	0.00E+00					
	Hydrogen Cyanide	74908	0.00E+00					
	Hydrogen Fluoride	7664393	0.00E+00					
	Hydrogen Selenide	7783075	0.00E+00					
	Hydrogen Sulfide	7783064	0.00E+00					
	Indeno(1-2-3-c-d)pyrene	193395	0.00E+00					
	Isophorone	78591	0.00E+00					
	Isopropyl Alcohol	67630	0.00E+00					
	Lead Acetate	301042	0.00E+00					
	Lead and Lead Compounds	7439921	0.00E+00					
	Lead Phosphate	7446277	0.00E+00					
	Lead Subacetate	1335326	0.00E+00					
	m-CRESOL	108394	0.00E+00					
	m-XYLENE	108383	0.00E+00					
	Maleic Anhydride	108316	0.00E+00					
	Manganese & Manganese Compounds	7439965	0.00E+00					
	Mercury (Inorganic)	7439976	0.00E+00					
	Mercuric chloride	7487947	0.00E+00					
	Methanol	67561	0.00E+00					
	Methyl Bromide	74839	0.00E+00					
	Methyl Ethyl Ketone	78933	0.00E+00					
	Methyl Isocyanate	624839	0.00E+00					
	Methyl Tertiary Butyl Ether	1634044	0.00E+00					
	Methylene Chloride (Dichloromethane)	75092	0.00E+00					
	Methylene Diphenyl Isocyanate (MDI)	101688	0.00E+00					
	Michlers Ketone	90948	0.00E+00					
	n-Hexane	110543	0.00E+00					
	n-Nitroso-n-methylethylamine	10595956	0.00E+00					
	n-Nitrosodi-n-Butylamine	924163	0.00E+00					
	n-Nitrosodi-n-Propylamine	621647	0.00E+00					
	n-Nitrosodiethylamine	55185	0.00E+00					
	n-Nitrosodimethylamine	62759	0.00E+00					
	n-Nitrosodiphenylamine	86306	0.00E+00					
	n-Nitrosomorpholine	59892	0.00E+00					
	n-Nitrosopiperidine	100754	0.00E+00					
	n-Nitrosopyrrolidine	930552	0.00E+00					
	Naphthalene	91203	0.00E+00					
	Nickel and Nickel Compounds	7440020	0.00E+00					
	Nickel acetate	373024	0.00E+00					
	Nickel carbonate	3333673	0.00E+00					
	Nickel carbonyl	13463393	0.00E+00					
	Nickel hydroxide	12054487	0.00E+00					
	Nickelocene	1271289	0.00E+00					
	Nickel Oxide	1313991	0.00E+00					
	Nickel Refinery Dust	1146	0.00E+00					
	Nickel Subsulfide	12035722	0.00E+00					
	Nitric Acid	7697372	0.00E+00					
	Nitrogen Dioxide	10102440	0.00E+00					
	o-CRESOL	95487	0.00E+00					
	o-XYLENE	95476	0.00E+00					
	Oleum	8014957	0.00E+00					
	Ozone	10028156	0.00E+00					
	p-Chloro-o-toluidine	95692	0.00E+00					
	p-Cresidine	120718	0.00E+00					
	p-CRESOL	106445	0.00E+00					
	p-Nitrosodiphenylamine	156105	0.00E+00					
	p-XYLENE	106423	0.00E+00					
	Pentachlorophenol	87865	0.00E+00					
	Perchloroethylene	127184	0.00E+00					
	Phenol	108952	0.00E+00					
	Phosgene	75445	0.00E+00					
	Phosphine	7803512	0.00E+00					
	Phosphoric Acid	7664382	0.00E+00					
	Phthalic Anhydride	85449	0.00E+00					
	Polychlorinated Biphenyls	1336363	0.00E+00					
	Potassium Bromate	7758012	0.00E+00					
	Propylene	115071	0.00E+00					
	Propylene Glycol Monomethyl Ether	107982	0.00E+00					
	Propylene oxide	75569	0.00E+00					
	Selenium	7782492	0.00E+00					
	Selenium sulfide	7446346	0.00E+00					
	Silica (crystalline, respirable)	7631869	0.00E+00					
	Sodium hydroxide	1310732	0.00E+00					
	Styrene	100425	0.00E+00					
	Sulfates	9960	0.00E+00					
	Sulfur Dioxide	7446095	0.00E+00					
	Sulfuric Acid	7664939	0.00E+00					
	Sulfur Trioxide	7446719	0.00E+00					

Tertiary-butyl acetate	540885	0.00E+00			
Tetrachloroethylene	127184	0.00E+00			
Thioacetamide	62555	0.00E+00			
Toluene	108883	0.00E+00			
Toluene Diisocyanates	26471625	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	584849	0.00E+00			
Toluene Diisocyanates (2,4 and 2, 6)	91087	0.00E+00			
Trichloroethylene	79016	0.00E+00			
Triethylamine	121448	0.00E+00			
Urethane	51796	0.00E+00			
Vanadium pentoxide	1314621	0.00E+00			
Vinyl acetate	108054	0.00E+00			
Vinyl chloride	75014	0.00E+00			
Xylenes (technical mixture of m, o, p-isomers)	1330207	0.00E+00			
Vanadium	7440622	0.00E+00			
	TOTAL UNADJUSTED Risk Values		**10.000**	**0.003**	**0.000**

APPENDIX B: CONSTRUCTION NOISE CALCULATIONS

Construction Noise Calculations

Construction Phase	Equipment[1]	No. Equipment[1]	Usage Factor[2]	Maximum Noise Level @ 50 feet (Lmax)[3]	Typical Noise Level @ 50 feet (dBA_1)	Reference Distance (D_1)	Distance to Receptor (D_2)	Ground Absorption Constant (G)	Noise Level at Receptor (dBA_2)	Two Noisiest Equipment
		Unit	%	dBA Lmax	dBA Leq	feet	feet	unitless	dBA Leq	dBA Leq
Demolition	Concrete/Industrial Saws	1	20	90	83	50	21	0.5	92	95
	Rubber Tired Dozers	1	40	85	81	50	21	0.5	90	
	Tractors/Loaders/Backhoes	3	40	80	76	50	21	0.5	85	
Site preparation	Graders	1	40	85	81	50	21	0.5	90	93
	Rubber Tired Dozers	1	40	85	81	50	21	0.5	90	
	Tractors/Loaders/Backhoes	1	40	80	76	50	21	0.5	85	
Grading	Graders	1	40	85	81	50	21	0.5	90	93
	Rubber Tired Dozers	1	40	85	81	50	21	0.5	90	
	Tractors/Loaders/Backhoes	2	40	80	76	50	21	0.5	85	
Building Construction	Cranes	1	16	88	80	50	21	0.5	89	92
	Forklifts	1	--	--	--	50	21	0.5	--	
	Generator Sets	1	50	82	79	50	21	0.5	88	
	Tractors/Loaders/Backhoes	1	40	80	76	50	21	0.5	85	
	Welders	3	40	--	--	50	21	0.5	--	
Paving	Cement and Mortar Mixers	1	20	76	69	50	21	0.5	78	94
	Pavers	1	50	85	82	50	21	0.5	91	
	Paving Equipment	1	50	85	82	50	21	0.5	91	
	Rollers	1	20	85	78	50	21	0.5	87	
	Tractors/Loaders/Backhoes	1	40	80	76	50	21	0.5	85	
Architectural Coating	Air Compressors	1	40	80	76	50	21	0.5	85	85

Notes:

-- = value not reported

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

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

Where:

dBA_2 = Noise level at receptor

dBA_1 = Noise level at reference distance

D_1 = Reference distance

D_2 = Receptor distance

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

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

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

L = Combined noise level

L_1 = Noise level for first noisiest piece of equipment

L_2 = Noise level for second noisiest piece of equipment

[1] The type and number of construction equipment based on the default equipment list from the California Emissions Estimator Model.

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

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

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

Construction Vibration Calculations for Potential Building Damage

Equipment	Typical Vibration Level @ 25 Feet[1] (PPV_1)	Building Damage Vibration Threshold (PPV_2)	Reference Distance (D_1)	Buffer Distance to Damage Threshold (D_2)
Unit	in/sec	in/sec	feet	feet
Vibratory Roller	0.210	0.2	25	26
Large bulldozer	0.089	0.2	25	15
Loaded trucks	0.076	0.2	25	13
Small bulldozer	0.003	0.2	25	2

Notes:

Buffer distance to vibration threshold for building damage calculated based on the following equation:[2]

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

Where:

PPV_1 = Vibration level at reference distance

PPV_2 = Vibration threshold for building damage

D_1 = Reference distance

D_2 = Buffer distance to vibration threshold for building damage

Construction Vibration Calculations for Potential Annoyance

Equipment	Typical Vibration Level @ 25 Feet[1] (RMS_1)	Annoyance Vibration Threshold (RMS_2)	Reference Distance (D_1)	Buffer Distance to Annoyance Threshold (D_2)
Unit	VdB	VdB	feet	feet
Vibratory Roller	94	80.0	25	73
Large bulldozer	87	80.0	25	43
Loaded trucks	86	80.0	25	40
Small bulldozer	58	80.0	25	5

Notes:

Buffer distance to vibration threshold for human annoyance calculated based on the following equation:[2]

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

Where:

RMS_1 = Vibration level at reference distance

RMS_2 = Vibration threshold for human annoyance

D_1 = Reference distance

D_2 = Buffer distance to vibration threshold for human annoyance

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

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

APPENDIX B

COMMENTS RECEIVED

California Department of Transportation

DISTRICT 4
OFFICE OF REGIONAL AND COMMUNITY PLANNING
P.O. BOX 23660, MS–10D | OAKLAND, CA 94623-0660
www.dot.ca.gov

September 16, 2022

SCH #: 2022080445
GTS #: 04-ALA-2022-00673
GTS ID: 27384
Co/Rt/Pm: ALA/123/2.998

Sharon Gong, Senior Planner
City of Berkeley
1947 Center Street, 2nd Floor
Berkeley, CA 94704

Re: 2136-2154 San Pablo Avenue Mixed-Use Project – Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR)

Dear Sharon Gong:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the 2136-2154 San Pablo Avenue Mixed-Use project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the August 2022 NOP.

Project Understanding
The proposed project would demolish the existing 9,000-square-foot one-story building and construct a new six-story mixed-use building with 123 dwelling units and three live/work units. The 0.53-acre project site is located directly adjacent to State Route (SR)-123, or San Pablo Ave.

Project Access
Left-turn traffic accessing the project site should be prevented to reduce queuing on North Bound (NB) San Pablo Ave. Project access should be limited to right turns from and onto San Pablo Ave.

Hydrology
The results of Mitigation Measure HYD-1 and potential impacts to Caltrans' drainage systems should be submitted for Caltrans' review upon encroachment permit submittal.

Construction-Related Impacts
Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, visit: https://dot.ca.gov/programs/traffic-operations/transportation-permits.

Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN).

Lead Agency
As the Lead Agency, the City of Berkeley is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Equitable Access
If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.

Encroachment Permit
Please be advised that any permanent work or temporary traffic control that encroaches onto Caltrans' Right-of-Way (ROW) requires a Caltrans-issued encroachment permit. An encroachment permit would also be required for proposed driveway connections to San Pablo Ave. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application package, digital set of plans clearly delineating Caltrans' ROW, digital copy of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement. Your application package may be emailed to D4Permits@dot.ca.gov.

Please note that Caltrans is in the process of implementing an online, automated, and milestone-based Caltrans Encroachment Permit System (CEPS) to replace the current permit application submittal process with a fully electronic system, including online payments. The new system is expected to be available during 2022. To obtain information about the most current encroachment permit process and to download the permit application, please visit https://dot.ca.gov/programs/traffic-operations/ep/applications.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, or for future notifications and requests for review of new projects, please email LDR-D4@dot.ca.gov.

Sincerely,

MARK LEONG
District Branch Chief
Local Development Review

c: State Clearinghouse

Department of Toxic Substances Control

Yana Garcia
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

September 15, 2022

Ms. Sharon Gong
The City of Berkeley
1947 Center Street, 2nd Floor
Berkeley, CA 94704
SGong@cityofberkeley.info

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE 2136-2154 SAN PABLO AVENUE MIXED-USE PROJECT, DATED AUGUST 17, 2022 (STATE CLEARINGHOUSE NUMBER: 2022080445)

Dear Ms. Gong:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of an Environmental Impact Report (EIR) for the 2136-2154 San Pablo Avenue Mixed-Use Project (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the EIR:

1. The Initial Study references activities that will be coordinated with the Berkeley Toxics Management Division (TMD) including a past Phase I and Limited Phase II Environmental Site Assessments (ESAs) for the subject property and potential future Phase I and Phase II ESAs. The Initial Study also indicates that a site-specific Soil and Groundwater Management Plan that identifies procedures for soil and groundwater management including identification of pollutants and disposal methods shall be submitted to TMD. A State of California environmental regulatory agency such as DTSC or Regional Water Quality Control Board (RWQCB), or a qualified local agency that meets the requirements of

Assembly Bill 304 (AB304) should provide regulatory concurrence that the site is safe for construction and the proposed use. DTSC is unaware of such oversight during previous Phase I and Limited Phase II ESA activities. A qualified agency should be contacted to provide oversight for forthcoming activities that include any forthcoming ESAs.

2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR.

3. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition, and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers*.

4. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material*.

5. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*.

DTSC appreciates the opportunity to comment on the EIR. Should you choose DTSC to provide oversight for any environmental investigations, please visit DTSC's Site

Mitigation and Restoration Program page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at DTSC's Brownfield website.

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,



Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

EAST BAY
MUNICIPAL UTILITY DISTRICT

September 7, 2022

Sharon Gong, Senior Planner
Planning and Development Department
1947 Center Street, 2nd Floor
Berkeley, CA 94704

Re: Notice of Preparation of an Environmental Impact Report for the 2136-2154 San Pablo Avenue Mixed-Use Project, Berkeley

Dear Ms. Gong:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the 2136-2154 San Pablo Avenue Mixed-Use Project located in the City of Berkeley (City). EBMUD has the following comments.

WATER SERVICE

Effective January 1, 2018, water service for new multiunit structures shall be individually metered or sub-metered in compliance with Section 537 of California's Water Code & Section 1954.201-219 of California's Civil Code, which encourages conservation of water in multifamily residential and mixed-use multi-family and commercial buildings by requiring metering infrastructure for each dwelling unit, including appropriate water billing safeguards for both tenants and landlords. EBMUD water services shall be conditioned for all development projects that are subject to these metering requirements and will be released only after the project sponsor has satisfied all requirements and provided evidence of conformance with Section 537 of California's Water Code & Section 1954.201-2019 of California's Civil Code.

EBMUD's Central Pressure Zone, with a service elevation between 0 and 100 feet, will serve the proposed development. Off-site pipeline improvements, at the project sponsor's expense, may be required to meet domestic and fire flow requirements set by the local fire agency. Off-site pipeline improvements include, but are not limited to, replacement of existing water mains to the project site. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the project. Engineering and installation of water services and off-site pipeline improvements require substantial lead time, which should be provided for in the project sponsor's development schedule.

Recycled Paper

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to accommodate the proposed wastewater flows from this project and to treat such flows provided that the wastewater generated by the project meets the requirements of the EBMUD Wastewater Control Ordinance. However, wet weather flows are a concern. The East Bay regional wastewater collection system experiences exceptionally high peak flows during storms due to excessive infiltration and inflow (I/I) that enters the system through cracks and misconnections in both public and private sewer lines. EBMUD has historically operated three Wet Weather Facilities (WWFs) to provide primary treatment and disinfection for peak wet weather flows that exceed the treatment capacity of the MWWTP. Due to reinterpretation of applicable law, EBMUD's National Pollutant Discharge Elimination System (NPDES) permit now prohibits discharges from EBMUD's WWFs. Additionally, the seven wastewater collection system agencies that discharge to the EBMUD wastewater interceptor system ("Satellite Agencies") hold NPDES permits that prohibit them from causing or contributing to WWF discharges. These NPDES permits have removed the regulatory coverage the East Bay wastewater agencies once relied upon to manage peak wet weather flows.

A federal consent decree, negotiated among EBMUD, the Satellite Agencies, the Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Board (RWQCB), requires EBMUD and the Satellite Agencies to eliminate WWF discharges by 2036. To meet this requirement, actions will need to be taken over time to reduce I/I in the system. The consent decree requires EBMUD to continue implementation of its Regional Private Sewer Lateral Ordinance (www.eastbaypsl.com), construct various improvements to its interceptor system, and identify key areas of inflow and rapid infiltration over a 22-year period. Over the same time period, the consent decree requires the Satellite Agencies to perform I/I reduction work including sewer main rehabilitation and elimination of inflow sources. EBMUD and the Satellite Agencies must jointly demonstrate at specified intervals that this work has resulted in a sufficient, pre-determined level of reduction in WWF discharges. If sufficient I/I reductions are not achieved, additional investment into the region's wastewater infrastructure would be required, which may result in significant financial implications for East Bay residents.

To ensure that the project contributes to these legally required I/I reductions, the lead agency should require the project applicant to comply with EBMUD's Regional Private Sewer Lateral Ordinance. Additionally, it would be prudent for the lead agency to require the following mitigation measures for the proposed project: (1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines to ensure that such systems and lines are free from defects or, alternatively, disconnected from the sanitary sewer system, and (2) ensure any new wastewater collection systems, including sewer lateral lines, for the project are constructed to prevent I/I to the maximum extent feasible

while meeting all requirements contained in the Regional Private Sewer Lateral Ordinance and applicable municipal codes or Satellite Agency ordinances.

WATER CONSERVATION

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

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:MSW:djr
sb22_189 2136-2154 San Pablo Avenue Mixed-Use Project NOP Response.docx

cc: San Pablo Investors Two, LLC
200 Spectrum Center Drive, Suite 1450
Irvine, CA 92618

This response to the Draft Environmental Impact Report (DEIR) for 2136 – 2154 San Pablo Avenue is to alert the developer, City of Berkeley staff and preparers of the DEIR of missed opportunities and impacts and errors that can be easily mitigated through design changes that would not even require a change in the massing or footprint of the building, but would over the life of the project reduce energy consumption and significantly reduce the impact on the environment and species.

The DEIR states on page 35 under Biological Resources:

> "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? Less than Significant. The project site is entirely developed and is not located within a migratory wildlife movement corridor.14 The species that use the project site are likely "generalists" that are adept at moving through urban landscapes. Trees generally have the potential to support nests of common native bird species. All native birds and their nests, regardless of their regulatory status, are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code."

Unfortunately, the DEIR preparer missed that Berkeley is in the Pacific Flyway and any number of maps found online include the Bay Area with marshes, Berkeley's Aquatic Park.

In the United States alone over 1 billion birds are killed each year by collisions with windows/glass. https://abcbirds.org/glass-collisions/ Forty-four percent of bird glass collisions are into one and two story houses and buildings. Fifty-six percent of bird collisions with glass are with buildings three to eleven stories. The 100 100 100 rule is bird safe glass to 100% of all buildings on all sides from the ground to the eleventh floor. This building is under eleven floors so the mitigation would be to all glass all floors, all sides.

The project can easily mitigate harm to migrating and local birds by following the 100 100 100 rule from the American Bird Conservancy by using bird safe glass throughout the entire project.

The American Bird Conservancy lists multiple resources for bird safe glass as well as informing the reader of bird safe glass properties. https://abcbirds.org/glass-collisions/nyc-threat-factor

Under Energy the DEIR falls to note that the dark colors selected for the building exterior will absorb greater heat than light heat reflective finishes and not only increase energy consumption by the building, but also increase urban heat island effect.

Here in Berkeley the climate is often referred to as mild, like the Mediterranean, however, California just experienced an extreme heat event that was on the edge of bringing down the grid on September 6, 2022. This warning was sent on September 6, 2022 at 5:48 pm

> "Emergency Alert CalOES, Conserve energy now to protect public health and safety. Extreme heat is straining the energy grid. Power interruptions may occur unless you

take immediate action. Turn off or reduce nonessential power if health allows, now until 9 pm."

Enough residents receiving that warning immediately cut electricity use and the power demand plunged by 1.2 gigawatts between 5:50 and 5:55 pm.

The 2019 updated Berkeley Local Hazard Mitigation Report adopted by Berkeley City Council in December 2019 on B-141 (pdf page 168) gives this warning:

> "Extreme heat events will increase in the Bay Area due to climate change in intensity, length, and frequency. By the end of the century, Bay Area residents may average six heat waves annually, which will average a length of ten days. Extreme heat threatens critical infrastructure, air quality, and public health. The urban heat island effect, where built surfaces absorb and retain heat causing higher nighttime temperatures, can exacerbate those health risks."

https://berkeleyca.gov/sites/default/files/2022-01/Local-Hazard-Mitigation-Plan-2019.pdf

As background, the Federal Mitigation Act of 2000 signed into law by President Clinton requires state and local governments to prepare the Local Hazard Mitigation Plan, a comprehensive risk reduction analysis, and to update the plan every five years.

The Local Hazard Mitigation Plan on pages B-153, B-154 (pdf page count 180, 181)

> Extreme heat events can be further exacerbated by the urban heat island (UHI) effect, through which densely-built cities like Berkeley experience higher temperatures in comparison to surrounding more rural areas. Factors contributing to the UHI effect include:
>
> - A relative lack of vegetation;
> - Reduced air flow;
> - **An abundance of hard, dark surfaces—such as buildings**,[emphasis added] streets, cars and sidewalks— which absorb heat rather than reflect it. These surfaces also slowly release that absorbed heat throughout the night, contributing to warmer nighttime temperatures as well.
>
> The UHI effect can also worsen air quality (particularly ground-level ozone) in urban environments. The UHI effect increases heat-related illnesses and fatalities, particularly after two to three days of extreme heat.

https://berkeleyca.gov/sites/default/files/2022-01/Local-Hazard-Mitigation-Plan-2019.pdf

There are multiple resources for reducing Urban Heat Island effect. Berkeley Lab lists many published studies https://heatisland.lbl.gov/publications

In 2019 the same year the Local Hazard Mitigation Plan was presented and then adopted, Berkeley Lab published "Can't Take the Heat? 'Cool Walls' Can Reduce Energy Costs, Pollution" on July 9 by Glenn Roberts Jr. https://newscenter.lbl.gov/2019/07/09/cool-walls-can-reduce-energy-costs-pollution/

Changing the palate of the project to lighter colors is shown to reduce energy and heat island impact. In terms of construction cost to the project, lighter surfaces that reflect rather than absorb heat is an easy fix.

It is a tragedy that this project will be removing Sycamore Trees with their large canopy and shading protection. Adding new small trees that will take years to mature and never provide the shading capacity of large canopy trees is a major loss and a contributor to urban heat island effect. Every effort needs to be made to preserve existing mature trees. Increasing permeable paving throughout the project wherever possible and especially around trees, recharges ground water and improves tree survival.

Under Utilities and Service Systems the impact on water supply is listed as less than significant. That may be the analysis at this writing, however, for the future there is no reason to remain confident. Brian K. Sullivan's article from August 25, 2022, "The World's Rivers, Canals and Reservoirs Are Turning to Dust" should give everyone pause.
https://www.bloomberg.com/news/features/2022-08-26/why-are-rivers-drying-up-climate-change-turns-waterways-into-dust?srnd=premium&sref=McB70VY0

Facing a future of a warming planet, a warming climate with unpredictable potentially climate extreme heat and weather events, it seems incomprehensible that all those involved in the DEIR, City staff and the project developer would do anything other than enthusiastically embrace changing the building palate and bird safe glass and all other actions that reduce urban heat island effect, impacts to the environment and wildlife. These actions improve the quality of life for those who might find living at 2136 San Pablo in their future and the surrounding residents.

Kelly Hammargren
Berkeley Resident

Gong, Sharon

From: Gong, Sharon
Sent: Friday, September 23, 2022 10:48 AM
To: Gong, Sharon
Subject: FW: Project Title: 2136-2154 San Pablo Avenue Mixed-Use Project

Internal

From: Adam Whyte <adamcwhyte@gmail.com>
Sent: Sunday, September 18, 2022 10:24 PM
To: Gong, Sharon <SGong@cityofberkeley.info>; Maureen Clearfield <maurclear@gmail.com>
Subject: Re: Project Title: 2136-2154 San Pablo Avenue Mixed-Use Project

Thanks for your reply.
Re: the proposal for 2136-2154 San Pablo Avenue Mixed-Use Project

Ok so my first point of concern which I did express on the call is the status with the already approved 2198 San Pablo Ave Project (which is also mixed-use). So the architects who proposed and got 2198 approved are the same ones that are behind 2136-2154 San Pablo Ave Project. 2198 was approved over three years ago but has not started construction yet. I understand that COVID probably prevented investments to allow the project to happen but now I am concerned that this new project is being proposed and when it gets the green light then does it mean that both projects will be built at the same time? This seems like too much to have going on at the same time. Can there be more transparency regarding what the plan is for when these things will be constructed? Is the fact that 2198 is still on hold due to maybe waiting to get 2136-2154 approved and then both can be pushed to be built at the same time?

Something that was talked about and I believe was approved for 2198 was the use of air monitors for the nearby surrounding homes during the construction. If the monitors indicated elevated levels of hazardous air then efforts would be made to help these homes to be protected from such exposures.

Construction would have to happen at reasonable hours but if needed to happen earlier or go later, then we would be warned about his I am hoping.

Another thing that we have asked for when 2198 was being proposed was the possibility of the neighboring streets to the west of San Pablo (10th St) to be granted two hour limit parking zones to prevent cars from being left on the surrounding streets (for no longer then two hours between 8am and 6pm Monday thru Friday) once the projects are built. I believe we were told that this area is not zoned for this but I ask that this still be looked at as a way to prevent long term parking on the surrounding streets once these projects are built.

In terms of cars coming out of 2136-2154, they will be forced to turn right and if they are trying to get back towards University then they will most likely take the first right on Alliston Way and then a right on 10th St which will increase the traffic by our homes, the park on 10th St. Might there be a way to add a left red turn arrow for the light on San Pablo and Alliston with a sign that allows for a u-turn to allow those cars coming out of 2136-2154 to head back towards University on San Pablo as opposed to driving through our residential area?

I get the sense the board has been given a mandate of finding places to build 9000 new units of housing in Berkeley. What about the recently passed A.B. 2011? Does that not open up the prospect of new areas to build affordable housing in commercial and parking zones?

The recently built memory care unit on the corner of Addison St and San Pablo has a loud vent on the back of the building which we now hear and are hoping can be made less noticeable in the future. So we have concerns about what kinds of ongoing noises will be coming from the proposed new development.

I recall hearing questions about the color of the project and being somewhat concerned about another dark, gray building. Might I suggest asking that the builders use newly developed white paint that is very effective at lowering the temperature of the structure that it is painted with this white paint. Here is a link to the information on this new paint that was developed by researchers at Purdue University.
https://www.purdue.edu/newsroom/releases/2021/Q2/the-whitest-paint-is-here-and-its-the-coolest.-literally..html

Thanks for you time and consideration

Adam Whyte
2125 10th St unit b
Berkeley, CA

September 15, 2022

To: Planning Staff and Zoning Approval Board

From: Miranda Maupin, neighboring resident

Re: Comments on the EIR for 2136 San Pablo Development

Relevant Link: Chapter 2 of the San Pablo Avenue Specific Plan, adopted by El Cerrito December 2012

I write to share comments regarding the 2136 San Pablo Development. In general, I support increasing the density our neighborhoods with pedestrian friendly mix-used development. However, my neighbors and I have some concerns with this development that we would like to see the design team and the city address.

On page 7, I also include a discussion of the cumulative impacts of the disproportionate housing development in West Berkeley, occurring without development guidelines or a current neighborhood plan. Although SB330 permits waivers to the current zoning restrictions (which restrict building height to 4-story), accepting the proposed waivers to building height, number of stories and FAR fully without mitigations will cause undo impact on public health and safety and the physical environment. The cumulative impacts of multiple developments on this block of San Pablo will impact the neighborhood character, pedestrian scale, tree canopy, traffic, noise and sunlight. See table summarizing total development on just this single block of San Pablo. See summary table at the end of this document that outlines development on the 2100 block of San Pablo.

Thank you for your consideration of these concerns and recommendations!!

A. 2136 San Pablo Development

- **Massing/Building Design:** The application proposes a 6-story building, which is two full stories above the current approved height for the zoning.
  - There are currently very few 6-story buildings in Berkeley outside of downtown. The very dense development near University and 4th Street is all 5-story. All buildings along San Pablo from El Cerrito to Emeryville are 5 stories or less. Even buildings along University are less than 5-story except for the downtown area.
  - The successful adjacent commercial area and surrounding residential is primarily one story and in some cases 2-story, making a 6-story development very out of scale with the pedestrian-oriented neighborhood.
  - There are two new developments on either side of the proposed development. The development at 2198 San Pablo is approved for 6-story. This development had very minimal public process. The completed development at 2100 San Pablo is 4-story. This development had

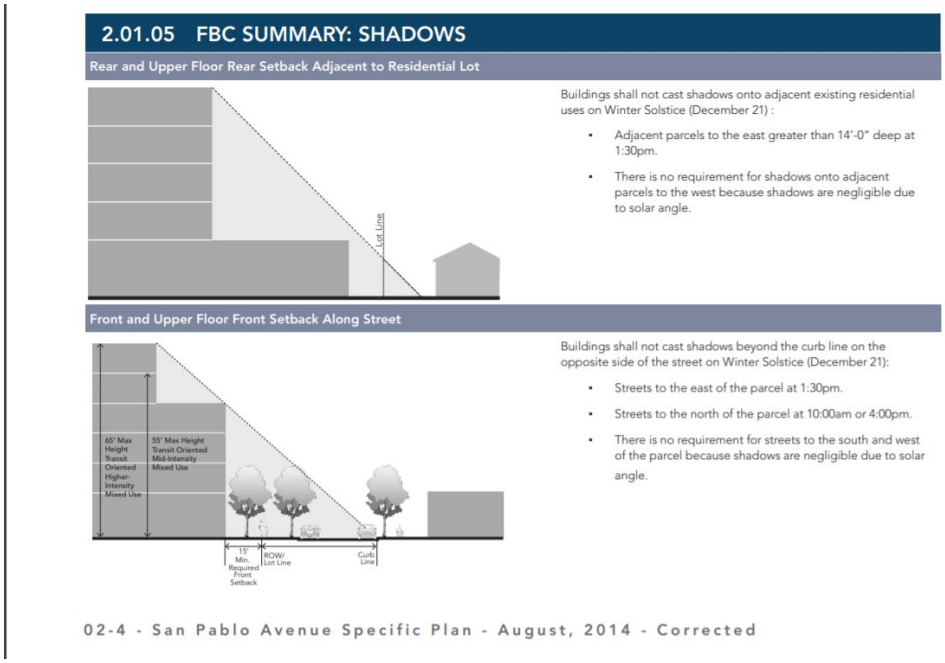
extensive very positive public engagement with the surrounding neighborhood.

- Please consider requiring a step back from the street and/or corners of any stories over 5, to protect the pedestrian scale street scape, and also step down from the 6-story development to the adjacent newly developed 4-story building. This will blend more architecturally with the very successful 1-story neighborhood grocery store, Mi Tierra and German restaurant, Guamankitzel at Addison and San Pablo. See guidelines below from the San Pablo Avenue Specific Plan.

Example of stepping down along the street edge to blend building heights.



Example of stepping back from the street edge to mitigate shading and preserve the pedetstrian scale along the street.



- **Harmony with the Surroundings/Neighborhood Context.** The applicant proposes to demolish the current historic commercial building built in the 1920s that was designated as a landmark in October 2020. The Berkeley Landmark Commission determined that the building has historical architectural significance per California Register criterion 3 as its architecture embodies distinctive characteristics of its type and period.
    - The very successful commercial area on the two blocks just North of the development from Addison to University consists of turn of the century 1-2 story buildings. Successful businesses along these two blocks include La Marcha Tapas Bar, Rainbow Donuts, Highwire Coffee, Luca Cucina Italian, Guamenkitzel, Mi Tierra, Middle Eastern Market, and Mi Ranchito Bayside Market. A new coffee and bakery just opened soon in the 1920's brick building formerly housing the famous Cheese Shop. This business district is successful in part due to the wonderful pedestrian scale street scape with the beautiful plane trees and charming 1920's commercial store fronts.
    - Please consider replicating the 1920's facade in the new development with cornices and multi-paned windows to continue the historic commercial corridor up to University.

      Photo of current building designated as a historic structure by the Berkeley Landmark Commission



Images of the one-story 1920's neighborhood commercial district showing awnings, landscaping along the buildings, cultural heritage murals and historic lighting features.

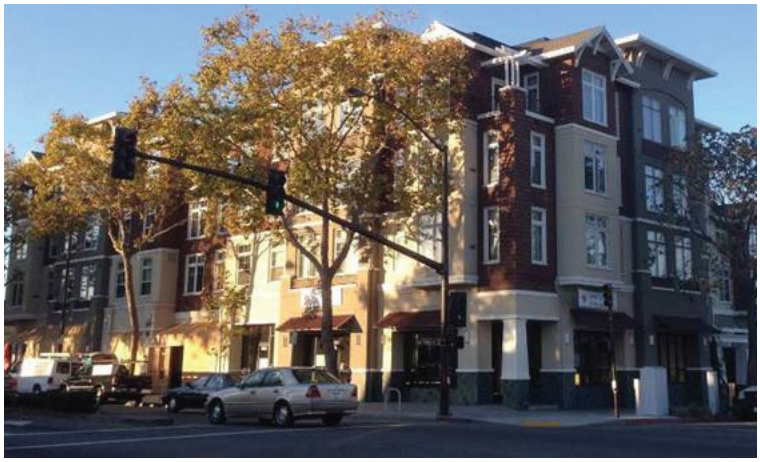






- **Articulation: The proposed development drawings depict a monotonous bulk without articulation.**
    - Please consider requiring articulation similar to the University Ave and 4th street residential buildings that include bays, porches and differentiated building materials. Also consider integrating architectural elements depicted in the previous set of images from the surrounding neighborhood commercial corridor such as historic pedestrian scale lighting, awnings, murals on exposed building sides and landscape planters along the building.

Example of a building utilizing materials, bump-outs, awnings, setbacks and different roof structures to create more articulation in a large building mass and mitigate the height with pedestrian scale design features.



- **Landscape / Open Space:** Please consider streetscape amenities such as plantings along the building and room for outdoor sitting to continue the vibrant commercial ambiance outside Gaumenkitzel and Highwire coffee as show in the drawing below.

Example from the San Pablo Avenue Specific Plan Guidelines showing sidewalk amenities to create vibrancy along the streetscape.



- **Parking garage entrance:** The propose the parking garage entrance will be adjacent to the new 2100 San Pablo garage entrance across from Cowper Street.

    - This will result in 2 parking garages adjacent to each other creating a large pedestrian dead zone, and potential safety concerns for pedestrians.
    - These entrances are both located at an uncontrolled intersection at San Pablo and Cowper Street, potentially creating unsafe conditions for pedestrians and autos trying to pull in and out near this uncontrolled intersection on an already very congested arterial.
    - Please consider moving the garage to the southern end of the building on San Pablo away from the Cowper intersection to prevent a long dead zone along the sidewalk and the safety concerns around the intersection.
    - Also please consider minimizing the size of the garage entrance and requiring a light, artful garage gate that can enliven the pedestrian streetscape.

- **Traffic:** Traffic immensely impacts the street scape and commercial viability, as well as the urban design of the neighborhood. This area of San Pablo is very congested during rush area, causing dangerous, high-speed cut-through traffic on Addison, Cowper and Allston. The development estimates 600 average daily car trips for the 127 apartments.
    - This is a big impact, worthy of CEQA consideration, especially when considered along with the traffic generated from adjacent developments and the existing traffic issues resulting in dangerous cut-through traffic in adjacent neighborhoods.
    - Please consider mitigation measures such as adding stop signs to the Cowper Street intersection and restricting traffic on Cowper to just one way at San Pablo, allowing Cowper traffic to turn onto San Pablo, but not San Pablo to turn onto Cowper.

- **Street Trees**. The development proposes to replace the 3 large plane trees along the street with new baby trees.
    - The mature plane trees along San Pablo are a very special aesthetic, historic and ecological feature of the neighborhood.
    - The mature trees will also help mitigate the extreme height differential of a 6-story building among 1-2 story buildings along the commercial corridor. It will take many years for the young trees to reach the mature height of the canopy along San Pablo.

- One of the trees seems in poor shape, but please consider maintaining the 2 existing healthy trees to mitigate the height of the building. Please also require the replacement tree to be of sufficient size, for example 20-feet, again to mitigate the extreme change in height along this corridor.

B. Cumulative and Disproportionate Impacts of Development in West Berkeley without Design Guidelines or Current/Relevant Neighborhood Plan

Finally, recent state develop laws are having an enormous cumulative and disproportionate impact along San Pablo – transforming a predominately 1-2 story commercial district with adjacent single-family housing to a 6-story mixed use corridor. West Berkeley is bearing the brunt of the housing mandate due to lower property values and, frankly, less consideration for historically lower income (formerly red-lined) areas of the city with less capacity to engage and political influence. Despite most the development occurring in West Berkeley, the city has no development guidelines for this area of the city, as they do in downtown and currently under development for the BART stations. The only document is the 20-year-old West Berkeley plan, which truthfully was focused on promoting compatibility of light-industrial and residential and in no way anticipated 6-story development along San Pablo.

The city must develop and adopt development guidelines for San Pablo that consider these factors at both an individual development as well as cumulative design as the street redevelops over time. These could be similar to design guidelines adopted by both adjacent municipalities, such as the attached San Pablo Avenue Specific Plan. Similar guidelines have been developed for downtown and the North Berkeley BART station; West Berkeley deserves similar consideration given the density that is anticipated for San Pablo due to SB330.

The city needs to consider how to properly invest the tax revenue generated by this disproportionate housing development in West Berkeley to increase services and mitigate impacts specifically in West Berkeley. The housing plan element needs to ensure that this additional revenue is invested in the places where it is generated, and where the development is generating additional population and impacts.

Summary of Development on 2100 Block of San Pablo

Name	Address	Units	Stories	Height	Parking spaces	% parking/units	Garage Entrance	Zoning Board	Design Review	Construction
U-Haul/Spirit Living	2100 San Pablo	96	4 story	50'	26	27%	San Pablo	Approved	Approved	Complete
Helena Liquor	2198 San Pablo	59	6 story	68'	20	34%	Allston	Approved	Approved	
Sink Factory	2136 San Pablo	123	6 story	70'	50	41%	San Pablo	9/9/2022	pre-review	
Beyond Repair	2147 San Pablo	128	6 story	70'	15	12%	Cowper	no application		
Total		**406**			**111**	**27%**				

The table below summarizes comments/requests received in response to the Notice of Preparation (NOP) released on August 17, 2022. If the comment/request has been addressed in the Initial Study (IS) or EIR, the applicable chapter title and number is listed in the column titled 'Where Addressed'.

Comment/Request	Commentor	Where Addressed
Comments from Public Agencies		
PROJECT ACCESS: Left-turn traffic accessing the project site should be prevented to reduce queuing on North Bound (NB) San Pablo Ave. Project access should be limited to right turns from and onto San Pablo Ave.	Caltrans	IS Chapter XVII. Transportation.
HYDROLOGY: The results of Mitigation Measure HYD-1 and potential impacts to Caltrans' drainage systems should be submitted for Caltrans' review upon encroachment permit submittal.	Caltrans	IS Chapter X. Hydrology and Water Quality.
CONSTRUCTION-RELATED IMPACTS: Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, visit: https://dot.ca.gov/programs/traffic-operations/transportation-permits. Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN).	Caltrans	City's Standard COAs.
LEAD AGENCY: As the Lead Agency, the City of Berkeley is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.	Caltrans	EIR Chapter II. Summary.
EQUITABLE ACCESS: If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As	Caltrans	N/A to CEQA. City may consider as part of Use Permit/Design Review.

Comment/Request	Commentor	Where Addressed
well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.		
ENCROACHMENT PERMIT: Please be advised that any permanent work or temporary traffic control that encroaches onto Caltrans' Right-of-Way (ROW) requires a Caltrans-issued encroachment permit. An encroachment permit would also be required for proposed driveway connections to San Pablo Ave. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application package, digital set of plans clearly delineating Caltrans' ROW, digital copy of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement. Your application package may be emailed to D4Permits@dot.ca.gov. Please note that Caltrans is in the process of implementing an online, automated, and milestone-based Caltrans Encroachment Permit System (CEPS) to replace the current permit application submittal process with a fully electronic system, including online payments. The new system is expected to be available during 2022. To obtain information about the most current encroachment permit process and to download the permit	Caltrans	IS Chapter I. Project Description and EIR Chapter III. Project Description.

Comment/Request	Commentor	Where Addressed
application, please visit https://dot.ca.gov/programs/traffic-operations/ep/applications.		
PHASE I AND II: The Initial Study references activities that will be coordinated with the Berkeley Toxics Management Division (TMD) including a past Phase I and Limited Phase II Environmental Site Assessments (ESAs) for the subject property and potential future Phase I and Phase II ESAs. The Initial Study also indicates that a site-specific Soil and Groundwater Management Plan that identifies procedures for soil and groundwater management including identification of pollutants and disposal methods shall be submitted to TMD. A State of California environmental regulatory agency such as DTSC or Regional Water Quality Control Board (RWQCB), or a qualified local agency that meets the requirements of Assembly Bill 304 (AB304) should provide regulatory concurrence that the site is safe for construction and the proposed use. DTSC is unaware of such oversight during previous Phase I and Limited Phase II ESA activities. A qualified agency should be contacted to provide oversight for forthcoming activities that include any forthcoming ESAs.	Department of Toxic Substances Control	IS Chapter IX. Hazards.
SOIL SAMPLES: Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road	Department of Toxic Substances Control	IS Chapter IX. Hazards.

Comment/Request	Commentor	Where Addressed
surfaces due to past construction activities. Due to the potential for ADL contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR.		
SURVEYS FOR POTENTIAL CONTAMINATION: If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition, and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers.	Department of Toxic Substances Control	IS Chapter IX. Hazards.
SOIL SAMPLES: If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to DTSC's 2001 Information Advisory Clean Imported Fill Material.	Department of Toxic Substances Control	IS Chapter IX. Hazards.
AGRICULTURAL PROPERTY SAMPLES: If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with	Department of Toxic Substances Control	IS Chapter II. Agricultural and Forest Resources.

Comment/Request	Commentor	Where Addressed
DTSC's 2008 Interim Guidance for Sampling Agricultural Properties (Third Revision).		
WATER SERVICE: Effective January 1, 2018, water service for new multiunit structures shall be individually metered or sub-metered in compliance with Section 537 of California's Water Code & Section 1954.201-219 of California's Civil Code, which encourages conservation of water in multifamily residential and mixed-use multi-family and commercial buildings by requiring metering infrastructure for each dwelling unit, including appropriate water billing safeguards for both tenants and landlords. EBMUD water services shall be conditioned for all development projects that are subject to these metering requirements and will be released only after the project sponsor has satisfied all requirements and provided evidence of conformance with Section 537 of California's Water Code & Section 1954.201-209 of California's Civil Code. EBMUD's Central Pressure Zone, with a service elevation between 0 and 100 feet, will serve the proposed development. Off-site pipeline improvements, at the project sponsor's expense, may be required to meet domestic and fire flow requirements set by the local fire agency. Off-site pipeline improvements include, but are not limited to, replacement of existing water mains to the project site. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the project. Engineering and installation of water services and off-site pipeline improvements require substantial lead time, which	East Bay Municipal Utility District	IS Chapter XIX. Utilities and Service Systems.

Comment/Request	Commentor	Where Addressed
should be provided for in the project sponsor's development schedule.		
WASTEWATER SERVICE: EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor systems are anticipated to have adequate dry weather capacity to accommodate the proposed wastewater flows from this project and to treat such flows provided that the wastewater generated by the project meets the requirements of the EBMUD Wastewater Control Ordinance. However, wet weather flows are a concern. The East Bay regional wastewater collection system experiences exceptionally high peak flows during storms due to excessive infiltration and inflow (I/I) that enters the system through cracks and misconnections in both public and private sewer lines. EBMUD has historically operated three Wet Weather Facilities (WWFs) to provide primary treatment and disinfection for peak wet weather flows that exceed the treatment capacity of the MWWTP. Due to reinterpretation of applicable law, EBMUD's National Pollutant Discharge Elimination System (NPDES) permit now prohibits discharges from EBMUD's WWFs. Additionally, the seven wastewater collection system agencies that discharge to the EBMUD wastewater interceptor system ("Satellite Agencies") hold NPDES permits that prohibit them from causing or contributing to WWF discharges. These NPDES permits have removed the regulatory coverage the East Bay wastewater agencies once relied upon to manage peak wet weather flows. A federal consent decree, negotiated among EBMUD, the Satellite Agencies, the Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB),	East Bay Municipal Utility District	IS Chapter XIX. Utilities and Service Systems.

Comment/Request	Commentor	Where Addressed
and the Regional Water Quality Control Board (RWQCB), requires EBMUD and the Satellite Agencies to eliminate WWF discharges by 2036. To meet this requirement, actions will need to be taken over time to reduce 1/1 in the system. The consent decree requires EBMUD to continue implementation of its Regional Private Sewer Lateral Ordinance (www.eastbaypsl.com), construct various improvements to its interceptor system, and identify key areas of inflow and rapid infiltration over a 22-year period. Over the same time period, the consent decree requires the Satellite Agencies to perform 1/1 reduction work including sewer main rehabilitation and elimination of inflow sources. EBMUD and the Satellite Agencies must jointly demonstrate at specified intervals that this work has resulted in a sufficient, pre-determined level of reduction in WWF discharges. If sufficient 1/1 reductions are not achieved, additional investment into the region's wastewater infrastructure would be required, which may result in significant financial implications for East Bay residents. To ensure that the project contributes to these legally required I/I reductions, the lead agency should require the project applicant to comply with EBMUD's Regional Private Sewer Lateral Ordinance. Additionally, it would be prudent for the lead agency to require the following mitigation measures for the proposed project: (1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines to ensure that such systems and lines are free from defects or, alternatively, disconnected from the sanitary sewer system, and (2) ensure any new wastewater collection systems, including sewer lateral lines, for the project are constructed to prevent I/I to the maximum extent		

Comment/Request	Commentor	Where Addressed
feasible while meeting all requirements contained in the Regional Private Sewer Lateral Ordinance and applicable municipal codes or Satellite Agency ordinances.		
WATER CONSERVATION: The project presents an opportunity to incorporate water conservation measures. EBMUD requests that the City include in its conditions of approval a requirement that the project sponsor comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The project sponsor should be aware that Section 3 1 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.	East Bay Municipal Utility District	IS Chapter XIX. Utilities and Service Systems.
Public Comments		
Overall Building Massing and Design		
BIRD STRIKES: [In reference to page 35 under Biological Resources] Unfortunately, the DEIR preparer missed that Berkeley is in the Pacific Flyway and any number of maps found online include the Bay Area with marshes, Berkeley's Aquatic Park. In the United States alone over 1 billion birds are killed each year by collisions with windows/glass. (https://abcbirds.org/glass-collisions/) Forty-four percent of bird glass collisions are into one- and two-story houses and buildings. Fifty-six percent of bird collisions with glass are with buildings three to eleven stories. The 100 100 100 rule is bird safe glass to 100% of all buildings on all sides from the	Kelly Hammargren	IS Chapter IV. Biological Resources.

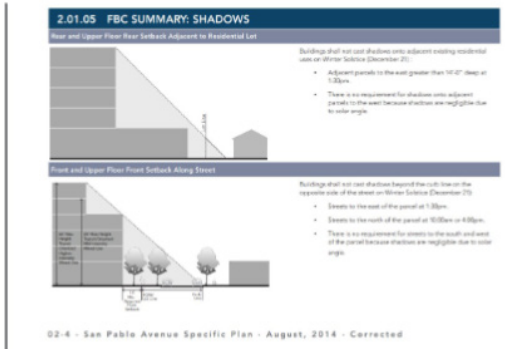
Comment/Request	Commentor	Where Addressed
ground to the eleventh floor. This building is under eleven floors so the mitigation would be to all glass all floors, all sides. The project can easily mitigate harm to migrating and local birds by following the 100 100 100 rule from the American Bird Conservancy by using bird safe glass throughout the entire project. The American Bird Conservancy lists multiple resources for bird safe glass as well as informing the reader of bird safe glass properties. (https://abcbirds.org/glass-collisions/nyc-threat-factor) …Facing a future of a warming planet, a warming climate with unpredictable potentially climate extreme heat and weather events, it seems incomprehensible that all those involved in the DEIR, City staff and the project developer would do anything other than enthusiastically embrace changing the building palate and bird safe glass and all other actions that reduce urban heat island effect, impacts to the environment and wildlife. These actions improve the quality of life for those who might find living at 2136 San Pablo in their future and the surrounding residents.		
ENERGY/THERMAL MASSING/HEAT ISLAND EFFECT: Under Energy the DEIR falls to note that the dark colors selected for the building exterior will absorb greater heat than light heat reflective finishes and not only increase energy consumption by the building, but also increase urban heat island effect. Here in Berkeley the climate is often referred to as mild, like the Mediterranean, however, California just experienced an extreme heat event that was on the edge of bringing down the grid on September 6, 2022. This warning was sent on September 6, 2022 at 5:48 pm: "Emergency Alert CalOES, Conserve energy now to protect public health and safety. Extreme heat is straining	Kelly Hammargren	N/A to CEQA. City may consider as part of Use Permit/Design Review.

Comment/Request	Commentor	Where Addressed
the energy grid. Power interruptions may occur unless you take immediate action. Turn off or reduce nonessential power if health allows, now until 9 pm." Enough residents receiving that warning immediately cut electricity use and the power demand plunged by 1.2 gigawatts between 5:50 and 5:55 pm. The 2019 updated Berkeley Local Hazard Mitigation Report adopted by Berkeley City Council in December 2019 on B-141 (pdf page 168) gives this warning: "Extreme heat events will increase in the Bay Area due to climate change in intensity, length, and frequency. By the end of the century, Bay Area residents may average six heat waves annually, which will average a length of ten days. Extreme heat threatens critical infrastructure, air quality, and public health. The urban heat island effect, where built surfaces absorb and retain heat causing higher nighttime temperatures, can exacerbate those health risks." (https://berkeleyca.gov/sites/default/files/2022-01/Local-Hazard-Mitigation-Plan-2019.pdf) As background, the Federal Mitigation Act of 2000 signed into law by President Clinton requires state and local governments to prepare the Local Hazard Mitigation Plan, a comprehensive risk reduction analysis, and to update the plan every five years. The Local Hazard Mitigation Plan on pages B-153, B-154 (pdf page count 180, 181) states: "Extreme heat events can be further exacerbated by the urban heat island (UHI) effect, through which densely-built cities like Berkeley experience higher temperatures in comparison to surrounding more rural areas. Factors contributing to the UHI effect include:		

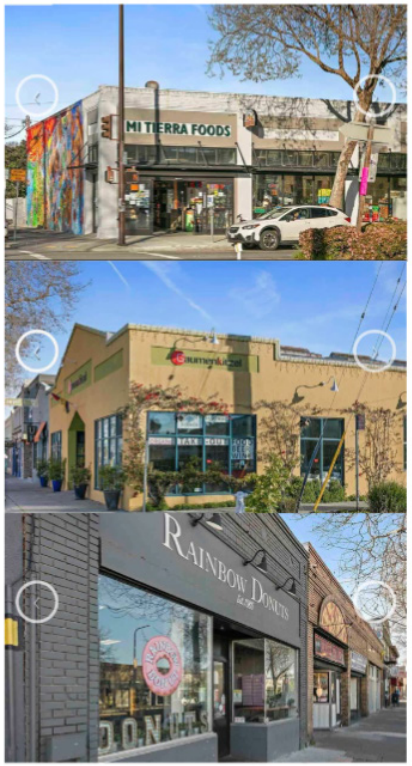
Comment/Request	Commentor	Where Addressed
• A relative lack of vegetation; • Reduced air flow; • **An abundance of hard, dark surfaces—such as buildings**, [emphasis added] streets, cars, and sidewalks— which absorb heat rather than reflect it. These surfaces also slowly release that absorbed heat throughout the night, contributing to warmer nighttime temperatures as well. The UHI effect can also worsen air quality (particularly ground-level ozone) in urban environments. The UHI effect increases heat-related illnesses and fatalities, particularly after two to three days of extreme heat. (https://berkeleyca.gov/sites/default/files/2022-01/Local-Hazard-Mitigation-Plan-2019.pdf) There are multiple resources for reducing Urban Heat Island effect. Berkeley Lab lists many published studies (https://heatisland.lbl.gov/publications). In 2019 the same year the Local Hazard Mitigation Plan was presented and then adopted Berkeley Lab published "Can't Take the Heat? 'Cool Walls' Can Reduce Energy Costs, Pollution" on July 9 by Glenn Roberts Jr. (https://newscenter.lbl.gov/2019/07/09/cool-walls-can-reduce-energy-costs-pollution/) Changing the palate of the project to lighter colors is shown to reduce energy and heat island impact. In terms of construction cost to the project, lighter surfaces that reflect rather than absorb heat is an easy fix.		

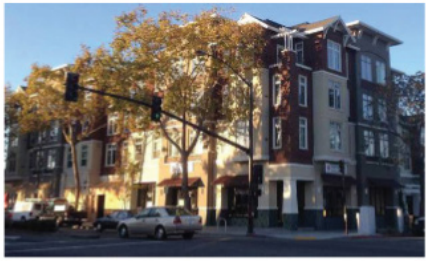
Comment/Request	Commentor	Where Addressed
… Facing a future of a warming planet, a warming climate with unpredictable potentially climate extreme heat and weather events, it seems incomprehensible that all those involved in the DEIR, City staff and the project developer would do anything other than enthusiastically embrace changing the building palate and bird safe glass and all other actions that reduce urban heat island effect, impacts to the environment and wildlife. These actions improve the quality of life for those who might find living at 2136 San Pablo in their future and the surrounding residents.		
ENERGY/THERMAL MASSING/HEAT ISLAND EFFECT: I recall hearing questions about the color of the project and being somewhat concerned about another dark, gray building. Might I suggest asking that the builders use newly developed white paint that is very effective at lowering the temperature of the structure that it is painted with this white paint. Here is a link to the information on this new paint that was developed by researchers at Purdue University. (https://www.purdue.edu/newsroom/releases/2021/Q2/the-whitest-paint-is-here-and-its-the-coolest.-literally..html)	Adam Whyte	N/A to CEQA. City to consider as part of Use Permit/Design Review.
Relationship to Neighborhood Context and Adjacent New Development		
BUILDING HEIGHT: The application proposes a 6-story building, which is two full stories above the current approved height for the zoning. There are currently very few 6-story buildings in Berkeley outside of downtown. The very dense development near University and 4th Street is all 5-story. All buildings along San Pablo from El Cerrito to Emeryville are 5 stories or less.	Miranda Maupin	N/A to CEQA. City may consider as part of Use Permit/Design Review.

Comment/Request	Commentor	Where Addressed
Even buildings along University are less than 5-story except for the downtown area. The successful adjacent commercial area and surrounding residential is primarily one story and in some cases 2-story, making a 6-story development very out of scale with the pedestrian-oriented neighborhood. There are two new developments on either side of the proposed development. The development at 2198 San Pablo is approved for 6-story. This development had very minimal public process. The completed development at 2100 San Pablo is 4-story. This development had 2 extensive very positive public engagement with the surrounding neighborhood. Please consider requiring a step back from the street and/or corners of any stories over 5, to protect the pedestrian scale street scape, and also step down from the 6- story development to the adjacent newly developed 4-story building. This will blend more architecturally with the very successful 1-story neighborhood grocery store, Mi Tierra and German restaurant, Guamankitzel at Addison and San Pablo. See guidelines below from the San Pablo Avenue Specific Plan.		

Comment/Request	Commentor	Where Addressed
Example of stepping down along the street edge to blend building heights.  *Example of stepping back from the street edge to mitigate shading and preserve the pedetstrian scale along the street.* 		
Loss of Historic Façade Details		
CORNICES/MULTIPANED WINDOWS: The applicant proposes to demolish the current historic commercial building built in the 1920sthat was designated as a landmark in October 2020. The Berkeley Landmark Commission determined that the building has historical architectural significance per California Register criterion 3 as its architecture embodies distinctive characteristics of its type and period.	Miranda Maupin	EIR Chapter VI. Impact Analysis – Cultural Resources.

Comment/Request	Commentor	Where Addressed
The very successful commercial area on the two blocks just North of the development from Addison to University consists of turn of the century 1-2 story buildings. Successful businesses along these two blocks include La Marcha Tapas Bar, Rainbow Donuts, Highwire Coffee, Luca Cucina Italian, Guamenkitzel, Mi Tierra, Middle Eastern Market, and Mi Ranchito Bayside Market. A new coffee and bakery just opened soon in the 1920's brick building formerly housing the famous Cheese Shop. This business district is successful in part due to the wonderful pedestrian scale street scape with the beautiful plane trees and charming 1920's commercial store fronts. Please consider replicating the 1920's facade in the new development with cornices and multi-paned windows to continue the historic commercial corridor up to University. *Photo of current building designated as a historic structure by the Berkeley Landmark Commission* 		

Comment/Request	Commentor	Where Addressed
Images of the one-story 1920's neighborhood commercial district showing awnings, landscaping along the buildings, cultural heritage murals and historic lighting features. 		
Shading Impacts		
See comment about "Stepping Down" by Miranda Maupin in the "Relationship to Neighborhood Context" section above. See the last image in the comment where shading is briefly mentioned.		N/A to CEQA. City may consider as part of Use Permit/Design Review.

Comment/Request	Commentor	Where Addressed
Lack of Sufficient Pedestrian Scale and Streetscape Improvements		
ARTICULATION: The proposed development drawings depict a monotonous bulk without articulation. Please consider requiring articulation similar to the University Ave and 4th Street residential buildings that include bays, porches and differentiated building materials. Also consider integrating architectural elements depicted in the previous set of images from the surrounding neighborhood commercial corridor such as historic pedestrian scale lighting, awnings, murals on exposed building sides and landscape planters along the building. *Example of a building utilizing materials, bump-outs, awnings, setbacks and different roof structures to create more articulation in a large building mass and mitigate the height with pedestrian scale design features.* 	Miranda Maupin	N/A to CEQA. City may consider as part of Use Permit/Design Review.
LANDSCAPING: Please consider streetscape amenities such as plantings along the building and room for outdoor sitting to continue the vibrant commercial ambiance outside Gaumenkitzel and Highwire coffee as show in the drawing below.	Miranda Maupin	N/A to CEQA. City may consider as part of Use Permit/Design Review.

Comment/Request	Commentor	Where Addressed
Example from the San Pablo Avenue Specific Plan Guidelines showing sidewalk amenities to create vibrancy along the streetscape. 		
Street Tree Removal		
SYCAMORES: It is a tragedy that this project will be removing Sycamore Trees with their large canopy and shading protection. Adding new small trees that will take years to mature and never provide the shading capacity of large canopy trees is a major loss and a contributor to urban heat island effect. Every effort needs to be made to preserve existing mature trees. Increasing permeable paving throughout the project wherever possible and especially around trees, recharges ground water and improves tree survival.	Kelly Hammargren	N/A to CEQA. City may consider as part of Use Permit/Design Review.
MATURE TREES: The development proposes to replace the 3 large plane trees along the street with new baby trees. The mature plane trees along San Pablo are a very special aesthetic, historic and ecological feature of the neighborhood. The mature trees will also help mitigate the extreme height differential of a 6-story building among 1-2 story buildings along the commercial corridor. It will take many years for the young trees to reach the mature height of the canopy along San Pablo.	Miranda Maupin	N/A to CEQA. City may consider as part of Use Permit/Design Review.

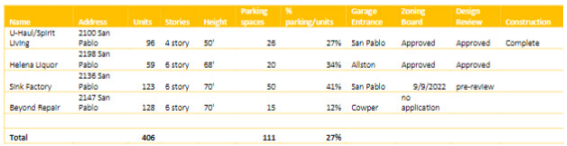
Comment/Request	Commentor	Where Addressed
One of the trees seems in poor shape, but please consider maintaining the two existing healthy trees to mitigate the height of the building. Please also require the replacement tree to be of sufficient size, for example 20 feet, again to mitigate the extreme change in height along this corridor.		
Traffic Concerns		
PARKING: Another thing that we have asked for when 2198 was being proposed was the possibility of the neighboring streets to the west of San Pablo (10th Street) to be granted two-hour limit parking zones to prevent cars from being left on the surrounding streets (for no longer then two hours between 8 am and 6 pm Monday thru Friday) once the projects are built. I believe we were told that this area is not zoned for this but I ask that this still be looked at as a way to prevent long term parking on the surrounding streets once these projects are built.	Adam Whyte	IS Chapter XVII. Transportation
CIRCULATION: In terms of cars coming out of 2136-2154, they will be forced to turn right and if they are trying to get back towards University then they will most likely take the first right on Alliston Way and then a right on 10th Street which will increase the traffic by our homes, the park on 10th Street. Might there be a way to add a left red turn arrow for the light on San Pablo and Alliston with a sign that allows for a u-turn to allow those cars coming out of 2136-2154 to head back towards University on San Pablo as opposed to driving through our residential area?	Adam Whyte	IS Chapter XVII. Transportation.
Driveway Location		
DRIVEWAY ENTRANCE: The proposed the parking garage entrance will be adjacent to the new 2100 San Pablo garage entrance across from Cowper Street.	Miranda Maupin	IS Chapter XVII. Transportation.

Comment/Request	Commentor	Where Addressed
This will result in 2 parking garages adjacent to each other creating a large pedestrian dead zone, and potential safety concerns for pedestrians. These entrances are both located at an uncontrolled intersection at San Pablo and Cowper Street, potentially creating unsafe conditions for pedestrians and autos trying to pull in and out near this uncontrolled intersection on an already very congested arterial. Please consider moving the garage to the southern end of the building on San Pablo away from the Cowper intersection to prevent a long dead zone along the sidewalk and the safety concerns around the intersection. Also please consider minimizing the size of the garage entrance and requiring a light, artful garage gate that can enliven the pedestrian streetscape.		
STOP SIGNS: Traffic immensely impacts the street scape and commercial viability, as well as the urban design of the neighborhood. This area of San Pablo is very congested during rush area, causing dangerous, high-speed cut-through traffic on Addison, Cowper and Allston. The development estimates 600 average daily car trips for the 127 apartments. This is a big impact, worthy of CEQA consideration, especially when considered along with the traffic generated from adjacent developments and the existing traffic issues resulting in dangerous cut-through traffic in adjacent neighborhoods. Please consider mitigation measures such as adding stop signs to the Cowper Street	Miranda Maupin	IS Chapter XVII. Transportation.

Comment/Request	Commentor	Where Addressed
intersection and restricting traffic on Cowper to just one way at San Pablo, allowing Cowper traffic to turn onto San Pablo, but not San Pablo to turn onto Cowper.		
Utilities		
WATER SUPPLY: Under Utilities and Service Systems the impact on water supply is listed as less than significant. That may be the analysis at this writing, however, for the future there is no reason to remain confident. Brian K. Sullivan's article from August 25, 2022, "The World's Rivers, Canals and Reservoirs Are Turning to Dust" should give everyone pause. (https://www.bloomberg.com/news/features/2022-08-26/why-are-rivers-drying-up-climate-change-turns-waterways-into-dust?srnd=premium&sref=McB70VY0)	Kelly Hammargren	IS Chapter XIX. Utilities and Service Systems.
Construction		
TIMING WITH CONCURRENT PROJECT: Ok so my first point of concern which I did express on the call is the status with the already approved 2198 San Pablo Ave Project (which is also mixed-use). So the architects who proposed and got 2198 approved are the same ones that are behind 2136-2154 San Pablo Ave Project. 2198 was approved over three years ago but has not started construction yet. I understand that COVID probably prevented investments to allow the project to happen but now I am concerned that this new project is being proposed and when it gets the green light then does it mean that both projects will be built at the same time? This seems like too much to have going on at the same time. Can there be more transparency regarding what the plan is for when these things will be constructed? Is the fact that 2198 is still on hold due to maybe waiting to get 2136-2154	Adam Whyte	N/A to CEQA. City may consider as part of Use Permit/Design Review.

Comment/Request	Commentor	Where Addressed
approved and then both can be pushed to be built at the same time?		
AIR MONITORS: Something that was talked about and I believe was approved for 2198 was the use of air monitors for the nearby surrounding homes during the construction. If the monitors indicated elevated levels of hazardous air then efforts would be made to help these homes to be protected from such exposures.	Adam Whyte	IS Chapter IX. Hazards and Hazardous Materials.
HOURS: Construction would have to happen at reasonable hours but if needed to happen earlier or go later, then we would be warned about his I am hoping.	Adam Whyte	City's Standard COAs.
Noise		
VENTS: The recently built memory care unit on the corner of Addison Street and San Pablo has a loud vent on the back of the building which we now hear and are hoping can be made less noticeable in the future. So we have concerns about what kinds of ongoing noises will be coming from the proposed new development.	Adam Whyte	IS Chapter XIII. Noise.
General – Not Project-Specific		
AB 2011: I get the sense the board has been given a mandate of finding places to build 9000 new units of housing in Berkeley. What about the recently passed A.B. 2011? Does that not open up the prospect of new areas to build affordable housing in commercial and parking zones?	Adam Whyte	N/A to CEQA. City may consider as part of Use Permit/Design Review.
CUMULATIVE IMPACTS: Finally, recent state development laws are having an enormous cumulative and disproportionate impact along San Pablo – transforming a predominately 1-2 story commercial district with adjacent single-family housing to a 6-story mixed use corridor. West Berkeley is bearing the brunt of the housing mandate due to	Miranda Maupin	EIR Chapter VI. Impact Analysis – Cultural Resources.

Comment/Request	Commentor	Where Addressed
lower property values and, frankly, less consideration for historically lower income (formerly red-lined) areas of the city with less capacity to engage and political influence. Despite most the development occurring in West Berkeley, the city has no development guidelines for this area of the city, as they do in downtown and currently under development for the BART stations. The only document is the 20-year-old West Berkeley plan, which truthfully was focused on promoting compatibility of light-industrial and residential and in no way anticipated 6-story development along San Pablo. The city must develop and adopt development guidelines for San Pablo that consider these factors at both an individual development as well as cumulative design as the street redevelops over time. These could be similar to design guidelines adopted by both adjacent municipalities, such as the attached San Pablo Avenue Specific Plan. Similar guidelines have been developed for downtown and the North Berkeley BART station; West Berkeley deserves similar consideration given the density that is anticipated for San Pablo due to SB330. The city needs to consider how to properly invest the tax revenue generated by this disproportionate housing development in West Berkeley to increase services and mitigate impacts specifically in West Berkeley. The housing plan element needs to ensure that this additional revenue is invested in the places where it is generated, and where the development is generating additional population and impacts.		

Comment/Request	Commentor	Where Addressed
Summary of Development on 2100 Block of San Pablo 		
Comments from Zoning Adjustments Board		
Look for ways to capture the old architecture of SPA; avoid losing the local character; address concerns about the vacant spaces on ground on SPA; address concerns about the loss of pedestrian traffic.	Board Member Hemphill	EIR Chapter VI. Impact Analysis – Cultural Resources; N/A to CEQA. City may consider as part of Use Permit/Design Review; IS Chapter XVII. Transportation.
Acknowledge the character of the existing building by mimicking or preserving elements of it; in the EIR study an option to incorporate architectural elements; consider less parking; look at garage orientation and possibly shift on SP with attention to impact to Cowper neighbors; look more closely at shading impact on residents; utilize bird-safe glass; consider delivery/drop-off parking space.	Board Member Tregub	EIR Chapter VI. Impact Analysis – Cultural Resources; N/A to CEQA. City may consider as part of Use Permit/Design Review; IS Chapter XVII. Transportation.
Investigate ways to "green" the project using EV charging, native plants, etc.	Board Member Kim	N/A to CEQA. City may consider as part of Use Permit/Design Review.
Study neighbor noise concerns (noise currently echoes off of 2100 SPA due to the loud fan noise coming from 2100); address concerns about how 2136 will extend a monolithic wall along SPA creating an echo tunnel; consider more sidewalk and more front setback for street tree canopies.	Board Member Sanderson	IS Chapter XIII. Noise; N/A to CEQA. City may consider as part of Use Permit/Design Review.
Utilize a stronger plant palette (natives and plants friendly to local insects in decline); plan for EV readiness; lighten color palette and use more colors; articulate the façade to help with noise/echoing; consider bird-safe glass (with proximity to park).	Board Member Kahn	N/A to CEQA. City may consider as part of Use Permit/Design Review; IS Chapter XIII. Noise.

Name	Address	Units	Stories	Height	Parking spaces	% parking/units	Garage Entrance	Zoning Board	Design Review	Construction
U-Haul/Spirit Living	2100 San Pablo	96	4 story	50'	26	27%	San Pablo	Approved	Approved	Complete
Helena Liquor	2198 San Pablo	59	6 story	68'	20	34%	Allston	Approved	Approved	
Sink Factory	2136 San Pablo	123	6 story	70'	50	41%	San Pablo	9/9/2022	pre-review	
Beyond Repair	2147 San Pablo	128	6 story	70'	15	12%	Cowper	no application		
Total		406			111	27%				

APPENDIX C

CULTURAL RESOURCES ANALYSIS

REDACTED

EVANS & DE SHAZO
ARCHAEOLOGY HISTORIC PRESERVATION

RESULTS OF A CULTURAL RESOURCES STUDY FOR THE PROPOSED PROJECT AT 2136-2154 SAN PABLO AVENUE, BERKELEY, ALAMEDA COUNTY, CALIFORNIA

PREPARED FOR:

Alison Lenci

Urban Planning Partners, Inc.

alenci@up-partners.com

PREPARED BY:

Sally Evans, M.A., RPA

Principal Archaeologist | Cultural Resource Specialist

sally@evans-deshazo.com

September 8, 2022

Evans & De Shazo, Inc.
1141 Gravenstein Highway South
Sebastopol, CA 95472
707-823-7400
www.evans-deshazo.com

STATEMENT OF CONFIDENTIALITY

This report identifies the locations of archaeological resources within Alameda County, which is confidential information, as the cultural, scientific, and artistic values associated with these archaeological sites can be damaged or destroyed through uncontrolled public disclosure of information about their locations.

Disclosure of this information to the public may be in violation of both federal and state laws. Information regarding the location, character or ownership of a historic resource is exempt from the Freedom of Information Act. Applicable United States (U.S.) laws include, but may not be limited to, Section 304 of the National Historic Preservation Act (16 USC 470w-3) and the Archaeological Resources Protection Act (16 USC 470hh). California state laws that apply include, but may not be limited to, Government Code Sections 6250 et seq. and 6254 et seq.

If any information in this document is to be released for public review, all locational information associated with archaeological resources must be redacted before public distribution.

TABLE OF CONTENTS

STATEMENT OF CONFIDENTIALITY ..... **I**

TABLE OF CONTENTS ..... **II**

INTRODUCTION **1**

PROJECT DESCRIPTION 1

PROJECT LOCATION 2

REGULATORY SETTING **5**

CALIFORNIA ENVIRONMENTAL QUALITY ACT 5

ENVIRONMENTAL SETTING **7**

CULTURAL SETTING **9**

PRECONTACT PERIOD/ARCHAEOLOGICAL CONTEXT 9

ETHNOHISTORIC SETTING 12

HISTORIC PERIOD SETTING 15

RECORD SEARCH AND LITERATURE REVIEW **30**

NWIC RECORD SEARCH 30

PROJECT AREA HISTORY 44

GEOARCHAEOLOGICAL ANALYSIS 52

SACRED LANDS INVENTORY AND TRIBAL CONSULTATION **53**

RESULTS OF SACRED LANDS INVENTORY 53

TRIBAL CONSULTATION 53

PEDESTRIAN FIELD SURVEY **55**

SURVEY DESCRIPTION AND METHODS 55

SURVEY RESULTS 55

GROUND-PENETRATING RADAR (GPR) SURVEY **58**

CONCLUSIONS **58**

RECOMMENDATIONS **59**

REFERENCES CITED **61**

ATTACHMENTS:

APPENDIX A: CORRESPONDENCE WITH THE NATIVE AMERICAN HERITAGE COMMISSION AND NATIVE AMERICAN TRIBES

APPENDIX B: DEPARTMENT OF PARKS AND RECREATION (DPR) 523 FORMS

APPENDIX C: GROUND-PENETRATING RADAR (GPR) SURVEY REPORT

INTRODUCTION

Evans & De Shazo, Inc. (EDS) completed Cultural Resources Study (CRS) of the property at 2136-2154 San Pablo Avenue, Berkeley, Alameda County, California (Project Area) for a project that includes the demolition of an existing 1923 storefront commercial building and construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very-low-income units (density bonus) (Project). The CRS was completed in support of an Initial Study and focused Environmental Impact Report (EIR) in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15183.3. The purpose of the CRS is to identify significant cultural resources that could be impacted by the proposed Project and provide recommendations if needed.

The CRS was completed by Principal Archaeologist, Sally Evans, M.A., RPA (#29300590), who exceeds the Secretary of Interior's professional qualification standards in Archaeology (36 CFR Part 61). The methods used to complete the CRS included a records search; a literature review to determine past land use activities within the Project Area and the potential/sensitivity for buried historic-period archaeological, as well as researching for any important historical events associated with the Project Area; a review of geologic, soils, and geoarchaeological information to assess the potential/sensitivity for precontact period buried archaeological resources; a Native American Sacred Lands inventory and tribal consultation; and a pedestrian survey. The results of the CRS are presented herein.

PROJECT DESCRIPTION

The proposed Project includes demolition of a 1923 storefront commercial building, previously designated a City of Berkeley Landmark, and the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with about 126 dwelling units, including three ground floor live/work units, as well as 10 very-low-income units (density bonus) (Project; Figure 1).



Figure 1: Project rendering (Trachtenberg Architects, 10/24/2019).

PROJECT LOCATION

The Project is located within the 0.53-acre property at 2136-2154 San Pablo Avenue, Berkeley, Alameda County, California, within Assessor Parcel Number (APN) 56-1799-11-1. The Project Area is in the western portion of the City of Berkeley, and is bordered by San Pablo Avenue on the east, a commercial building and single-family houses on the south, George Florence Park and multi-family residential buildings on the west, and a multi-family residential building (currently under construction) on the north. The San Francisco Bay is located approximately 0.9 miles to the west (Figure 2 and Figure 3).

The USGS 7.5-minute Oakland West, California quadrangle (1993) shows the Project Area within the unsectioned San Antonio (V and D Peralta) Land Grant in Township 1 South, Range 4 West, Mt. Diablo Base and Meridian (Figure 4). The Universal Transverse Mercator (UTM) grid coordinates at the approximate center of the Project Area are 562290 meters East and 4191280 meters North, Zone 10.

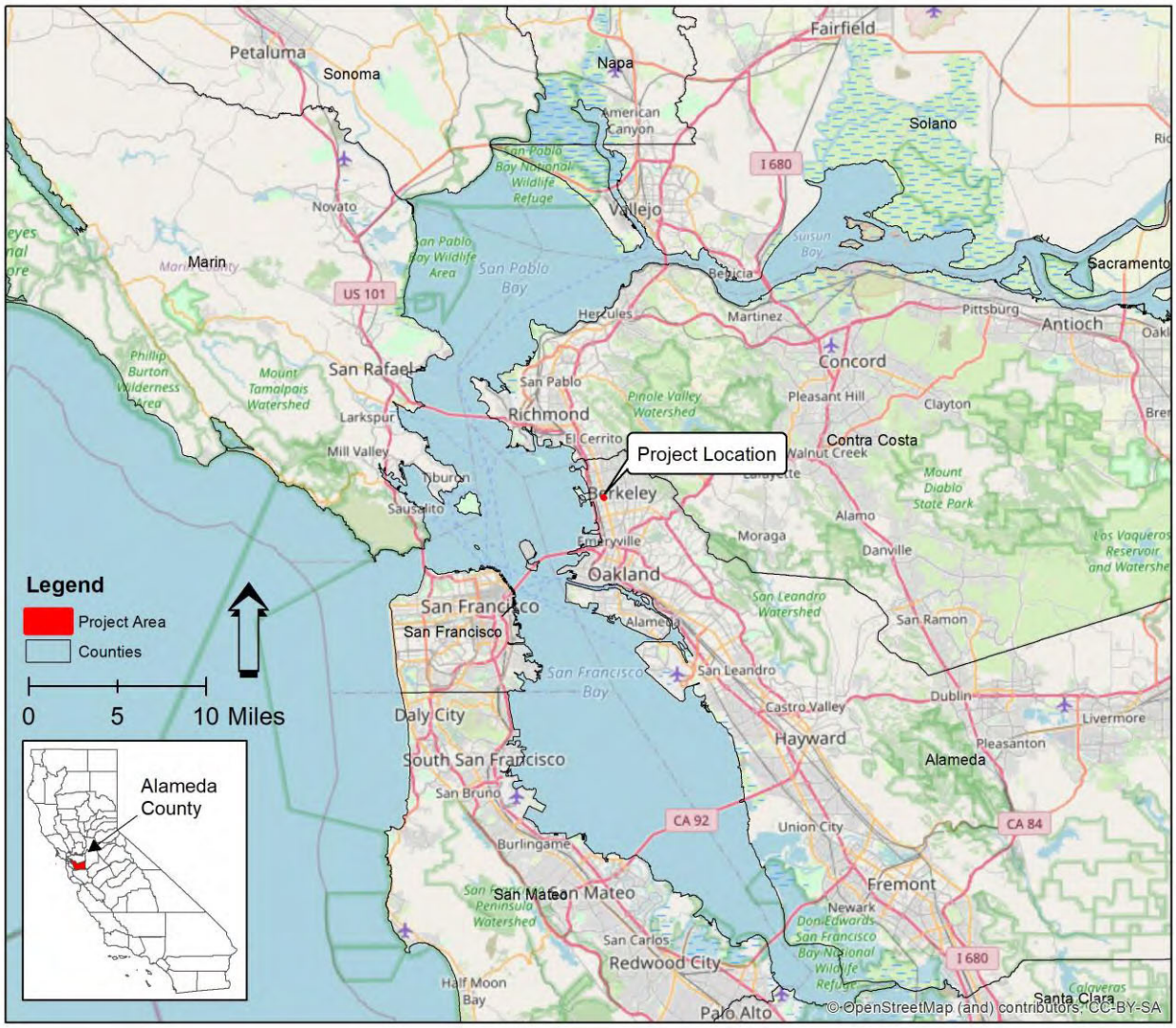


Figure 2: Project vicinity map.



Figure 3: Aerial photograph of the Project Area.

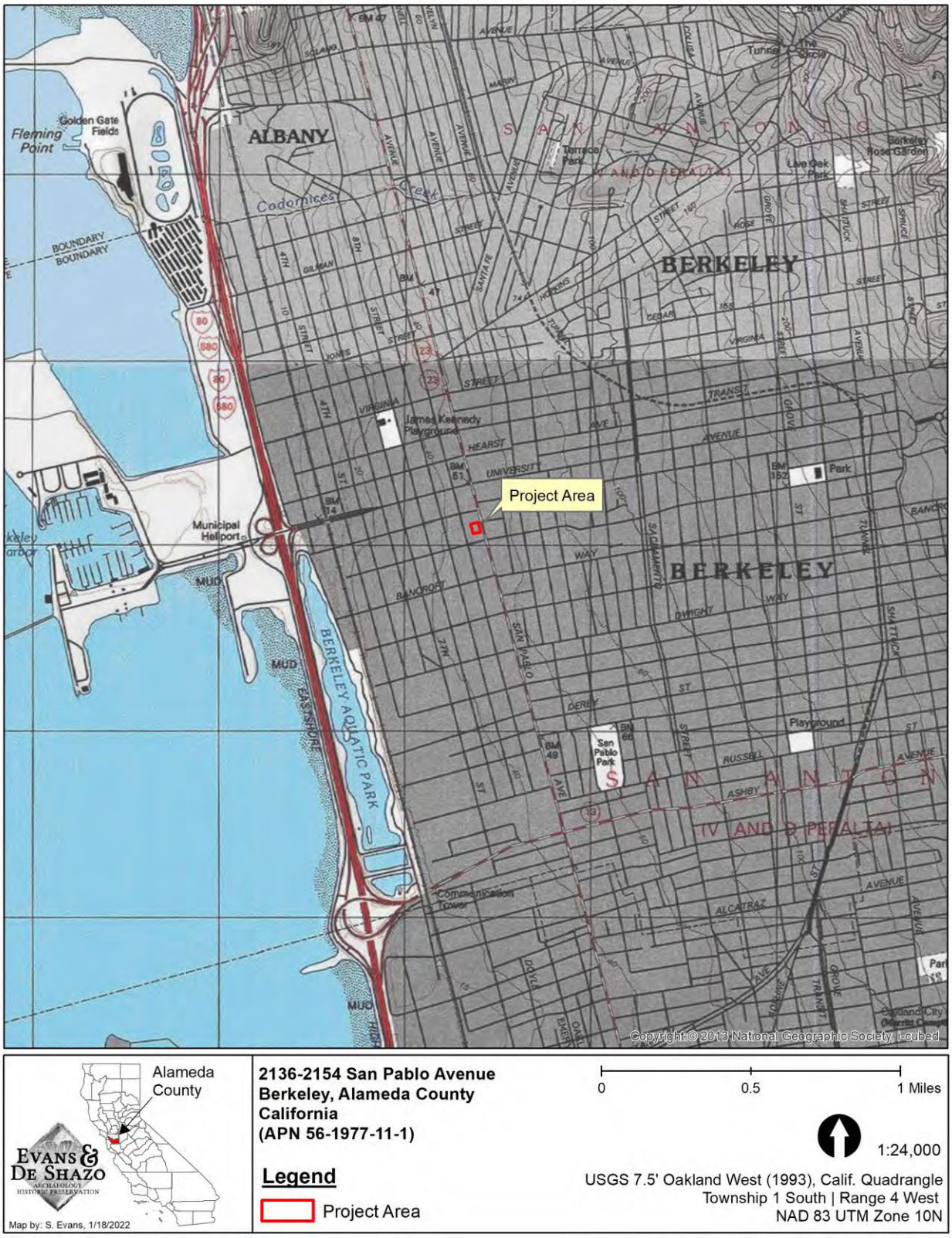


Figure 4: Project Area shown on the USGS 7.5' Oakland West, Calif. quadrangle (1993).

REGULATORY SETTING

The proposed Project is subject to compliance with CEQA, as outlined below.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA is encoded in PRC §21000 et seq with Guidelines for implementation codified in the California Code of Regulations (CCR), Title 14, Chapter 3, §15000 et seq. CEQA requires state and local public agencies to identify the environmental impacts of proposed discretionary activities on projects, determine if the impacts will be significant, and identify alternatives and mitigation measures that will substantially reduce or eliminate significant impacts to the environment. According to CEQA, cultural resources and tribal cultural resources are aspects of the environment that require identification and consideration regarding potential impacts (14 CCR §15064.5 and PRC §21084.1). The five classes of cultural resources defined by the State Office of Historic Preservation (OHP) include buildings, structures, objects, sites, and districts.

According to CCR §15064.5, buildings, structures, objects, sites, and districts are historically significant if they are:

- Listed in, or eligible for listing in the California Register of Historic Resources (CRHR) (PRC 5024.1, 14 CCR §4850 et. seq.);
- Listed in, or eligible for listing in, the National Register of Historic Places (NRHP);
- Included in a local register of historical resources, as defined in an historical resource survey meeting the requirements of §5024.1(g) of the PRC; or,

Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

California Register of Historical Resources (CRHR)

A resource may be listed as an historical resource in the CRHR if it has integrity and meets any of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. Associated with the lives of persons important to local, California or national history;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; or
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Buildings, sites, structures, objects, and districts representative of California and United States history, architecture, archaeology, engineering, and culture convey significance when they also possess integrity

of location, design, setting, materials, workmanship, feeling, and association. A resource has integrity if it retains the characteristics that were present during the resource's period of significance. Enough of these characteristics must remain to convey the reasons for its significance.

Unique Archaeological Resources

CEQA (PRC §21083.2) also considers impacts to "unique archaeological resources". A unique archaeological resource is defined as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type, or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Local Register of Historical Resources

A resource included in a local register of historical resources, as defined in PRC §5020.1(k), or identified as significant in an historical resource survey meeting the requirements §5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

Tribal Cultural Resources

According to PRC §21074, Tribal Cultural Resources are:

1. Sites, features, places, cultural landscapes, sacred places, or objects with cultural value to a California Native American tribe that are either (A) included or determined to be eligible for inclusion in the CRHR, or (B) included in a local register of historical resources as defined in subdivision (k) of PRC §5020.1.; or,
2. A resource that the lead agency chooses, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of §5024.1 - taking into account the significance of the resource to a California Native American tribe.

California Health and Safety Code §7050.5

California Health and Safety Code §7050.5 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 the remains are subject to the coroner's authority or not. 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 descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave good.

ENVIRONMENTAL SETTING

The Project Area is in the western portion of the City of Berkeley, which is a densely populated city in northwestern Alameda County. Alameda County encompasses approximately 78 square miles of land and water and has approximately 432,897 residents. Located in the East Bay region of the San Francisco Bay Area, the City of Berkeley borders the cities of Albany, Emeryville, Oakland, and Piedmont, and is bordered on the west by San Francisco Bay.

Like most of Northern California, the climate of the Berkeley area is largely governed by weather patterns originating in the Pacific Ocean. Climatic conditions in the area are generally characterized as Mediterranean with moist, mild winters and hot, dry summers. According to U.S. Climate Data, the City of Berkeley's high and low temperatures range from about 75 to 53 degrees Fahrenheit (F) in the summer and 59 to 42 degrees F in the winter. More than 90 percent of precipitation falls between November and April, with an annual rainfall amount of about 18 to 26 inches. The regional topography is variable and includes level terrain along the bay shores and steeper slopes along the Berkeley Hills to the east. The northwest/southeast trending Berkeley Hills are part of the Pacific Coast Range system and overlook the northeast side of the valley encompassing San Francisco Bay. The San Francisco Bay is approximately 0.9 miles west of the Project Area; however, prior to the reclamation of marshlands and subsequent urban development, the historical tidal marsh and bay lands boundary came within 0.5 miles of the Project Area.

The Project Area is situated within a topographically flat area in the western part of the City of Berkeley within a mixed commercial and residential area at approximately 52 feet above mean sea level (amsl). The Project Area is currently occupied with a multi-tenant storefront commercial building constructed in 1923. The nearest waterways to the Project Area include Strawberry Creek and Schoolhouse Creek, located 650 feet and 0.45 miles north of the Project Area, respectively (Figure 5).

According to the geologic map of the Oakland Metropolitan Area (Graymer 2000), the Project Area is located on a landform that consists of a Holocene-age (post 11,800 cal BP[1]) alluvial fan and fluvial deposit (geologic unit: Qhaf) containing fine-grained Holocene alluvium. These types of landforms consist mainly of gravel, sand, silt, and clay that were deposited by streams emanating from upland drainages, and include debris flows, mudflows, and braided stream deposits. Along the east side of the San Francisco Bay, alluvial fans form a series of gently sloping cone-shaped surfaces that often merge with one another on the valley floor to create low-lying "inter-fan" basins. The results of the geotechnical investigation completed by Rockridge Geotechnical in 2019, found the Project Area to be underlain by alluvium primarily consisting of stiff to very stiff clay with varying amounts of sand and gravel and medium dense sand with varying amounts of clay and gravel to the maximum depth explored of 50 feet below the surface.

[1] Calibrated (cal) years before present (BP).

Current soil maps can be found at the Natural Resources Conservation Service (NRCS) Web Soil Survey website (USDA 2022). The current soil map provided by the NRCS describes the soils within the Project Area as Urban land-Clear Lake complex. Urban land soils are created in the process of urbanization and are highly disturbed by human activity (i.e., cutting, filling, mixing). Clear Lake soils are very deep, poorly drained soils formed in fine-textured alluvium derived from igneous, metamorphic, and sedimentary rock. They are nearly level soils occurring on alluvial fans and basins. On average, Clear Lake clay soils extend approximately sixty inches below the surface and contain the following horizons: Ag, Bssg1, Bssg2, and Bssk. Subordinate horizons include 'g' (indicating gleyed, or wetland soil that unless drained is saturated with groundwater long enough to develop a characteristic gleyic color pattern made up of reddish, brownish, or yellowish colors) in the A horizon, 'ss' (indicating the presence of slickensides formed by shear movement in clayey soils as a result of shrinking and swelling), 'g' (described above), and 'k' (indicating accumulation of carbonates) in the B horizon. Importantly, no buried A horizons (paleosols; horizon Ab) are noted within this series (USDA 2022).

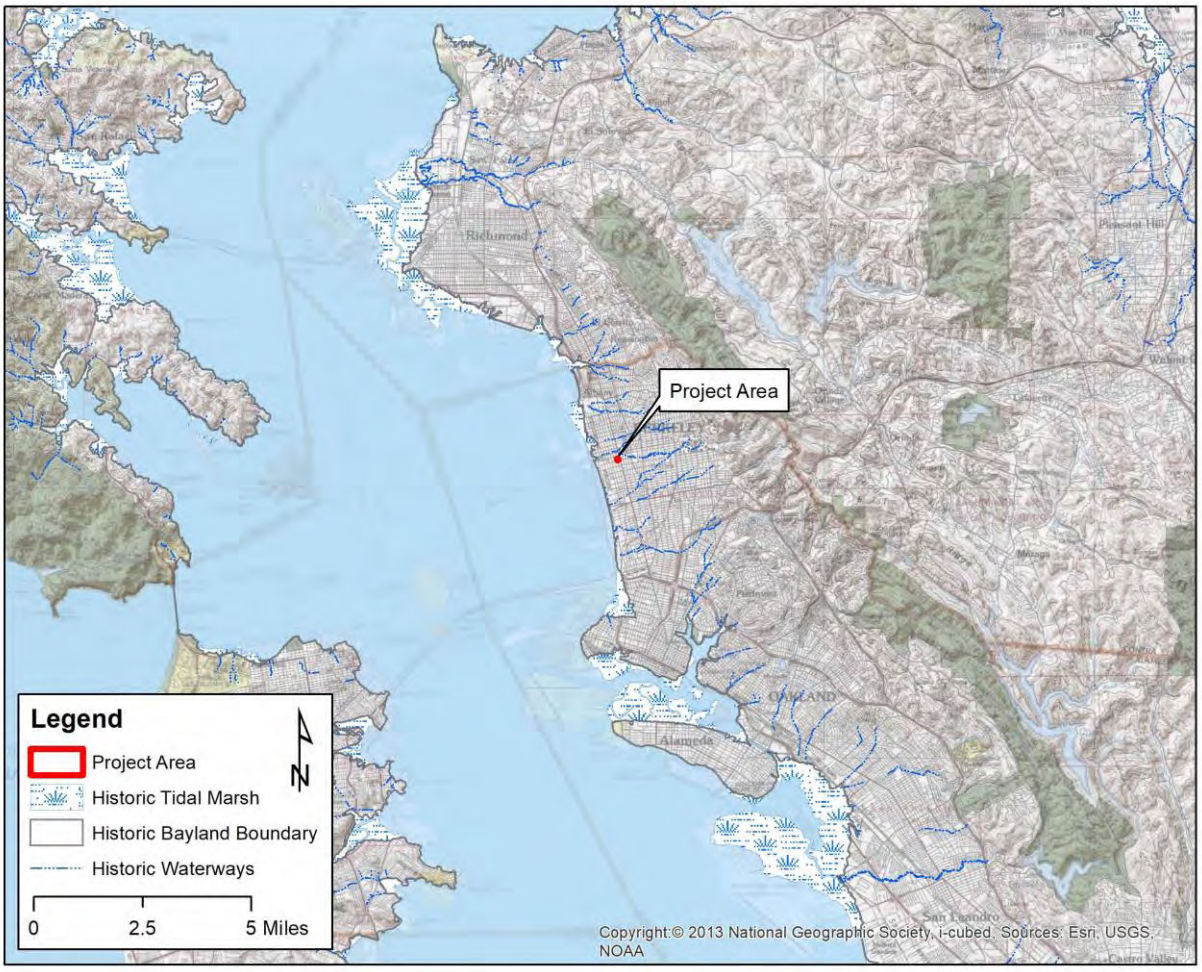


Figure 5: Project Area environmental setting.

CULTURAL SETTING

The following section provides an overview of the precontact period history, ethnohistory, and Euro-American history of the Project Area vicinity.

PRECONTACT PERIOD/ARCHAEOLOGICAL CONTEXT

The formation of the San Francisco Bay in the Holocene (post 11,700 years BP) allowed for dense populations to settle along the Bay Shore and in neighboring areas because the freshwater marshes, salt marshes, mud flats and open waters of the San Francisco Bay were extremely productive in natural resources during prehistoric times (Lightfoot and Luby 2002). The marshlands and mudflats supported clams, mussels, oysters, crabs, and several fish species, and the open water supported green and white sturgeon, Chinook and Coho salmon, bat rays, thresher and leopard sharks, surf perch, jack smelt and marine mammals, such as sea otters, harbor seals, and sea lions. There were also numerous migratory water birds and shorebirds present, like ducks, geese, cormorants, loons, and grebes (Lightfoot and Luby 2002). The surrounding terrestrial landscape contained extensive grassland and oak woodland that supported a variety of plant and animal resources. From these areas, Native Americans gathered a variety of nuts, seeds, berries, greens, and tubers, and hunted large terrestrial animals like deer, elk, and pronghorn antelope, as well as smaller fauna like jackrabbit, brush rabbit, squirrel, wood rat and quail (Lightfoot and Luby 2002; Moratto 1984). Historically, the Project Area was situated approximately 0.5 miles east of the historical tidal marsh and bay lands boundary.

The following sections provide an overview of the precontact period history of the San Francisco Bay-Delta region that is based on a hybrid classification system organized by geologic time segments that include the Terminal Pleistocene (13,500 – 11,700 cal BP), Early Holocene (11,700 – 8,200 cal BP), Middle Holocene (8,200 – 4,200 can BP), and Late Holocene (post 4,200 can BP). The Late Holocene is further divided into shorter time periods using the Late Holocene Scheme D chronological sequence for the San Francisco Bay Area that is divided into the following time periods: Early Period (4,200–2,550 cal BP), Early/Middle Transition Period (2,550–2,150 cal BP), Middle Period (2,150–930 cal BP), Middle/Late Transition Period (930–685 cal BP), Late Period (685–180 cal BP), and Historic/Mission period (180-115 cal BP).

Terminal Pleistocene (13,500 – 11,700 cal BP)

Solid evidence of human occupation in California during the Terminal Pleistocene is scarce and poorly understood; however, there have been some discoveries of isolated fluted projectile points in California that are thought to be similar in cultural affiliation and age as the fluted points associated with the Clovis tradition dating to around 11,500 cal BP. Fluted points have been documented in at least five places in California (Byrd et al. 2017; Heizer 1938; Meighan and Haynes 1970; Moratto 1984; Peak and Weber 1978), although none have been documented in the San Francisco Bay Area (Byrd et al. 2017). This is possibly because populations during this time were small and highly mobile and left scant evidence of their activities on the landscape, and due to Holocene-era changes in the landscape (Byrd et al. 2017).

Early Holocene (11,700 – 8,200 cal BP)

During the Early Holocene, people living in the San Francisco Bay-Delta region, including the interior East Bay, were mobile foragers, characterized by a "Millingstone culture" that used milling slabs and handstones, crude cores and core tools, and various types of large wide-stemmed and leaf-shaped projectile points (Milliken et al. 2007:114; Wiberg 2010:31). The settlement pattern is thought to be based on high residential mobility and limited exchange (Wiberg 2010:31). Four Early Holocene archaeological sites have been documented in the San Francisco Bay-Delta region, including in eastern Contra Costa County (Meyer and Rosenthal 1997, 1998), Solano County (Hildebrandt et al. 2012), and in Fremont (Meyer 2015), all of which were found in a buried context.

Middle Holocene (8,200 – 4,200 cal BP)

There is more direct evidence of occupation in the San Francisco Bay-Delta region during the Middle Holocene than there is in the Early Holocene, as indicated by the 60 plus sites that have been documented in the San Francisco Bay-Delta region dating to this period (Byrd et al. 2017). Artifacts associated with this period include a variety of ground stone tools (mortars/pestles and metates/manos), side-notched dart points, cobble tools, and a variety of shell beads and ornaments (Fitzgerald 1993; Meyer and Rosenthal 1998). The presence of an extensive trade network by at least 5,200 cal BP is indicated by the "Type N" grooved rectangular *Olivella* shell beads that are found in sites across a large region, and obsidian from sources located from the Napa Valley and eastern Sierra Nevada (Casa Diablo and Bodie Hills sources) (Byrd et al. 2017). The first evidence for the use of the San Francisco Bay's estuarine resources is also indicated during this period by the presence of shell midden deposits in Alameda, Marin, Contra Costa County, and San Mateo counties (Byrd et al. 2017). Faunal remains indicate reliance on seasonal waterfowl and anadromous and freshwater fish, although a wide range of habitats were utilized, consistent with either semi-permanent occupation (Byrd et al. 2017).

[redacted]

Late Holocene (4,200 – 180 cal BP)

Due to the greater number of archaeological sites that have produced stylistic artifacts and radiocarbon dates, the Late Holocene is generally divided into the Early Period (4,200–2,550 cal BP), Early/Middle Transition Period (2,550–2,150 cal BP), Middle Period (2,150–930 cal BP), Middle/Late Transition Period (930–685 cal BP), and Late Period (685–180 cal BP). The Late Holocene is very well-documented in the Bay-Delta Area, with more than 240 radiocarbon-dated sites reflecting widespread occupation (Milliken et al. 2007).

Early Period (4,200 – 2,550 cal BP)

The Early Period marks a shift from a mobile foraging pattern to a sedentary and semi-sedentary land use pattern along the Bay Shore and interior valleys, commensurate with an increase in population and social complexity (Milliken et al. 2007:114-115). The more sedentary way of life coincided with the availability of new resources as the San Francisco Bay estuary matured. "Bay margin sites reveal a strong emphasis on marine shellfish, marine fishes, and marine mammals…In contrast, interior sites emphasized freshwater fish and shellfish along with terrestrial mammals. Nuts, berries, and small seeds

appear to have been particularly important plant foods" (Byrd et al. 2017). Cultural patterns that emerged in the San Francisco Bay region during this period include Windmiller in the Delta Region and Lower Berkeley along the Bay Shore (Milliken et al. 2007). The Early Period was also marked by significant climatic changes during which warmer and drier conditions led to the desiccation of lake basins in southern California (Schwitalla 2013).

Middle Period (2,150–930 cal BP)

The Middle Period is marked by a population increase, a greater level of sedentism, with fixed permanent villages, and fixed group territories (Lightfoot and Luby 2002:276; Milliken et al. 2007:115-116; Wiberg 2010:31). Population growth led to restricted mobility, which led to resource intensification, increased cooperation, and greater social complexity (Milliken et al. 2007:99). In the latter half of the Middle Period and the Middle/Late Period Transition (930–685 cal BP), a dramatic cultural disruption occurred, marked by changes in shell bead types, settlement patterns, and food resources (Milliken et al. 2007:116). The Berkeley Pattern was well established by the Middle Period, with artifacts including mortars and pestles in greater numbers than previous periods, which imply greater reliance on nuts and seeds, as well as a variety of bone tools, indicating a greater reliance on fish and marine mammals (Elsasser 1978:39; Hildebrandt and Jones 1992:382; Moratto 1984:277). Shellfish collecting was also a significant activity, as indicated by the deposition of massive quantities of shell, mostly mussel, in shellmound sites. Hunting is implied by spear and dart-sized projectile points, which were propelled using an atlatl, as well as high frequencies of deer and elk remains (Beardsley 1954; Hildebrandt and Jones 1992:382).

Middle/Late Transition Period (930–685 cal BP)

Starting at the end of the Middle Period and continuing in the Middle/Late Period Transition, many Bay Shore sites were abandoned as residential places and then later reused as special-purpose sites in the Late Period (Lightfoot and Luby 2002:277), possibly due to population decline, drought conditions that affected the availability of marine resources, the migration of Patwin speaking people into the North Bay, or the return to a semisedentary settlement system (Ingram 1998; Lightfoot and Luby 2002:279; Schwitalla 2013). Zooarchaeological data suggest that the abandonment of shellmounds as residential places does not coincide with a population decline, as some sites evince continued resource intensification in the Late Period due to overhunting (Broughton 1994).

Late Period (685–180 cal BP)

Occupation during the Late Period is well-documented and thought to be associated with a new level of sedentism, status ascription, an increase in ceremonialism, and regional trade. It appears that an economic relationship was maintained among the many small autonomous socio-political groups, and trade was frequent (Hylkema 2002). Sites from this time period are associated with the Augustine Pattern, with artifacts indicating a continued reliance on acorns and the introduction of the bow-and-arrow. Clamshell disk beads also occur in sites dating to this period, which were used as exchange currency with a standardized value (Milliken et al. 2007). Shifts in technology, artifact types, and mortuary practices, which, for the most part, spread throughout the San Francisco Bay Area from north to south, appear to indicate that another upward cycle of regional integration took place during this period, which was stopped short by Spanish colonization and the missionization of Native peoples.

ETHNOHISTORIC SETTING

The Project Area is situated within the ethnohistoric territory of the Costanoan (preferably called Ohlone) whose territory includes the west, south, and eastern shores of the San Francisco Bay and much of the interior South Bay and East Bay. The word *Costanoan* is from the Spanish word Costaños, which means "coast people," and refers to a language family, not a political entity. Costanoan includes a family of eight languages, four of which were spoken by people in the San Francisco Bay area. *Chochenyo* was a language spoken among the communities occupying the east shore of San Francisco Bay between Richmond and San Jose, including where the Project Area is located, and in the Livermore Valley area (Figure 6) (Levy 1978). People speaking *Chochenyo,* and other Costanoan languages, were further divided into independent communities that consisted of people occupying specific territories that were typically defined by physiographic features (Milliken 1995). Present-day Berkeley is within *Huchiun* territory, whose land extends over a large area along the East Bay shore, from Temescal Creek north to at least the lower San Pablo and Wildcat Creek drainages in the present area of Richmond (Milliken 1995:243; Figure 7). People who lived in these village communities held access to the natural resources within their territory, which typically required one or more primary villages and numerous smaller villages that were used seasonally to secure the necessary resources on a seasonal basis (Heizer and Elsasser 1980). The name of each community typically came from the location of the main village (Milliken 1995).



Figure 6: Ethno-historic Tribal linguistic boundaries in the San Francisco Bay area.

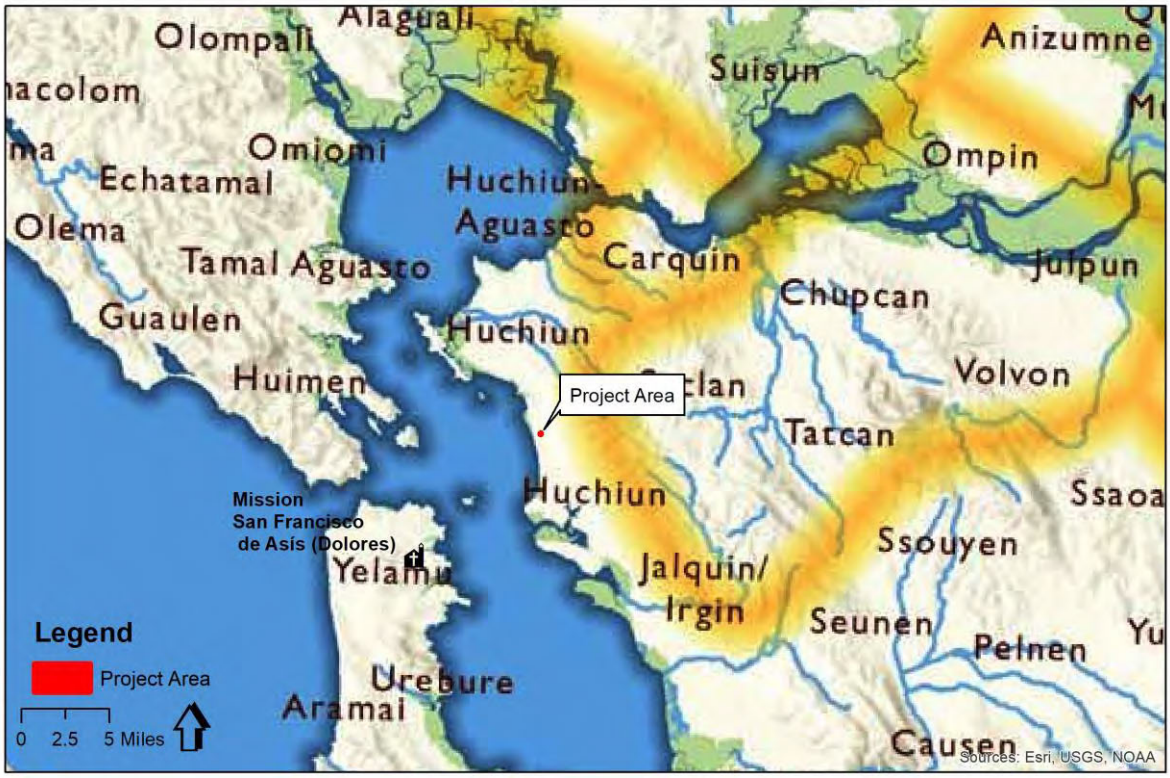


Figure 7: Tribal groups in the San Francisco Bay-Delta Area at the time of Spanish settlement in 1776 (based on map produced by Beverly Ortiz, East Bay Regional Park District).

Costanoan Subsistence and Material Cultural

Prior to European colonization and the take-over of their land, Ohlone communities living along the Bay Shore relieved heavily on marine resources, supplemented by terrestrial mammals and plant resources available from the surrounding areas (Milliken 1995). Mollusks, including mussels, clams, cockles, and oysters were considerably important food resources to the people living near the bay shore (Levy 1978). Steelhead, salmon, sturgeon, and lampreys were some of the more important fish species that were caught by tribal people. They caught fish using dip nets with stone net sinkers, basketry fish traps, poisons, and hook and line (Levy 1978). They also regularly hunted sea otters, seals, and sea lions (Kroeber 1925:467). Birds such as the mourning dove, robin, and California quail were caught using bone and cord bolas or traps, but waterfowl were the most important birds in the Costanoan diet (Levy 1978). Ohlone people ate at least nine species of duck and geese, which they captured in nets using decoys of tules or stuffed bird skin. Although most animals were hunted for food, some birds, including eagle, hawk, and condor, were highly valued for their bones, which could be modified into tools or ceremonial objects (Winter 1978). A variety of terrestrial mammals, including deer, elk, antelope, bear, rabbit, squirrel, woodrat, mouse, and mole were also hunted.

Economically important plant foods for the Ohlone people included the fruit of coast live oak, valley oak, California black oak, tanbark oak, buckeye, California laurel, and hazelnuts. Acorns were, and still are, an important plant food and were collected in large quantities and stored. Acorns, as well as buckeye, are processed by removing the hard exterior, pulverizing the inner nut in a mortar bowl using a pestle (basketry, wood, and stone mortars of various types were used), then leaching with water to remove

the tannins. Hazelnuts and California laurel nuts were also eaten, as well as a variety of seeds, such as dock, tarweed, chia, and digger pine. Several types of berries, including blackberries, elderberries, strawberries, Manzanita berries, gooseberries, madrone berries, grapes, and toyon berries were also collected and eaten, as well as several varieties of tubers and roots, such as wild onion, cattail, amole, and hog fennel (Levy 1978).

Ohlone people made and used a variety of baskets for the collection, preparation, and storage of food, and for other purposes. Baskets included mush bowls, cooking baskets, parching trays, storage baskets, sifters, small animal and fish traps, trinket containers, canteens, and burden baskets (Levy 1978). Manufacturing techniques included twining and sometimes coiling to produce baskets that could be multicolored or decorated with feathers and shell.

The bow-and-arrow constituted an important part of the technology that Ohlone people used to hunt both large and small game. Both unbacked and sinew-backed bows, ranging from 3 to 4½ feet long, were used to launch arrows fitted with lithic or bone points. They manufactured bowstrings from animal sinew or vegetal fibers. The typical arrow was a compound arrow consisting of a cane shaft fletched with three feathers and a hardwood foreshaft to which a projectile point was usually, but not necessarily, attached. The Ohlone used asphaltum, a natural tar-like substance, as an adhesive for fletching (Levy 1978; Switzer 1974), and fashioned bifaces, knives, and scrapers from locally available chert and obsidian obtained in trade.

Ohlone people also used tule balsa boats to navigate the San Francisco Bay and rivers during hunting and gathering forays and for trade. They made balsa boats using bundles of tule reeds, also called bulrushes, that they tied together with cordage made from milkweed, Indian hemp, or nettle, and were stabilized with Willow poles. The boats were propelled using double-bladed wooded paddles and anchored with stones tied to a rope (Font 1930; Levy 1978). The presence of archaeological sites on islands within the San Francisco Bay indicates that balsa boats were used to navigate the Bay as early as 3,400 cal BP (Morgan and Dexter 2008).

Ohlone people wore clothing that was simple and minimal, and included small aprons of grass or tule netting or twine to cover the pubic area and a larger apron of deer or otter skin in the back, as well as robes of rabbit, sea otter, deerskin, or duck feathers to protect from the cold; and sometimes mud was used (Levy 1978). Ohlone people also wore feathers as hair adornments and wove them into jackets. Shell decorated "hairnets" and necklaces made of strung shells were also worn. Tattooing, piercing of the nasal septum, and the use of body paint was also a known practice (Galvan 1971; Levy 1978).

Ohlone people constructed two types of houses, one for summer use and one for winter use. Houses were dome- or cone-shaped and covered with thatch over a frame of poles. Thatching materials included tule, grass, alfalfa, and ferns, all of which can be identified through phytolith and/or pollen analysis. The structures were designed and built with a rectangular doorway and a firepit in the center (Levy 1978). Ohlone people also constructed small sweathouses, assembly houses, and dance enclosures within larger villages. Levy (1978) states that the assembly house or dance enclosure was usually located in the center of the village with residential buildings situated around the periphery and the sweathouse located along (and partially built into) a nearby stream bank.

HISTORIC PERIOD SETTING

The Spanish Colonial Period (1769 - 1822)

Due to the determination of King Carlos III of Spain to occupy and colonize "Alta California" [2] several Spanish expeditions through the San Francisco Bay region occurred between 1769 and 1776, including those led by Fagas in 1770 and 1772, Rivera and Palou in 1774, and de Anza in 1776. The expedition led by Pedro Fagas in 1772, which included Father Juan Crespi, six soldiers, and a Native American guide, traveled from Monterey through present-day Milpitas, San Lorenzo, Oakland, Berkeley, and Albany, reaching the area near present-day Pinole on March 28, 1772 (Cook 1957:131). From Pinole, the expedition traveled through Rodeo and Crocket to Martinez on their way towards the Delta region before stopping to camp near present-day Pittsburg in Contra Costa County. On March 31st, they began their journey back to Monterey via Walnut Creek and Danville, and on April 1st they passed through the area of San Ramon, Dublin, and Pleasanton (Cook 1957). It was during this trip that the expedition first encountered *Huchiun* people living in a village along Wildcat Creek in San Pablo. The Fagas expedition was soon followed in 1776 by a party led by Captain Juan Bautista de Anza accompanied by Father Pedro Font (Anza-Font expedition), who generally took the same route as the Fagas expedition (Beck and Haase 1974:17). Then in 1775, Captain Ayala's expedition explored the San Francisco Bay by boat, as well as the lower reaches of the Sacramento and San Joaquin rivers in search of a suitable place to build a mission. These expeditions resulted in establishment of the Presidio of San Francisco and Mission San Francisco de Asís (1776) in present-day San Francisco, Mission Santa Clara de Asís (1777) in present-day Santa Clara, and the Mission San Jose de Guadalupe (1797) in present-day San Jose.

The Indigenous Native American tribes of the San Francisco Bay-Delta region were subject to state-sponsored genocide and fought for their survival when the Spanish began to colonize the area and convert them to Catholicism. The colonizers introduced new diseases for which Native American people had no immunity to and sought to incorporate Indigenous people into the Spanish colonial empire to further the Spanish goals of political, economic, and religious expansion in the Americas (Milliken 1995). Spanish mission records indicate that at least one *Huchiun* individual was taken to the mission and baptized in 1787, with the first large groups taken in the fall of 1794 (Milliken 1995:243).

During this time, the Project Area was within *Huchiun* land that had been stolen from them to create the 44,800-acre land grant known as *Rancho San Antonio*, which was granted in 1820 by Governor Pablo Vincente de Sola (the last Spanish Governor of California) to Don Luis Maria Peralta. Peralta was seventeen years old when he joined his father, Corporal Gabriel Peralta, on the Font-Anza Expedition in 1775-1776. In 1776, Don Luis, along with his father, mother, and two siblings, moved to the *El Pueblo de San Jose de Guadalupe* (in present-day San Jose), which was the first pueblo-town established in upper Alta California that was not associated with a mission or a military presidio. The Peralta's were one of the first 15 families to move to the new town. Following his father's footsteps, Don Luis enlisted in the Spanish military at the age of 21, and by 1807, he had become the Comisionado (Military Governor) of *El Pueblo de San Jose de Guadalupe* (Friends of Peralta Hacienda Historical Park 2020). In 1784, Don Luis

[2] *Alta California* was a polity of New Spain founded in 1769 and became a territory of Mexico after the end of the Mexican War of Independence on 1821.

married Maria Loreto Alviso at Mission Santa Clara and they had seventeen children, of which four sons and five daughters survived to adulthood. In 1820, after forty years of service in the Spanish military, Don Luis was granted *Rancho San Antonio*, which was one of the largest land grants given during the Spanish period. The rancho included the present-day cities of Albany, Berkeley, Oakland, Alameda, Emeryville, Piedmont, and part of San Leandro.

The Mexican Period (1821 - 1846)

In 1810, a civil war erupted in Spanish-ruled Mexico, and Alta California found itself cut off from Mexico, which was the main source of supplies and the primary market for surplus crops produced at the time. As a result, illegal trading began to occur with foreign ships, which allowed locals to exchange their surplus agricultural products and hides and tallow for imported products such as tea, coffee, spices, clothing, leather goods, and other goods. In 1821, Mexico declared its independence from Spain and took possession of Alta California, marking the end of the Spanish period and the beginning of the Mexican period, also referred to as the "rancho" period in Alta California. Many changes occurred throughout Alta California during this time, as the Mexican government lacked the strong oversight and military rule previously imposed by the Spanish, and as such, new opportunities arose for trade and imported products like tea, coffee, sugars, spices, spirits of all kinds, as well as a variety of manufactured goods made their way into the region. The taxes on these imported goods became a main source of revenue for the Mexican government, as well as exported products including hides and tallow. Also, in 1833-34, the missions in California were secularized, and mission-owned land was dissolved.

In order to encourage settlement in sparsely settled Alta California, the new government also began to award large land grants to army officers and foreigners who were permitted to relocate and settle in Alta California. As a result, the 20 or so ranchos that were issued during the Spanish period, including *Rancho San Antonio*, increased to over 800, each between 10,000 and 20,000 acres in size. Since a rancho owner's income during this time was dependent on the amount of hide and tallow produced; their wealth was often determined by the size of the rancho, the number of cattle they owned, and the availability of a labor force, which consisted mostly of Indians who had been released from the missions and poor Mexicans who depended on the rancho owners for their basic needs during this time (Silliman 2004).

The new Mexican government in Alta California confirmed Don Luis Maria Peralta's claim to the *Rancho San Antonio* following Mexican Independence from Spain in 1822. Don Luis never lived on the rancho, but to establish his ownership, he sent his third son, Antonio Marie Peralta (1801-1879), to build the first adobe within the rancho in 1821. Sometime around 1828, Antonio and his wife, Maria Dolores Galindo moved onto the rancho, and were soon followed by brothers José Domingo, Hermenegildo Ignacio, and José Vicente. Eventually, they all constructed houses in various parts of the rancho in order to better manage the land.

> *"José Domingo Peralta (1795-1865), who had his own rancho in present-day Santa Clara-San Mateo counties, was convinced to move to Rancho San Antonio in the 1830s and eventually built an adobe in 1841 in the northernmost part of the rancho in what is now the city of Berkeley. The oldest son, Hermenegildo Ignacio (1791-1874), after retiring as alcalde in San José, came to the rancho in 1835 and established a residence in the*

> *southernmost area in present-day northern San Leandro. The youngest son, José Vicente (1812-1871), lived with his brother Antonio until he married and built his own adobe in 1836 in what is now the northern Temescal district of Oakland" (*Hacienda Peralta Historical Park 2020)*.*

In 1842, at the age of 83, Don Luis Maria Peralta decided it was time to divide up the ranch land between his four sons, as he had already given cattle to his three married daughters and planned to leave his adobe and land in San Jose to his two unmarried daughters who still lived with him (Hacienda Peralta Historical Park 2020). Don Luis split the rancho into four, with Antonio receiving a 16,067-acre portion that extended from present-day 68th Avenue to Lake Merritt and up the eastern side of Lake Merritt to Indian Gulch, now known as Trestle Glen, and all of present-day Alameda. Ignacio received an approximate 9,416-acre portion that extended from southeastern San Leandro Creek to approximately 68th Avenue in Oakland. Vicente received the acreage that included the entire original town of Oakland, from Lake Merritt to the present Temescal district. The Project Area is located within the portion given to Domingo, which included all of present-day Albany and Berkeley and a small portion of northern Oakland (Hacienda Peralta Historical Park 2020). When Don Luis died in 1842, his estate was valued at $1,383,500.00 ($30 million in today's value).

Early American Period (1848 - 1858)

In 1845, the U.S. annexed Texas, which was an act not formally recognized by the Mexican government, and by the spring of 1846, Mexico and the U.S. had entered an armed conflict known as the Mexican American War (1846-1848). The American Period in California is marked by the end of the Mexican American War, when the U.S. took possession of all or part of California, Nevada, Utah, Arizona, New Mexico, Colorado, and Wyoming in the signing of the Treaty of Guadalupe Hidalgo (1848). The treaty provided Mexicans living within the captured territories their American citizenship and guaranteed title to land granted during the Mexican period. However, on January 24, 1848, two weeks before the treaty signing, James W. Marshall discovered gold at Sutter's Mill along the American River, which marked the beginning of the Gold Rush-era (1848 to 1855) in California. Soon the excitement of the Gold Rush brought between 150,000 and 200,000 new settlers (known as "49ers") to California from all over the U.S., as well as Scotland, Ireland, England, Germany, France, China, and other countries (Clay 1999).

For the first few years of the California Gold Rush (1848-1850), *Rancho San Antonio* remained prosperous, as the Peralta's made a significant amount of money supplying beef and flour to the miners. However, the massive influx of new settlers soon gave rise to land disputes as "squatters" began to move onto vacant rancho land that they perceived to be available for settlement. To settle at least some issues relating to land ownership, and to investigate and confirm land titles of grants issued in the Mexican Period, officials acquired the provincial records of the Spanish and Mexican governments in Monterey and transferred them to the U.S. Surveyor General's Office in San Francisco, including land deeds, sketch maps (*disenos*), and various other documents. In 1851, the U.S. passed the California Land Act that established a three-member Public Land Commission to review these records and determine the validity of the land grants. The Surveyor General was also put in charge of surveying the confirmed land grants. Of the 813 grants ultimately claimed, the Public Land Commission approved 553 of them; although, some of the confirmed land grants were reduced in size, as the cost of litigation forced many

rancho owners to sell their land and cattle to pay for legal fees (California Secretary of State 2020; Olmsted 1986).

As required by the California Land Act of 1851, the Peralta brothers filed a claim for *Rancho San Antonio* with the Public Lands Commission in 1852 (Wollenberg 2008). Both Ignacio and Antonio received separate patents for their portions, and Vicente and Domingo applied for a joint patent for their two sections that totaled 19,143 acres (Figure 8). Vincente's portion became known as *Rancho Temescal* and Domingo's portion became known as *Rancho Cordonices* (Hacienda Peralta Historical Park 2020). At this time, a large portion of their land was already occupied by squatters or had been sold to raise money to support their land claim; however, Domingo managed to maintain ownership of approximately 300-acres of land around his house, which was located on the south bank of Codornices Creek in present-day Berkeley, and in 1851-1852, he constructed a second home within his land that consisted of a two-story frame house located near the present-day intersection of Hopkins and Sacramento streets in Berkeley (Sorensen and Albany Historical Society 2007). However, squatters continued to encroach upon Domingo's land and in 1852, an Irish immigrant named Michael Curtis, who had squatted on Domingo's 300-acre property this same year, claimed ownership of a 160-acre portion of the 300-acre property. This same year Domingo was arrested for assaulting two squatters he found on his land and was found guilty and fined $700 for the offense, but nothing was done to remove the squatters (Wollenberg 2008).

In 1854, the Commission confirmed Domingo's title to what remained of the land grant; however, the decision was appealed, and after many years, a federal district court ruled on the title of the land claimed by Domingo that reversed the decision by the Commission in 1854 (Wollenberg 2008). Jose Domingo then appealed the decision to U.S. Supreme Court, which was among only a few dozen Public Lands Commission cases that made it all the way to the U.S. Supreme Court. However, in 1865, before the land case could be resolved, Domingo died, and in 1867, his heirs were removed from the title of what remained of the 300-acre property. It was not until 1877 that the U.S. Supreme Court finally ruled on the case brought by Domingo, which confirmed that he was, in fact, the legal owner of his land; however, despite the ruling, his heirs were unable to recover any of the land rightfully owned by Domingo.



Figure 8: 1859 Plat of the Northern Part of the Rancho San Antonio finally confirmed to Vincente and Domingo Peralta. The red star indicates the general location of the Project Area (Online Archives of California).

History of Berkeley (1850 – 1960s)

In 1850, California became a state, and in 1853, the California Governor authorized the creation of Alameda County, which was created from a division of Contra Costa County, as well as a small portion of Santa Clara County. During this time, the area that became Berkeley was then the northern part of the "Oakland Township" subdivision of Alameda County and mainly consisted of open land, grain and dairy farms and ranches, and pastureland utilized for cattle and sheep grazing but was rapidly changing due to the influx of new settlers, many who were failed gold miners who came to the area in search of work and available land to farm. As the area of Berkeley began to be populated by American and Euro-American settlers, it developed two separate communities, one in "East Berkeley" (aka the "hills") and the other in "West Berkeley" (aka the "flats") (Wollenberg 2008) (Figure 9).

The Project Area is adjacent to the area known as "West Berkeley". The development of **West Berkeley** began with a small settlement in an area known by locals as "Ocean View", which was located along the "flats" of the east shore of the San Francisco Bay at the mouth of Strawberry Creek (Wollenberg 2008). The community got its start when Captain James Jacobs anchored his vessel along the creek in 1853 and began providing transportation to new settlers, who were mainly farming grain and cattle grazing on former Rancho San Antonio land. At this time, communities along the East Bay shore, including Oakland and the City of Alameda, were developing as important transportation regions with direct access to the bay, providing settlers with a means to transport their goods to San Francisco and other distant ports. Captain Jacobs, who, like many other settlers during this time, came to California in search of gold; however, he soon realized that profits could more easily be made in the transportation of goods.

In 1854, Captain Jacobs built a small wharf along the bay at the mouth of Strawberry Creek, approximately 0.9 miles northwest of the Project Area, which later became known Jacobs's Landing, and soon became a transportation hub for the new community (Berkeley Historical Society 2010). This same year, Captain William Bowen opened an inn on an established wagon and stagecoach route, which extended north-south along the bay shoreline in West Berkeley. The thoroughfare ran parallel to an old trail used by Francisco María Castro, who owned the adjacent *Rancho San Pablo* during the Mexican period, which locals informally called "San Pablo Road"; and by the early 1870s, the road was officially named San Pablo Avenue. Bowen's Inn, which served food, drinks, and had a general store, was one of the first businesses within West Berkeley.

In 1855, early settlers John Everding and A.A. Rammelsburg erected the "Pioneer Starch and Grist Mill" in West Berkeley, where local grain farmers provided the mill with raw material that was then shipped to market via Jacob's Landing. A year after the mill began operation, the West Berkeley community saw the construction of Z. B. Heywood's lumber yard. As the small community grew, the area soon saw the construction of small family farms, as well as housing for farm workers, including small "villages" developed in the area where Chinese immigrants worked in the mill and lumber yard. In 1856, the "Ocean View School" was established on San Pablo Avenue, just north of Bowen's Inn. By 1860, the U.S. Federal Census found 69 people living in the small community of West Berkeley.

The development of **East Berkeley** began in the early 1850s, when Francis Kittredge Shattuck, who was unsuccessful in gold mining, and his brother-in-law, George Blake, along with their two business partners, James Leonard and William Hillegrass, squatted on land owned by Jose Domingo Peralta within

West Berkeley. In 1852, the four business partners filed four adjacent 160-acre land claims, totaling 640-acres, bounded by present-day College Avenue, Martin Luther King Jr. Way, Addison Street, and Russell Street. The business partners then divided-up the 640-acres into four personal estates, each taking a 160-acre section for development.

In 1855, Henry Durant and Samuel Hopkins Willey, New England Congregationalist ministers, teamed up to establish a Christian college in Oakland known as the College of California. However, Durant and Willey determined that the location where they had opened the college was situated within a neighborhood in Oakland that was too rowdy for higher learning (Wollenberg 2008). As such, they began looking for other areas to construct a new campus for their college. They found land along Strawberry Creek at the base of the Berkeley Hills, which offered commanding views of the Bay and of the Pacific Ocean through the Golden Gate (Wollenberg 2008). The land was owned by Captain Orrin Simmons, a former sea captain who operated a ranch within his 700-acre property (Charbonneau 1990). By 1857, Durant and Willey had persuaded the members of the college Board of Trustees (Board) to allocate funds to purchase a portion of Simmons' land; however, the Board eventually agreed to purchase the entire 700-acre property in the amount of $35,000. In 1860, the Board, along with Willey and Durant, gathered at a rock outcrop within the property (known as Founders' Rock) for a ceremony dedicating the new college. The College of California's *College Homestead Association* planned to raise funds to construct the new campus by selling off adjacent parcels of land; as such, they laid out a plat and street grid that became the basis of East Berkeley's modern street plan. However, their plans fell short, and instead, they began a collaboration with the State of California that culminated with the creation of a public university - the University of California (U.C. Berkeley) - in 1868. The new campus was designed by Frederick Law Olmsted, who also designed New York's Central Park.

As construction began on the new site, more residences were constructed in the vicinity of the new campus in the area of East Berkeley. Ensuring continuity with the "intellectual character" of the new college community in East Berkeley, the north-south streets were named in alphabetical order for men of science, including Audubon (now College Avenue), Bowditch, Choate (now Telegraph Avenue), Dana, Ellsworth, Fulton, and Guyot (now Shattuck Avenue). East-west streets took the names of men of letters, including Allston, Bancroft, Channing, and Dwight (Wollenberg 2008). In 1873, the U.C. Berkeley campus was completed (Figure 10). At this time, the area around the college consisted of one restaurant and a small hotel near the downtown area; however, there were no sidewalks, and housing for new residents was in short supply (Figure 11). As such, students and faculty continued to live in Oakland, commuting via a horse-drawn trolley that ran from Temescal in Oakland to the university campus along what is now Telegraph Avenue until homes and boarding houses were built in support of the growing college community (Wollenberg 2008). The first post office opened in 1872.

In 1873, several prominent businesspeople in West Berkeley, including Jacobs and Rammelsburg, joined with former U.C. Berkeley president founder Henry Durant to create the "Berkeley Land and Town Improvement Association" to promote the development of West Berkeley. Local leaders soon laid out streets on a grid plan, subsidized a short-lived ferry service to San Francisco, and promoted their community as a profitable location for businesses.

In 1877, the Southern Pacific Railroad (SPRR) constructed the transcontinental mainline along the West Berkeley shore, which provided businesses with direct access to the rail network for the first time. As a result, new businesses opened in West Berkeley in the late 1870s, including the Standard Soap Company (Figure 12), the Niehaus and Schuster Planning Mill, and the Cornell Watch Company. During this time, the population of West Berkeley consisted of a melting pot of immigrants, including Irish, Scandinavian, Canadian, Chinese, and Chilean immigrants, who worked in the mills and manufacturing plants in the area. By the end of the nineteenth century, Germans outnumbered Irish as the largest foreign-born group, and Italians, Portuguese, and a small population of African Americans were also living within West Berkeley. During this time, Chinese immigrants mainly worked in the mills or manufacturing plants, but they also operated independent laundries and were farmers who raised fruits and vegetables on small, rented parcels of land within present-day central Berkeley, often selling their produce door-to-door.

By the late 1870s, East Berkeley and West Berkeley were fairly established communities; however, not only were the two communities physically separated by fields and pastures, but they differed socially, economically, and culturally. The area of East Berkeley was primarily occupied by middle or upper-middle-class, native-born Protestants, many of whom were working in professional occupations, and West Berkeley was occupied by a blend of people with different ethnic backgrounds and religious beliefs (mainly Catholic) with working-class backgrounds. Despite these differences, on April 1, 1878, the two communities formally came together to establish the City of Berkeley.

In 1879, the community of "Claremont", south of U.C. Berkeley within the former area of East Berkeley, was established by the newly founded City of Berkeley for the development of an exclusive residential community, and by 1880, a portion of Telegraph Road through Claremont Canyon was changed to Claremont Avenue (Wollenberg 2008). During this time, Shattuck Avenue (previously known as Shattuck Road) was developing as the commercial corridor (aka commercial core) where a right-of-way had been granted to the Central Pacific Railroad along the south side of the Shattuck Avenue (Figure 13). The rail line along Shattuck and the Central Pacific Berkeley Station opened on August 16, 1876.

By the 1890s, Berkeley, like many other urban cities, placed a high priority on the development of an urban transit system. In 1891, the electric rail system made its debut within the City of Berkeley with a rail line that ran from the City of Oakland along Grove Street (now Martin Luther King Jr. Way) to downtown Berkeley and the U.C. Berkeley campus. The Grove Street line was an immediate success and stimulated the construction of additional electric rail systems in the East Bay. By 1893, there was an effort underway to consolidate the separate lines through the East Bay into a single, integrated electric rail system that would eventually cover the entire urban East Bay, which was known as the “Key System”. The men behind the push for consolidation were Francis Smith and Frank Havens. Smith, who was living at his large estate in Oakland, had made a substantial fortune operating borax mines in southeastern California; and Havens, who was a San Francisco lawyer, often teamed with Smith on investment opportunities. In 1893, Smith and Havens formed the “Oakland Transit Consolidated” company, which bought up existing electric streetcar franchises throughout the East Bay. After they purchased the franchises, they also built new lines and integrated them into a unified rail network (Wollenberg 2008). At this time, the upscale residential developments within the “Claremont” neighborhood were nearly fully developed, and in 1906 construction began on the Claremont Hotel

within the Claremont neighborhood, which was completed in 1912. During this time, real estate interests in Berkeley were aligned with the "Key System", which supported the construction of the Claremont Hotel at the mouth of Claremont Canyon. The Key System ran one of its commuter trains directly to the hotel up Claremont Avenue until service ended in 1958, and it was sold in 1960 to Alameda-Contra Costa (AC) Transit District.

In the early 1900s, the automobile was introduced to the American consumer and San Pablo Avenue was used as a thoroughfare from Oakland to Berkeley and onto the City of Albany (Figure 14). The residential areas of Berkeley had further developed with wealthy residential neighborhoods located in east Berkeley and the working-class neighborhoods located in west Berkeley. In 1905, two well-known land developers, David Mason and Duncan McDuffie formed a partnership known as "Mason-McDuffie" to develop high-end residential neighborhoods in Berkeley, including "Claremont Court" in east Berkeley that consisted of large houses set within a gated community, designed to appeal to wealthy "Caucasian" buyers (Wollenberg 2008). In 1906, construction began on the luxurious Claremont Hotel within the Claremont neighborhood, which was completed in 1912; and by the 1920s, the Claremont Court community under the homeowner's association known as "Claremont Community Club" created a restricted covenant that prevented the purchase of property by those who were not "Caucasian". This was not unusual, as during this time, many cities throughout the U.S., including Berkeley, engaged in explicit residential segregation.

In 1916, Berkeley became the second city in California to establish a Planning Commission. By 1920, the City of Berkeley had developed into a prosperous urban city with a population of 56,000 (Archives and Architecture LLC 2015). During this time, real estate interests in Berkeley were aligned with the "Key System", which supported residential housing and businesses in the developing commercial area near University and San Pablo Avenues (Figure 15). In 1923, a major fire swept down the Berkeley Hills toward the university campus and into the commercial core of Berkeley. The fire destroyed approximately 640 buildings, 584 of which were houses. Although the fire was a significant set-back, the city continued to prosper until the stock market crash in 1929, ushering in the Great Depression (1929-1933). In 1933, to end the Great Depression, President Franklin Roosevelt signed into law programs, public work projects, financial reforms, and regulations known as the New Deal. The New Deal included the establishment of a government agency known as the "Home Owners' Loan Corporation" (HOLC), which was created to help homeowners who were in default on their mortgages and offered affordable mortgages to new buyers.

Between 1935 and 1940, HOLC produced maps of 250 cities around the U.S., including one for the City of Berkeley. The HOLC maps were used to help banks assess the risk of lending money to prospective homeowners. For the purpose of assessing the level of risk of lending money, the maps divide areas within a city into different grades: A = "best", B = "desirable", C = "declining", and D = "hazardous". The HOLC map system became known as "redlining" because of its coloring of each grade with green, blue, yellow, and red; red representing the worst grade – "hazardous", which typically included areas where minorities and disenfranchised communities of color lived. The Project Area is located within an area categorized as D, "hazardous" (Figure 16).

In 1941, after the attack on Pearl Harbor, the U.S. entered World War II (WWII). Although anti-Japanese sentiment existed previous to WWII, public opinion that was mainly fueled by wartime hysteria and racism quickly turned against the Japanese Americans following the attack on Pearl Harbor. According to the 1940 the U.S. Federal Census, during this time Berkeley's population of 56,750 people included 1,319 Japanese residents, and of those, 859 were American-born citizens, and 460 were Japanese nationals. On April 24, 1942, under U.S. Presidential Executive Order 9066, which was enacted in reaction to Pearl Harbor and the ensuing war, all persons of Japanese ancestry in Berkeley were given one week to prepare for their forced removal to internment camps and of the approximate 1,400 Japanese Americans that were relocated from Berkeley to internment camps, roughly 500 were students attending the UC Berkeley at the time.

During the war, the City of Berkeley saw significant population and economic growth. Large numbers of people moved to the Bay Area to work in the many war industries, such as the Kaiser Shipyards in the nearby City of Richmond. The African American population in Berkeley increased by more than four times, and by 1945 nearly 70 percent of the African American wage earners in the Bay Area worked in just one industry - shipbuilding. While there were no shipbuilding facilities in Berkeley, residents found low rent in west and southwest Berkeley where there was easy access to the largest war-time employers via the transit routes that linked Berkeley to Moore Drydock and other yards at the Oakland Estuary. The Key System also laid new tracks on San Pablo Avenue and Cutting Boulevard, approximately 4.8 miles north of the Project Area. The new line provided service to the Kaiser complex in Richmond, and these transit connections along San Pablo Avenue made Berkeley a convenient place for wartime residents to live.

The 1950s brought moderate growth to City of Berkeley, which remained relatively quiet during this time (Archives and Architecture LLC 2015). However, by the early 1960s, with the increasing presence of U.S. troops in Vietnam during the Vietnam War (1955 – 1975), students, led by student activist Mario Savio (Figure 17), attending U.C. Berkeley, began holding "protest speeches" on the campus. The movement, which began in 1964, became known as the "Free Speech Movement". Today, Berkeley continues to be strongly associated with social change, social justice, and the political upheaval that characterized the city during the 1960s and 1970s.

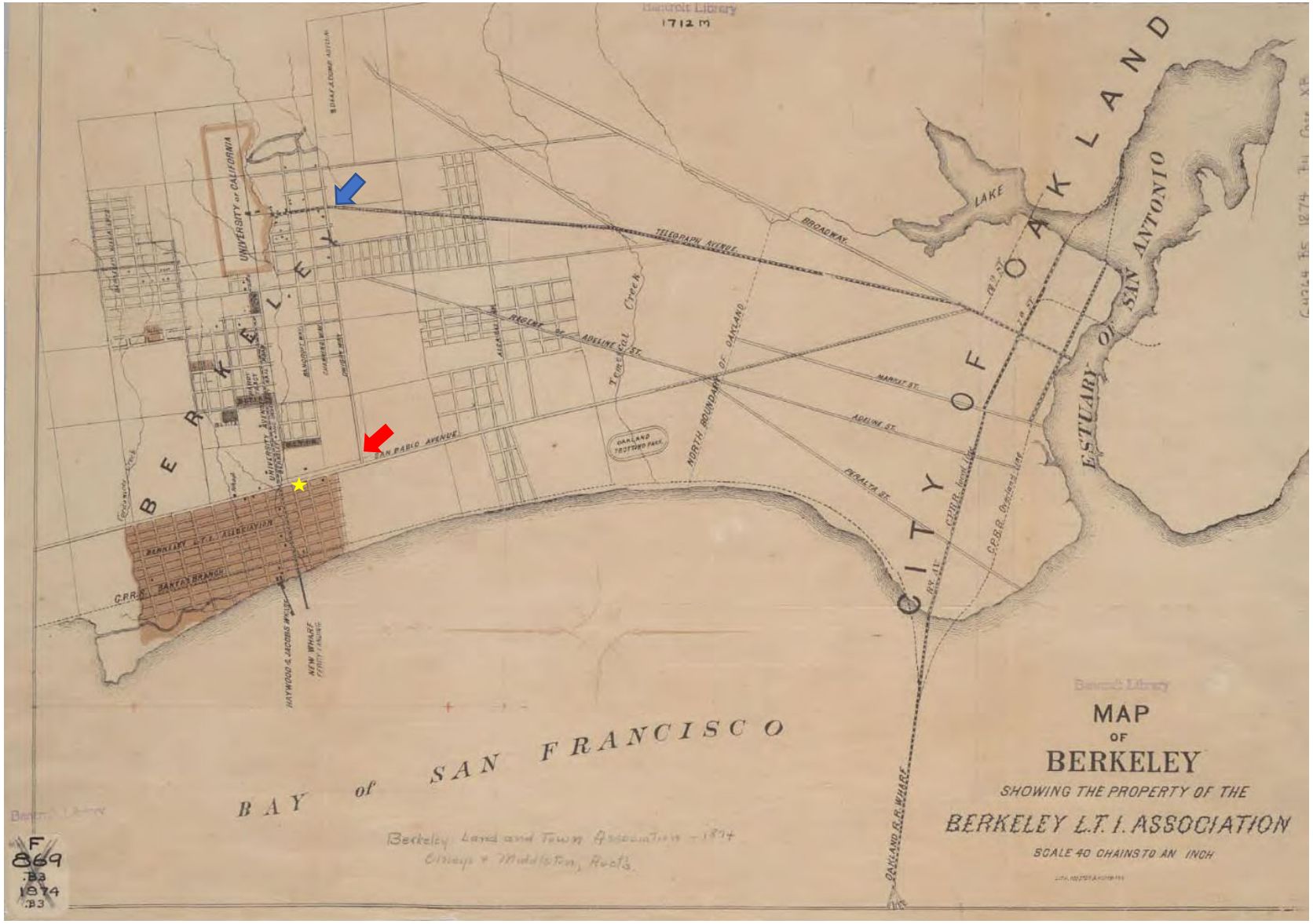


Figure 9: 1874 map of Berkeley showing the development of West Berkeley, also known as "Ocean View" near the San Francisco Bay (red arrow) with the Project Area indicated by the yellow star, and East Berkeley near the hills (blue arrow) (courtesy of the Berkeley Public Library).

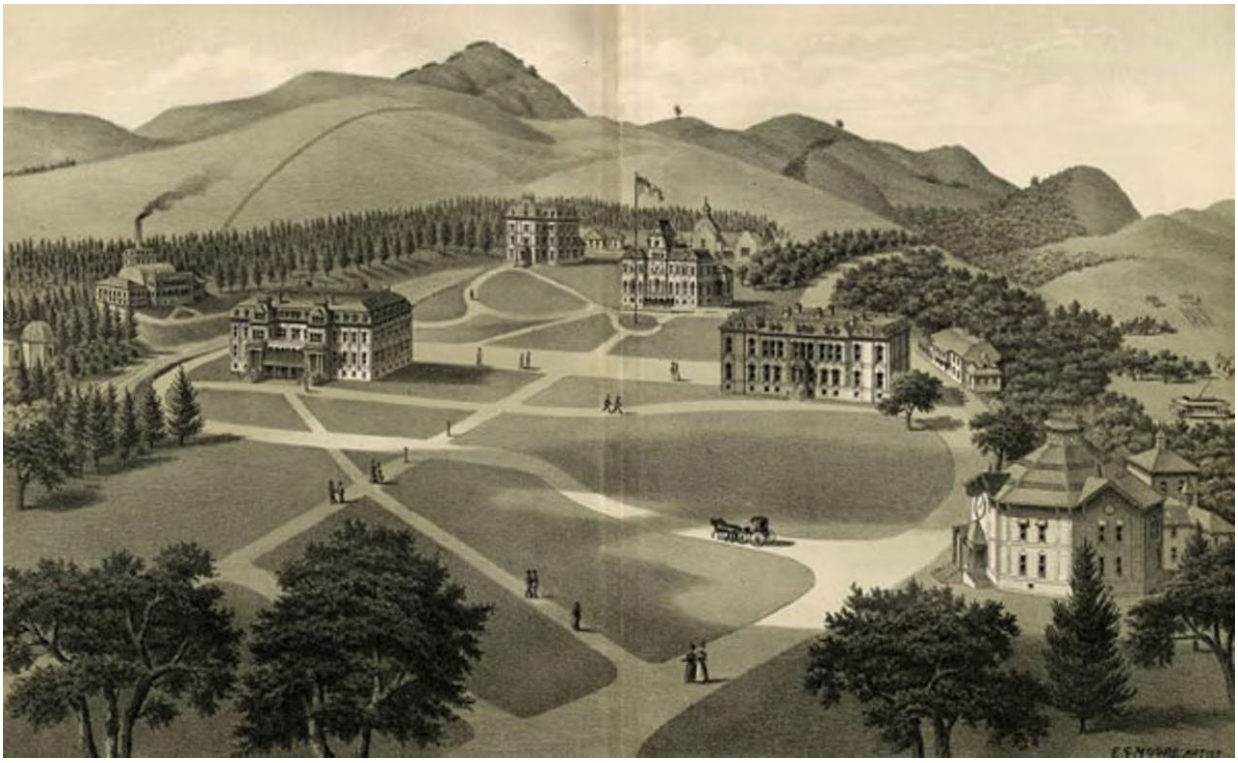


Figure 10: ca. 1890 illustration of the U.C. Berkeley campus (courtesy of the Berkeley Public Library).



Figure 11: 1880 photo of the corner of Shattuck Avenue and Dwight Way in Berkeley (Berkeley Public Library).

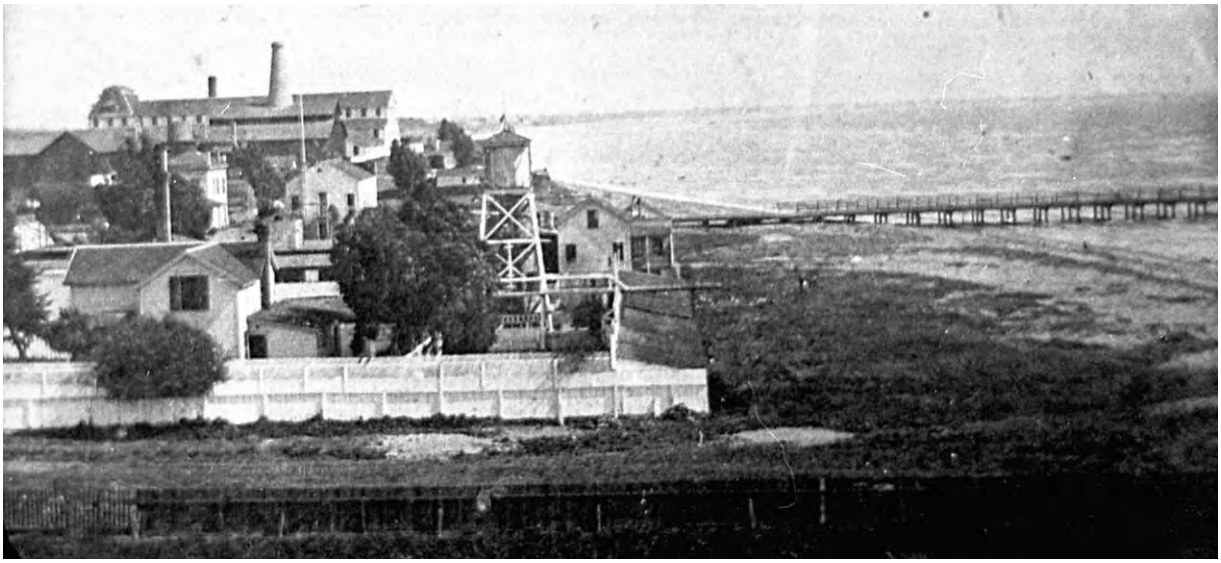


Figure 12: 1892 photo of the Standard Soap Company in the background of West Berkeley (courtesy of the Berkeley Public Library).

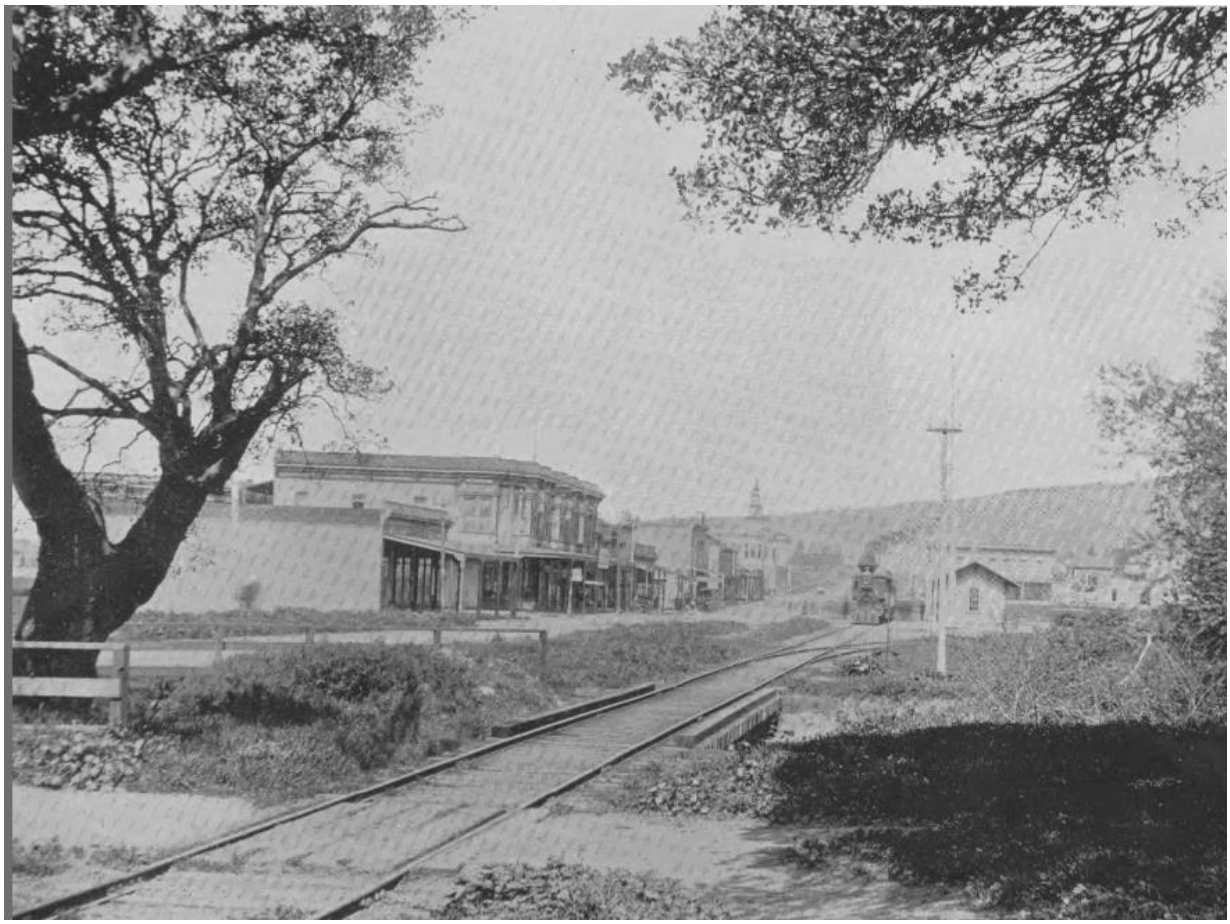


Figure 13: 1888 photo looking north along Shattuck Avenue with the Central Pacific rail line and the Berkeley Station at the right side of the photo (courtesy of the Berkeley Public Library).



Figure 14: ca. 1910 photograph of San Pablo Avenue, facing northeast (courtesy of UC Berkeley).



Figure 15: ca. 1925 photograph of the Key System and Berkeley sign at San Pablo Avenue and University Avenue (courtesy of Berkeley Public Library).

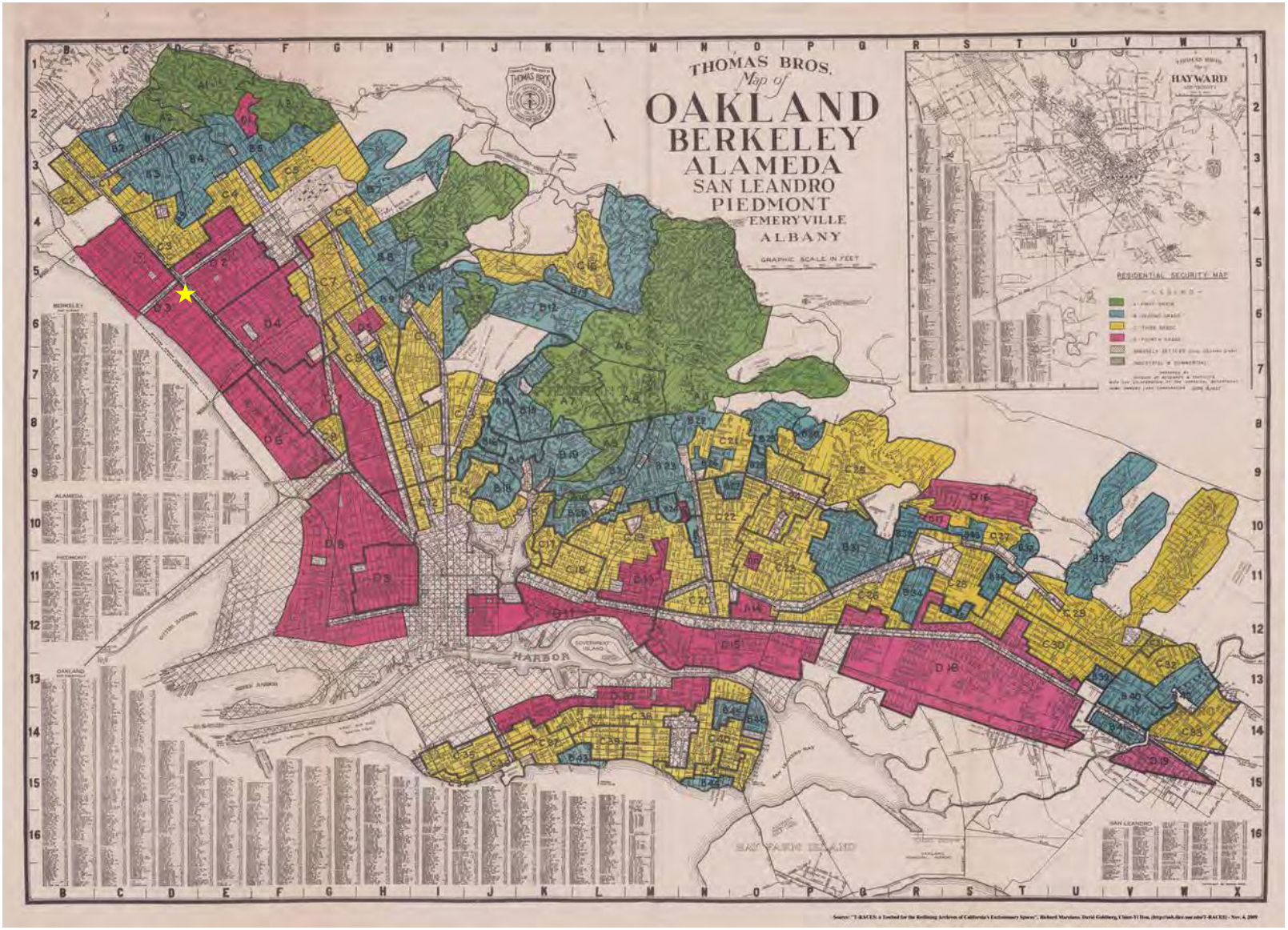


Figure 16: 1936 – 1939 Thomas Brothers map showing the redlining in Berkeley. Project Area indicated by the yellow star (Library of Congress).



Figure 17: 1964 photo of the "Free Speech Movement" leader Mario Savio (second from right) leading student protestors at the U.C. Berkeley (courtesy of the Oakland Museum of California).

RECORD SEARCH AND LITERATURE REVIEW

EDS completed a record search at the Northwest Information Center (NWIC) of the California Historical Resources Information Systems (CHRIS) to identify cultural resources previously recorded within or in the vicinity of the Project Area and the conditions and environments in which they are located; and completed a literature review of documents related to the history of the Project Area and its geoarchaeological setting to assess the potential/sensitivity for surficial or subsurface archaeological resources within the Project Area. The results of the record search and literature review are presented below.

NWIC RECORD SEARCH

Methods

EDS completed a record search at the NWIC on January 27, 2022 (NWIC File #21-1207), including a review of previous cultural resource studies and primary resource records pertaining to the Project Area and within 0.5-miles of the Project Area, as well as additional documentation of listed or eligible cultural resources located in the vicinity, including the following list of documents:

- Office of Historic Preservation (OHP) Built Environment Resource Directory (BERD) for Berkeley, Alameda County, California (OHP 2020) [3]
- OHP Archaeological Resource Directory for Alameda County, California (OHP 2012)[4]
- National Register of Historic Places (NRHP) (OHP 2020)
- California Register of Historical Resources (CRHR) (OHP 2020)
- California Inventory of Historic Resources (CIHR) (OHP 1976)
- California Historical Landmarks (CHL) (OHP 2022)
- California Points of Historical Interest (CPHI) (OHP 1992)
- Five Views: Ethnic Sites Survey for California (California DPR 1988)
- City of Berkeley Designated Landmarks, Structures of Merits and Historic Districts – updated April 2015 (City of Berkeley 2022)

Results – Previous Cultural Resource Studies

According to information on file at the NWIC, the Project Area has not been previously surveyed for cultural resources; however, there have been forty-one (41) previous cultural resources studies previously conducted within 0.5 miles of the Project Area, which are listed below in Table 1.

[3] The BERD contains information previously found within the Historic Properties Directory (HPD), and contains information regarding built environment cultural resources submitted to the OHP through one of its programs (Registration, Review and Compliance, Local Government Surveys, Architectural Review, etc.), as well as cultural resources listed on the CRHR, NRHP, CHL, and CPHI.

[4] Previously known as the Archaeological Determination of Eligibility (ADOE).

Table 1: Previous Cultural Resource Studies within the Project Area and within 0.5-Miles of the Project Area.

NWIC #	Year	Title	Author(s)/Affiliation
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

NWIC #	Year	Title	Author(s)/Affiliation
		[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

NWIC #	Year	Title	Author(s)/Affiliation
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

NWIC #	Year	Title	Author(s)/Affiliation
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

NWIC #	Year	Title	Author(s)/Affiliation
		[redacted]	[redacted]l Brandman Associates
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

NWIC #	Year	Title	Author(s)/Affiliation
		[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

Results – Previously Recorded Cultural Resources

According to information on file at the NWIC, there are no previously recorded cultural resources within the Project Area; [redacted] 16 built environment resources, and a historic streetscape. Eight of the built-environment resources are also listed in the OHP's BERD. These resources are detailed in Table 2 below, and a map of resource locations is provided in Figure 18. City of Berkeley locally listed historic resources are shown on the map in Figure 19.

Although not on file at the NWIC, the existing 1923 storefront commercial building within the Project Area was previously evaluated and documented on Department of Parks and Recreation (DPR) 523 forms (Hulbert 2019; Appendix B). The building is a single-story building with eight storefronts. It was designed in the Beaux Arts architectural style by architect William Edward Schirmer of Schirmer Bugbee & Co. and constructed by builder C. Texdahl in 1923, with several alterations occurring between 1923 and 1967 (Hulbert 2019). The building was found eligible for the CRHR under Criterion 3 (architecture), as "the largely intact, elongated façade and partially intact storefront designs are distinctive of their c1920 period" (Hulbert 2019:9).

In August 2020, Fran Cappelletti of Berkeley Architectural Heritage Association (BAHA) submitted a Landmark or Structure of Merit application (#LMIN2020-0004) for the 1923 storefront commercial building in accordance with the provisions of Berkeley Municipal Code (BMC) Section 3.24.120; and on October 6, 2020, the Landmarks Preservation Commission approved the listing of the building as a City Landmark. Therefore, the 1923 storefront commercial building currently meets the definition of a historical resource in accordance with 14 CCR §15064.5.

Table 2: Previously Recorded Cultural Resources within 0.5-miles of the Project Area.

Primary # (Trinomial or HRI Number)	Resource Type	Resource Description	Recorder(s) (Date)	CRHR/NRHP Eligibility
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Primary # (Trinomial or HRI Number)	Resource Type	Resource Description	Recorder(s) (Date)	CRHR/NRHP Eligibility
P-01-005274 (HRI 4701-0250-0000)	Historic streetscape	Delaware Streetscape, the portion of Delaware Street between 5th and 6th streets that conveys the "feel" of the West Berkeley settlement community of Ocean View (c. 1870-1900).	Berkeley Architectural Heritage Association (1978)	Appears CRHR and NRHP eligible
P-01-005275 (HRI 4701-0251-0000)	Historic built environment resource	Ca. 1979 Heywood Built House at 805 Delaware Street. The resource is listed as a City of Berkeley Landmark.	Berkeley Architectural Heritage Association (1978)	Appears CRHR and NRHP eligible
P-01-005277 (HRI 4701-0253-0000)	Historic built environment resource	Ca. 1879 Heywood Built House at 807 Delaware Street. The resource is listed as a City of Berkeley Landmark.	Ocean View Neighborhood Preservation Association (1978)	Appears CRHR and NRHP eligible
P-01-005278 (HRI 4701-0254-0000)	Historic built environment resource	Two ca. 1890 houses at 813 Delaware Street. The resource is listed as a City of Berkeley Landmark.	Ocean View Neighborhood Preservation Association (1978)	Appears CRHR and NRHP eligible
P-01-005279 (HRI 4701-0255-0000)	Historic built environment resource	Ca. 1890 one-story house at 816 Delaware Street. The resource is listed as a City of Berkeley Landmark.	Ocean View Neighborhood Preservation Association (1978)	Appears CRHR and NRHP eligible
P-01-005280 (HRI 4701-0256-0000)	Historic built environment resource	Three adjoining 1889 buildings (The West Berkeley Garden), including two residential units and a commercial building, at 817-21 Delaware Street.	Ocean View Neighborhood Preservation Association (1978)	unevaluated
P-01-005281 (HRI 4701-0257-0000)	Historic built environment resource	Ca. 1890 one-story house at 818 Delaware Street. The resource is listed as a City of Berkeley Landmark.	Ocean View Neighborhood Preservation Association (1978)	Eligible for the NRHP; listed in the CRHR
P-01-005282 (HRI 4701-0258-0000)	Historic built environment resource	1908 two-story commercial building (The Golden West Market) at 820-822 Delaware Street. The resource is listed as a City of Berkeley Landmark.	Ocean View Neighborhood Preservation Association (1978)	Appears CRHR and NRHP eligible
P-01-005671	Historic built environment resource	1913 Berkeley Southern Pacific Railroad depot at 700 University Avenue. The resource is listed as a City of Berkeley	Ward Hill (2003)	NRHP and CRHR eligible

Primary # (Trinomial or HRI Number)	Resource Type	Resource Description	Recorder(s) (Date)	CRHR/NRHP Eligibility
		Landmark.		
P-01-005955	Historic built environment resource	Ca. 1925 four-story commercial and multi-family building (U C Hotel) at 1040 University Avenue.	K.A. Crawford (2012)	Not eligible for NRHP; unevaluated for CRHR
P-01-010497	Precontact archaeological resource	Occupation site with human burials reported in 1948, and shell extending over an area of about 150 feet by 250 feet, as determined from surface observations in 2002. The site is listed in the Archaeological Resource Directory (OHP 2012).	Richard Schwartz (2002)	unevaluated
P-01-010658	Historic built environment resource	1958 commercial building at 720 University Avenue.	Ward Hill (2004)	Potential CRHR-eligible; unevaluated for NRHP
P-01-010683	Historic built environment resource	1946 commercial building at 2040 4th Street.	Ward Hill (2004)	Not eligible for CRHR; unevaluated for NRHP
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
P-01-010990	Historic built environment resource	Two-story commercial warehouse building at 2310 4th Street.	K.A. Crawford (2009)	Not eligible for NRHP; unevaluated for CRHR
P-01-011573	Historic built environment resource	Ca. 1950 two-story commercial building at 2001 4th Street.	Michael Himba (2014)	Not eligible for NRHP; unevaluated for CRHR
P-01-011640	Historic built environment resource	University Avenue Overcrossing (Bridge # 33-0023), built in 1939, and rebuilt in 1956 and 1998.	Ward Hill (2003)	Not eligible
P-01-011642	Historic built environment resource	1925 one-story commercial building at 824 University Avenue.	Michael Himba (2014)	Not eligible
P-01-011643	Historic built environment resource	1958 one-story commercial building at 810 University Avenue.	Michael Himba (2014)	Not eligible

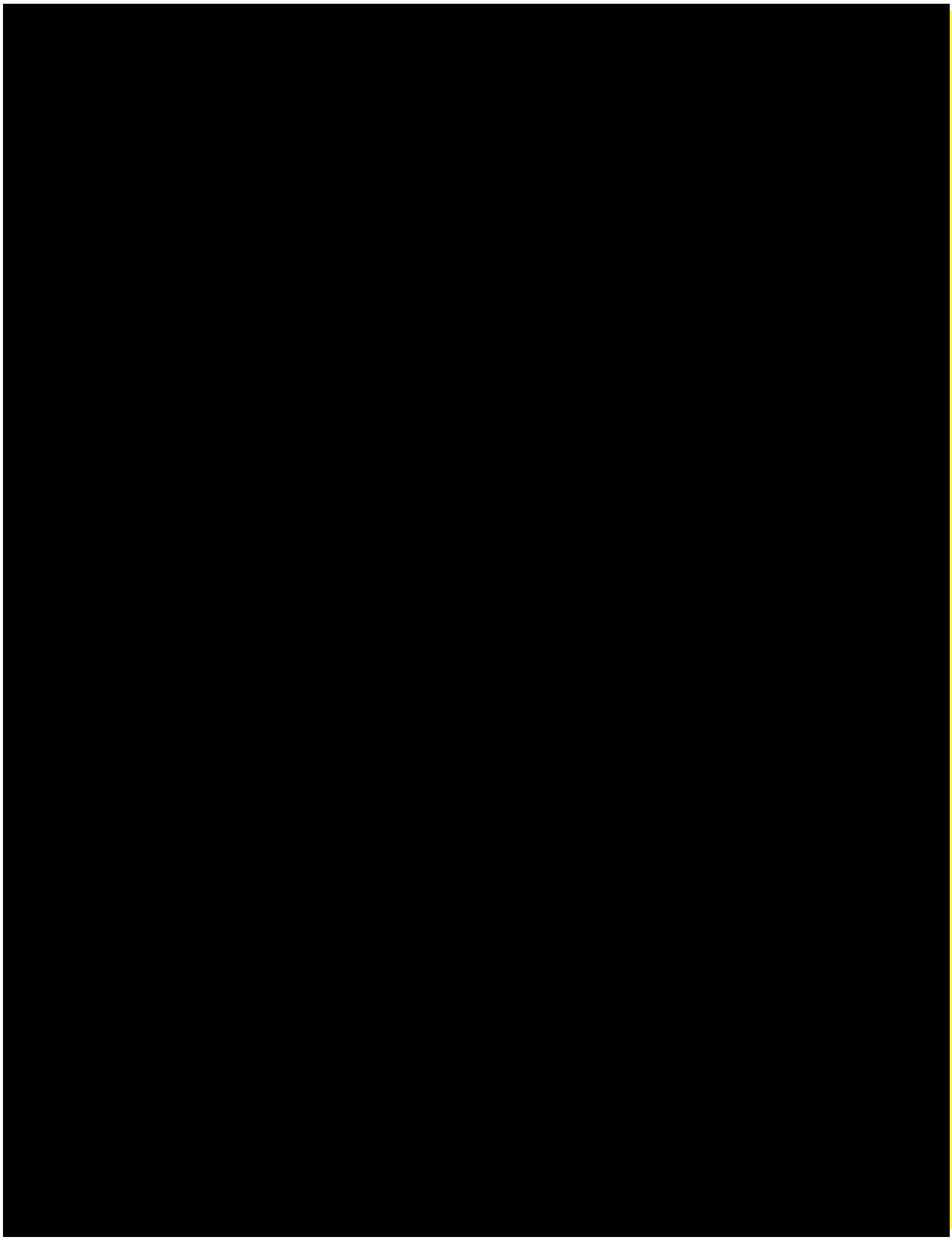


Figure 18: Map showing location of cultural resources within 0.5 miles of the Project Area, as identified in the NWC record search.

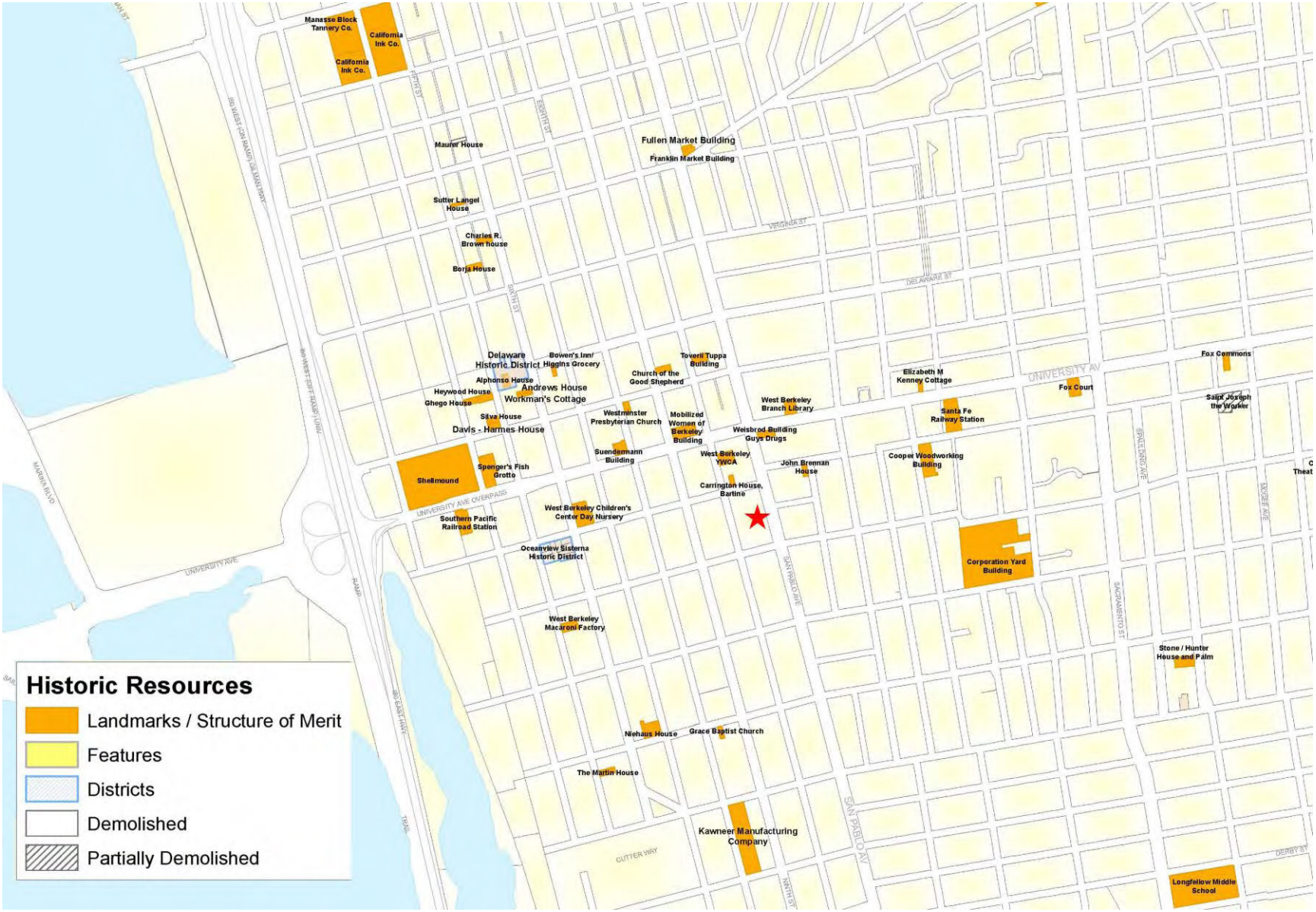


Figure 19: City of Berkeley locally listed historic resources (as of September 27, 2016) in the vicinity of the Project Area (red star).

PROJECT AREA HISTORY

EDS conducted a review of various historical maps, aerial photographs, and the DPR 523 forms previously prepared for the existing 1923 commercial building (Hulbert 2019; Appendix B) to develop a history of the Project Area to identify any important historical events associated with the Project Area, and to assess the potential/sensitivity for there to be historic-period archaeological resources within the Project Area. The following historical maps and aerial photographs were reviewed.

Resources Consulted

Historical Maps

- 1859 Plat of the Northern Part of the Rancho San Antonio confirmed to Vincente and Domingo Peralta
- 1878 Official Historical Atlas Map of Alameda County by Thompson & West
- 1888 Map of the City of Oakland and Surroundings by J.C. Henkenius
- 1895 USGS 15-minute San Francisco, Calif. quadrangle map
- 1911 Sanborn Fire Insurance Map, Volume 1, Sheet 76
- 1915 USGS 15-minute San Francisco, Calif. quadrangle map
- 1929 Sanborn Fire Insurance Map, Volume I, Sheet 58
- 1949 USGS 7.5-minute Oakland West quadrangle
- 1950 Sanborn Fire Insurance Map, Volume 1, 1911-June 1950, Sheet 58
- 1959 USGS 7.5-minute Oakland West quadrangle

Aerial Photographs

- 1931 aerial photograph, Flight C_1820, Frame 56, Scale 1:9,600
- 1939 aerial photograph, Flight C_5750, Frame 289-99, Scale 1:20,000
- 1946 Aerial photograph, Flight GS_CP, Frame 6-12, scale 1:23,600
- 1958 aerial photograph, Flight BUT_1958, Frame 13V-76, Scale 1:20,000
- 1965 Aerial photograph, Flight CAS_65_130, Frame 15-111, scale 1:12,000

Results

In 1873, early settlers of West Berkeley, John Everding and A.A. Rammelsburg, partnered with former U.C. Berkeley founder Henry Durant to create the Berkeley Land and Town Improvement Association to promote the development of West Berkeley. Local leaders soon laid out streets on a grid plan and promoted the new community as a profitable location for businesses. The 1878 map shows the Project Area in the southeastern portion of the new community of West Berkeley (Figure 20). According to the 1888 map, by this time, the Berkeley Ferry had been constructed at the western terminus of University Avenue, and the Project Area was within block 101 of the grid plan (Figure 21). By 1890, the Project Area was part of lots 13 through 19 of block 101 of the Allston Tract, first recorded in 1890 (Hulbert 2019), but did not contain any buildings at the time. Between 1890 and 1915, several commercial and residential buildings had been constructed in West Berkeley, including within block 101; however, the Project Area appears to have remained vacant during this time (Figure 22, Figure 23, and Figure 24).

According to Hulbert (2019), Lawrence Borg purchased lots 13 through 20 of block 101, including the Project Area, in May 1922 from two couples, Charles W. and Ruby M. Brock and Ray O. and Dora Bradley Long, and on January 24, 1923, Borg hired contractor C. Texdahl to construct the existing commercial storefront building within the Project Area. The building was designed as a "one-story reinformed concrete (8) store building" by Schirmer Bugnee & Co. (Hulbert 2019). A "Notice of Completion" of the building was filed with the Alameda County Assessor on June 19, 1923 (Hulbert 2019). Lawrence Borg was born on the Island of Malta in 1890 and immigrated to the U.S. in 1916, where he settled in San Francisco prior to moving to Alameda County and constructing the existing building within the Project Area (Ancestry.com 2002, 2014). Borg was in the moving picture theater industry and also owned and managed the Varsity Theater at 2024 San Pablo Avenue, one block north of the Project Area (Hulbert 2019). In December 1924, Borg transferred his ownership of the 1923 storefront commercial building to West Berkeley Theaters, Inc., a corporation where he served as vice president under the president, R.A. McNeil. In early 1925, the West Berkeley Theaters, Inc. deeded the building back to Borg, and in later that year, Borg deeded the property that includes the Project Area to Cecilia and Walter Hardman (Hulbert 2019). No information about Cecilia and Walter Hardman was found. By 1929, Borg had moved to the Salinas area where he owned the El Rey Theater, as well as interest in several businesses on Main Street in Salinas, including the Crystal Theater (The Californian 1954). Borg married Marjorie E. Fraser in 1943 and moved to San Mateo, where he died in 1954 following a long illness (Ancestry.com 2010, 2017). Subsequent owners of the Project Area include J.H. Gaskill in the late 1930s and George and Mary Pagones/the Pagones family/Nick Pagones from ca. 1958 to the early 2000s (Hulbert 2019).

The 1929 Sanborn Fire Insurance map shows the existing 1923 storefront commercial building within the Project Area, which at the time contained a bakery (Varsity Bakery) that remained until ca. 1930, and a paint and oils business that occupied the third and fourth storefronts in the northern half of the building, along with a front store and office that were likely associated with that (Hulbert 2019; Figure 25). The 1931, 1939, and 1946 aerial photographs (Figure 26, Figure 27, and Figure 28) and the 1950 Sanborn Fire Insurance map (Figure 29) show the 1923 storefront commercial building within a lot that does not appear to have any associated structures or landscaping at the time. However, the 1958 and 1965 aerial photographs show at least one structures located behind the building (Figure 30 and Figure 31).

Tenants within the 1923 storefront commercial building have included a barber (1928); a liquor store and a tailor (1943); a restaurant (1943-1962); Andy's Outboard Center (1950); Industrial Installers (1950-1962); Mercurio Bros. Printing (1950); Lucky Dog Pet Shop (1950-2010); Steppenwolf bar/night club (1958 – 1970s); The Scarab (1986); Al Body Shop (1986); The Sink Factory (1986-present); Dons Auto Service (1986-2006); TD Garage (2013 present); and West Wind Kung-Fu Karate and Boxing (2015-present) (Hulbert 2019; Partner Engineering and Science, Inc. 2018).

[redacted]

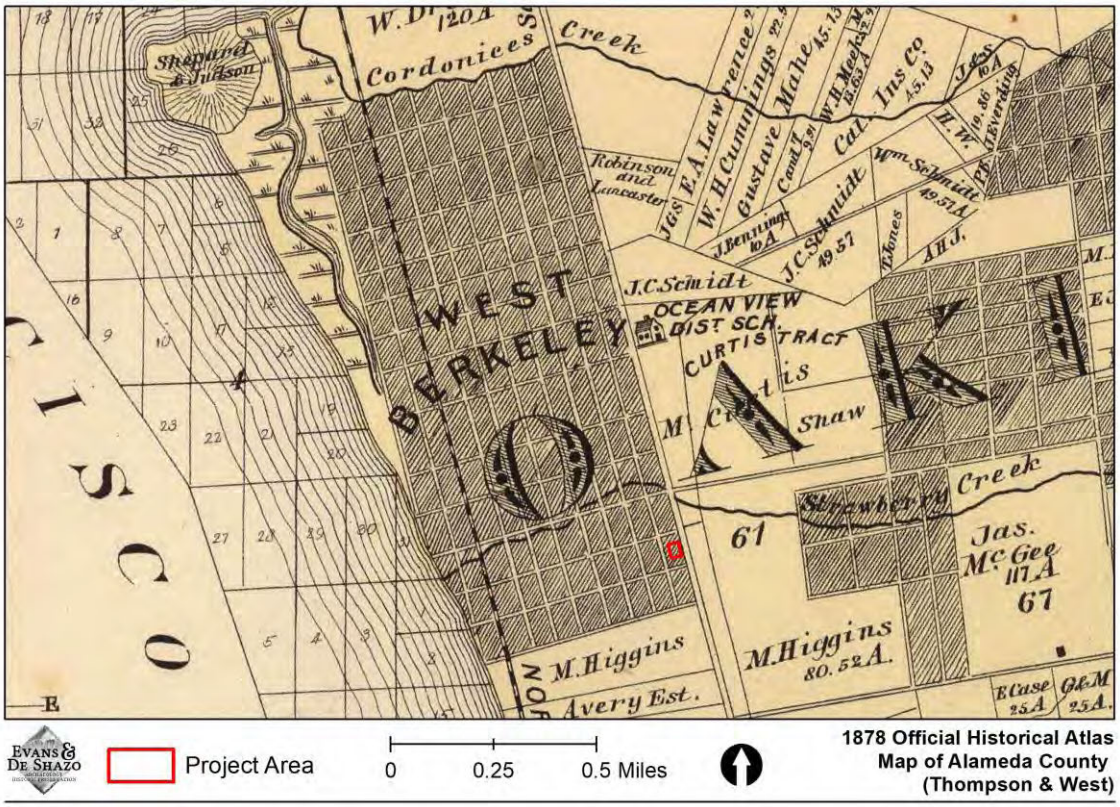


Figure 20: Project Area shown on the 1878 Official Atlas Map of Alameda County.

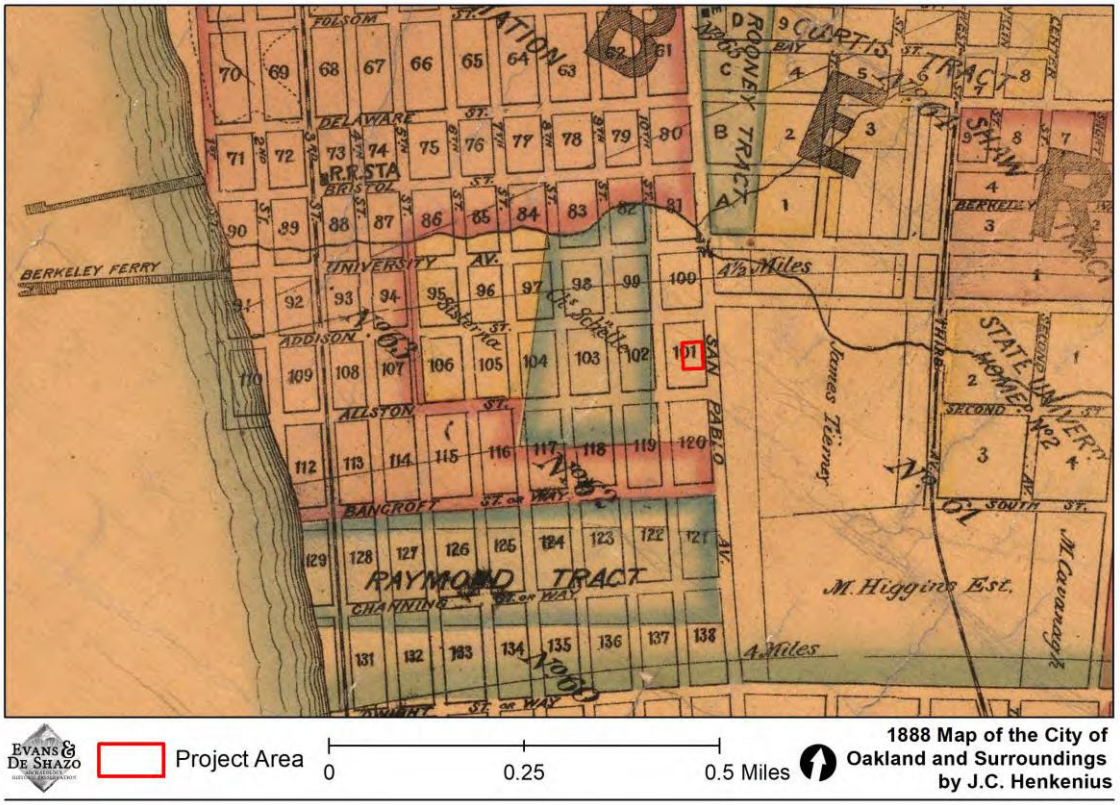


Figure 21: Project Area shown on the 1888 Map of Oakland and Surroundings.



Figure 22: Project Area shown on the 1895 USGS 15' San Francisco quadrangle.

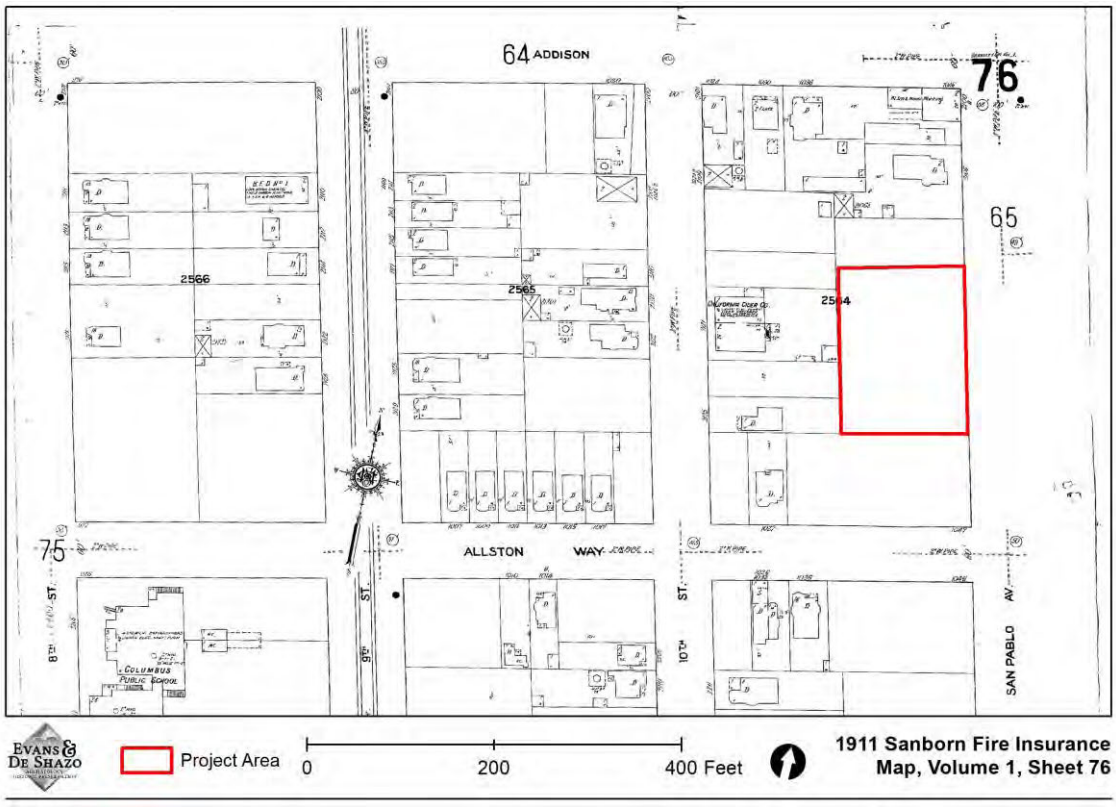


Figure 23: Project Area shown on the 1911 Sanborn Fire Insurance map.



Figure 24: Project Area shown on the 1915 USGS 15' San Francisco quadrangle.

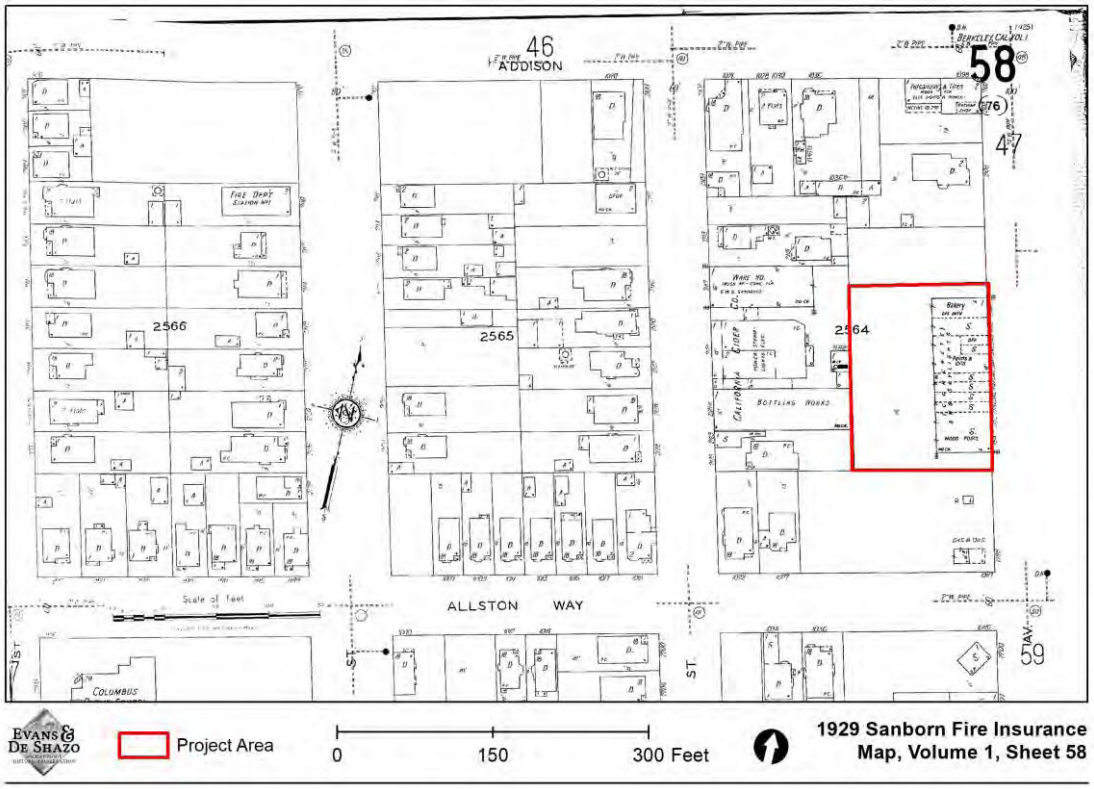


Figure 25: 1929 Sanborn Fire Insurance map showing the existing 1923 storefront commercial building within the Project Area.



Figure 26: 1931 aerial photograph showing the 1923 storefront commercial building within the Project Area.



Figure 27: 1939 aerial photograph showing the 1923 storefront commercial building within the Project Area.



Figure 28: 1946 aerial photograph showing the 1923 storefront commercial building within the Project Area.

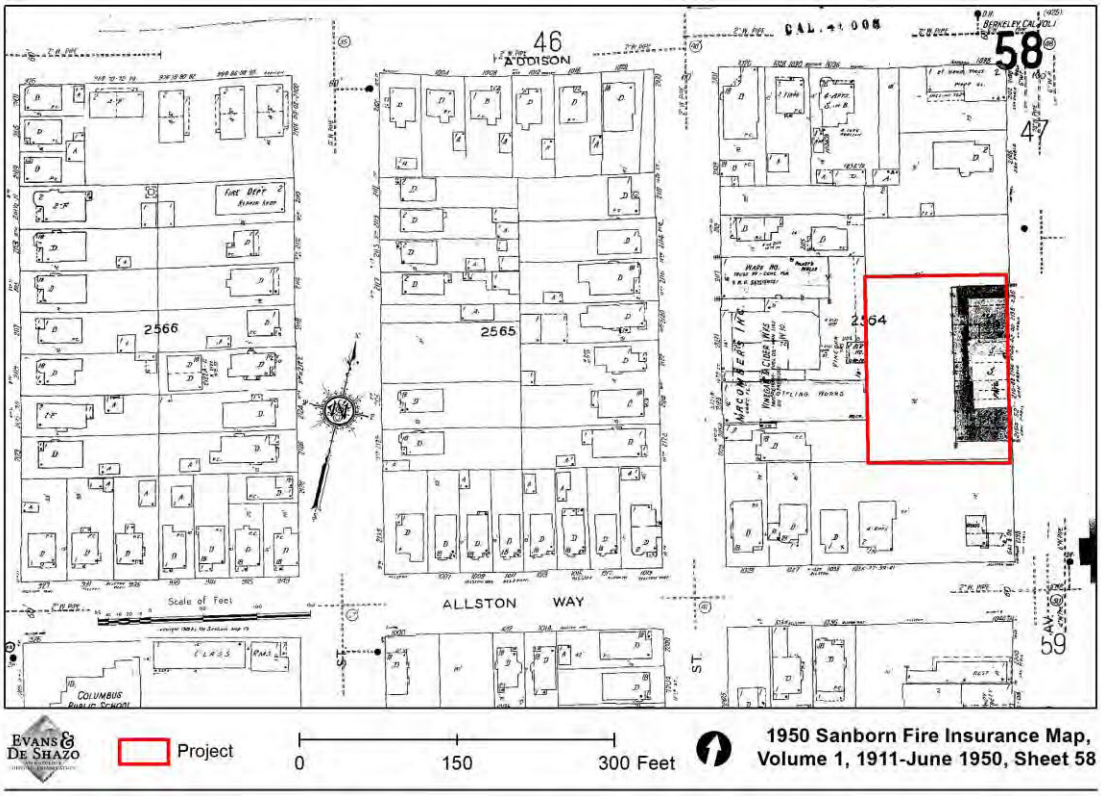


Figure 29: 1950 Sanborn Fire Insurance map showing the existing 1923 commercial building within the Project Area.



Figure 30: 1958 aerial photograph showing the 1923 storefront commercial building within the Project Area.



Figure 31: 1965 aerial photograph showing the 1923 storefront commercial building within the Project Area.

GEOARCHAEOLOGICAL ANALYSIS

EDS reviewed regional geological and soil/sediment studies in the region (see the previous section: Environmental Setting), as well as two regional geoarchaeological studies (Meyer and Rosenthal 2007; Meyer and Kaijankoski 2017) that focus on landform evolution and the potential/sensitivity for encountering archaeological resources using a predictive model that incorporates soil/sediment deposits, geologic and geomorphic formations, environmental setting, and other attributes.

Understanding soils and their development is fundamental in archaeology and geoarchaeology because soils can inform the researcher how to reconstruct past environmental and climatic conditions (Rapp and Hill 2006:41) and provide evidence of past human activity (Goldberg and Macphail 2006:42). Many older land surfaces often contain buried soils, also known as paleosols. Landforms that exhibit evidence of soil formation, or paleosols, are expected to have a higher potential for containing archaeological resources than those that lack evidence of soil formation because people are attracted to stable surfaces, which retains the evidence of occupation (Scher 2012:9). Furthermore, certain landforms, such as alluvial fans, floodplains, and areas along rivers and streams, are more likely to contain buried Native American archaeological sites (Meyer and Rosenthal 2007). Other environmental factors can also increase or decrease the potential for buried Native American archaeological resources, including slope, proximity to a water source,[5] and nature of the water source (perennial and/or primary drainage of a watershed versus minor and/or first-order drainages)[6] (Byrd et al. 2012). According to Meyer and Rosenthal (2007:15), most Holocene-age landforms, such as alluvial fans, floodplains, and areas along rivers and streams, have the potential for buried sites because they formed during or after the time people first occupied the region (Meyer and Rosenthal 2007:15). Furthermore, precontact period archaeological sites have been identified in alluvial fans throughout the region, including in Alameda County, most of which date to the Middle and Late Holocene, between 6,290 and 2,585 cal BP (Meyer and Rosenthal 2007:20-22).

Results

[redacted]

[5] A water source within a distance of 200 meters (650 feet) increases the potential for buried Native American archaeological resources to be present (Byrd et al. 2012).

[6] Precontact period occupation sites tend to be associated with level or nearly level landforms that occur near streams and stream confluences, especially where at least one stream is perennial (Pilgram 1987:44-47), as such, many buried sites are located in areas subject to periodic flooding and sediment deposition due to the combination of low-lying topography and active water sources (Byrd et al. 2012).

[7] Calibrated (cal) years before present (BP).

[redacted]

SACRED LANDS INVENTORY AND TRIBAL CONSULTATION

A Sacred Lands inventory request was sent by electronic mail (email) to the NAHC on January 18, 2022, to inquire about listed Sacred Sites located within or near to the Project Area and to obtain a list of local Native American tribes who may have additional information about Sacred Sites, Traditional Cultural Resources, or other properties of traditional religious and cultural importance located within or near to the Project Area. The NAHC works to identify, catalogue, and protect places of special religious or social significance, graves, and cemeteries of Native Americans per the authority given in PRC §5097.9.

RESULTS OF SACRED LANDS INVENTORY

[redacted]

TRIBAL CONSULTATION

The NAHC provided a list of eleven (11) Native American tribal contacts, which was provided to the City of Berkeley (CEQA lead agency). In accordance with PRC §21080.3.1, on February 10, 2022, a letter and Project maps were sent via U.S.P.S. certified mail to each of the tribal representatives to provide formal notification of the Project and the opportunity to request consultation. The following individuals were contacted:

Table 3: Native American tribes contacted.

Tribes	Tribal Contacts
Amah Mutsun Tribal Band of Mission San Juan Bautista	Irenne Zwierlein, Chairperson
Costanoan Rumsen Carmel Tribe	Tony Cerda, Chairperson
Guidiville Indian Rancheria	Donald Duncan, Chairperson
Indian Canyon Mutsun Band of Costanoan	Ann Marie Sayers, Chairperson Kanyon Sayers-Roods, MLD Contact
Muwekma Ohlone Indian Tribe of the San Francisco Bay Area	Monica Arellano

North Valley Yokuts Tribe	Katherine Perez, Chairperson Timothy Perez, MLD Contact
The Ohlone Indian Tribe	Andrew Galvan
Wuksache Indian Tribe/Eshom Valley Band	Kenneth Woodrow, Chairperson
The Confederated Villages of Lisjan	Corrina Gould, Chairperson

As of the date of this report, one response has been received, including a response from Corrina Gould, Tribal Chair of the Confederated Villages of Lisjan (see details below).

All correspondence with the NAHC and Native American individuals and tribes is included in Appendix A.

The Confederated Villages of Lisjan

On February 13, 2022, a response was received via email from Corrina Gould, Tribal Chair of the Confederated Villages of Lisjan Tribe. Ms. Gould requested additional information about the Project Area, including the results of the Sacred Lands inventory, prior to requesting formal consultation. On February 15th, Ms. Evans responded via email and provided the results of the Sacred Lands inventory, as well as information related to the results of the NWIC record search. On February 15th, Ms. Gould responded via email, with Sharon Gong, Principal Planner with the City of Berkeley, in copy, requesting formal consultation on the Project. On March 9th, Ms. Gong sent an email acknowledging the request for consultation and stating that the City would wait 30 days to provide the opportunity for other tribes to respond before setting up a meeting for all interested tribes. On March 9, 2021, Ms. Gould sent a follow-up email requesting that the meeting be held separately from meetings that may be held with the other tribes contacted about the Project.

A virtual meeting was held on March 23, 2022 with Ms. Gould, Ms. Evans, and Ms. Gong. During the meeting, Ms. Gould was provided with the Project information, as well as information related to the CRS, including the results of the NWIC record search and sensitivity analysis, and preliminary recommendations. Based on the information provided, Ms. Gould recommended the completion of a Ground Penetrating Radar (GPR) study to inspect the Project Area for buried precontact period archaeological resources, and requested a copy of the GPR report after the GPR survey was completed. A GPR study was completed on June 30th and Ms. Gong provided the report (see Appendix C) to Ms. Gould via email on July 21st, as well as updated recommendations for the Project based on the negative findings of the GPR study. On August 24th, Ms. Gould sent an email to Ms. Gong stating that the Tribe is in agreement with the revised recommendations for the Project and that no further consultation on the Project is needed, thus concluding the tribal consultation with the Confederated Villages of Lisjan.

PEDESTRIAN FIELD SURVEY

SURVEY DESCRIPTION AND METHODS

A field survey of the Project Area was completed by EDS Archaeologist Alex Coburn on February 23, 2022. The 0.53-acre Project Area is relatively level and currently contains a single-story storefront commercial building constructed in 1923, an improved gravel parking lot, a metal cargo storage container, a canopy automotive repair area, and limited landscaping (Figure 32 through Figure 36).

The methods used to complete the field survey included east/west-oriented transects spaced approximately three meters apart and a focused inspection with a trowel of all areas where soil is exposed. The soil observed within the Project Area and below gravel within the parking lot consists of brown to dark brown sandy clay.

SURVEY RESULTS

No prehistoric or historic-period artifacts or other indications of an archaeological resource was observed in the Project Area; however, the surface visibility was limited by the presence of the 1923 storefront commercial buildings and gravel parking lot.



Figure 32: South and east facades of the 1923 storefront commercial building, facing north.



Figure 33: Western portion of the Project Area, facing northeast.



Figure 34: Western portion of the Project Area, facing north/northwest.



Figure 35: Western portion of the Project Area, facing south.



Figure 36: Northwest corner of the Project Area, facing north/northwest.

GROUND-PENETRATING RADAR (GPR) SURVEY

A GPR survey of the Project Area was completed at the request of the Corrina Gould, Tribal Chair of the Confederated Villages of Lisjan Tribe and due to the moderate potential/sensitivity for buried precontact period archaeological resources to be located with the Project Area. The purpose of the study was to identify and delineate potential archaeological features not visible on the ground surface. The GPR survey was completed by Scott Byram, Ph.D. of Byram Archaeological Consulting, LLC on June 13, 2022. Mr. Byram also prepared a report that includes a summary of the findings, a survey area map showing all GPR grids, and enlargements of slice maps of the subsurface conditions. The GPR report is attached as Appendix C.

The GPR survey revealed evidence of buried utility trenches, as well as shallow, rubble-filled pits, likely relating to pothole repair or possibly filling of refuse pits. In addition, one possible concrete pad was observed beneath existing gravel that may have been for a small storage shed or similar surface structure. The GPR survey did not result in the identification of any precontact period resources such as stacked layers typical of Native shell mounds and middens. Organic soils that could contain house pits, graves, earth ovens and similar features were not indicated in the radar data.

CONCLUSIONS

EDS completed a CRS of the Project Area in support of an Initial Study and focused EIR in accordance with CEQA Guidelines Section 15183.3 to identify historical resources, including archaeological resources within the Project Area that could be impacted by the proposed Project. The study included a records search; a literature review to determine past land use activities within the Project Area and the potential/sensitivity for buried historic-period archaeological, as well as researching for any important historical events associated with the Project Area; a review of geologic, soils, and geoarchaeological information to assess the potential/sensitivity for buried Native American archaeological resources; a Native American Sacred Lands inventory and Tribal consultation; and a pedestrian survey. In addition, EDS retained Byram Archaeological Consulting, LLC to complete a GPR to inspect the Project Area for buried archaeological resources (see Appendix C).

The CRS and the GPR survey did not result in the identification of any surficial or buried archaeological resources within the Project Area; however, the existing 1923 storefront commercial building was previously evaluated by Historic Architect Mark Hulbert and found to be eligible for listing on the CRHR under Criterion 3 (architecture). As such, in August 2020, Fran Cappelletti of Berkeley Architectural Heritage Association (BAHA) submitted a Landmark or Structure of Merit application (#LMIN2020-0004) for the building in accordance with the provisions of Berkeley Municipal Code (BMC) Section 3.24.120; and on October 6, 2020, the Landmarks Preservation Commission approved the listing of the building as a City Landmark. Due to its CRHR-eligibility and local listing, the 1923 storefront commercial building is considered to be a historical resource in accordance with 14 CCR §15064.5.

According to PRC §21084.1, a project that may cause a substantial adverse change in the significance of an historical resource is project that may have a significant effect on the environment; therefore, demolition of the 1923 storefront commercial building would constitute a significant and unavoidable impact to a historical resource. As such, a focused EIR is being completed in accordance with CEQA to

evaluate the potentially significant impacts on the historical resource and to identify feasible mitigation for those effects.

RECOMMENDATIONS

EDS has provided the following recommendations based on the results of the CRS and GPR survey and in consultation with interested Native American tribes. These recommendations are provided pursuant to CEQA guidelines and the potential inadvertent discovery of buried archaeological resources during Project-related ground-disturbing activities.

1. **Cultural Resource Awareness Training**. EDS recommends that prior to commencement of Project-related, ground-disturbing activities, that project supervisors, equipment operators, and other members of the construction team overseeing or conducting ground-disturbing activities are familiarized with the types of archaeological resources that could be encountered during ground-disturbing activities and the procedures to follow if subsurface archaeological resources are unearthed during construction. To accomplish this, a Secretary of Interior qualified archaeologist shall conduct one or more preconstruction Cultural Resource Awareness Trainings as needed to familiarize supervisors, contractors, and equipment operators with the potential to encounter archaeological resources, the types of archaeological material that could be encountered, and procedures to follow if archaeological deposits and/or artifacts are encountered during construction.

2. **Stop Work if Archaeological Resources Are Discovered During Ground-Disturbing Activities.** If an archaeological deposit is encountered during Project-related, ground-disturbing activities, all work within 50 feet of the discovery shall be redirected until the archaeologist assesses the find, consults with agencies as appropriate, and makes recommendations for the treatment of the discovery. If avoidance of the archaeological deposit is not feasible, the archaeological deposit shall be evaluated for its eligibility for listing in the CRHR. If the deposit is found to be eligible, adverse effects shall be mitigated. Mitigation may include excavation of the archaeological deposit in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation that may include data recovery using standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and a technical data recovery report at a curation facility. Upon completion of the assessment, the archaeologist shall prepare a report to document the methods and results of the assessment. The report shall be submitted to the Project applicant, City of Berkeley, and the NWIC upon completion of the resource assessment. It is anticipated that the implementation of this recommendation will reduce or eliminate adverse impacts to archaeological resources if discovered during construction.

3. **Potential Discovery of Human Remains.** If human remains are encountered within the Project Area during Project-related ground-disturbing activities, all work must stop within 100-feet of the discovery area, the area shall be secured to prevent further disturbance, and the Alameda

County Coroner must be notified immediately. It is very important that the suspected human remains, and the area around them, are undisturbed and the proper authorities are called to the scene as soon as possible, as it could be a crime scene. The coroner will determine if the remains are precontact period Native American remains or of modern origin and if there are any further investigation by the coroner is warranted. If the remains are suspected to be those of a precontact period Native American, the coroner shall contact the NAHC by telephone within 24-hours. The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the remains. The MLD has 48-hours to make recommendations to the landowner for treatment or disposition of the human remains. If the MLD does not make recommendations within 48-hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner does not accept the descendant's recommendations, the owner or the descendant may request mediation by NAHC. According to the California Health and Safety Code, six or more human burials at one location constitutes a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052). An archaeologist should also be retained to evaluate the historical significance of the discovery, the potential for additional remains, and to provide further recommendations for treatment of the site in coordination with the MLD.

REFERENCES CITED

Ancestry.com

2002 *1930 United States Federal Census* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc.

2010 *California, U.S., San Francisco Area Funeral Home Records, 1895-1985* [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc.

2014 *California, U.S., Federal Naturalization Records, 1843-1999* [database on-line]. Lehi, UT, USA: Ancestry.com Operations, Inc.

2017 *California, U.S., County Birth, Marriage, and Death Records, 1849-1980* [database on-line]. Lehi, UT, USA: Ancestry.com Operations, Inc.

Archives and Architecture, LLC

2015 Shattuck Avenue Commercial Corridor Historic Context and Survey, City of Berkeley.

Beardsley, R. K.

1954 Temporal and Areal Relationships in Central California Archaeology. *University of California Archaeological Survey Reports* 24: 24-25.

Beck, Warren and Ynez D. Haase

1974 *Historical Atlas of California*. University of Oklahoma Press.

Berkeley Historical Society

2010 As I Knew it in The Early Days. *Exactly Opposite* (Vol. 28; No. 22).

Broughton, Jack M.

1994 Declines in Mammalian Foraging Efficiency during the Late Holocene, San Francisco Bay, California. *Journal of Anthropological Archaeology* 13: 371-401.

Byram, Scott

2022 Archaeological Ground-Penetrating radar Survey at 2136-2154 San Pablo Avenue, Berkeley, California. Prepared by Byram Archaeological Consulting, LLC, El Cerrito, California.

Byrd, Brian F., John E. Berg, and Philip Kaijankoski

2012 Archaeological Investigations for the State Route 82 Intersection Modification Project, San Mateo County, California. Confidential record on file at the Northwest Information Center, Rohnert Park, California.

Byrd, Brian F., and Adrian R. Whitaker, Patricia J. Mikkelsen, and Jeffery S. Rosenthal

2017 San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4. Office of Cultural Resource Studies, California Department of Transportation District 4, Oakland, California.

California Department of Parks and Recreation

1988 *Five Views: An Ethnic Sites Survey for California*. First edition.

California Secretary of State

2020 Spanish and Mexican Land Grans, 1855-1875. Electronic document, https://www.sos.ca.gov/archives/collections/ussg/.

Campagne, Cody

2022 Letter dated February 2, 2022 from the Native American Heritage Commission (NAHC) with results of Sacred Lands Inventory for 2136-2154 San Pablo Avenue, Alameda County, Sacramento, California.

Charbonneau, Bob, and Stephanie Kaza, and Vincent Resh

1990 History of Strawberry Canyon. U.C. Berkeley.

City of Berkeley

2022 City of Berkeley Designated Landmarks. Electronic document, https://www.cityofberkeley.info/Planning_and_Development/Home/Landmarks_Preservation_Commission.aspx. Accessed February 2022.

Clay, Karen

1999 Property Rights and Institutions: Congress and the California Land Act 1851. The Journal of Economic History, 59(01):122-142.

Cook, Sherburne F.

1943 *The conflict Between the California Indians and White Civilization, I: The Indian Verses the Spanish Mission*. Ibero-Americana No. 21. University of California, Berkeley.

Elsasser, A. B.

1978 Development of regional prehistoric cultures. In *Handbook of North American Indians*, Vol. 8: California. R.F. Heizer, ed. Pp. 37-58. Washington, D.C.: Smithsonian Institution.

Fitzgerald, Richard

1993 Archaic Milling Cultures of the Southern San Francisco Bay Region, edited by Gary S. Breschini and Trudy Haversat. Coyote Press Archives of California Prehistory No. 35. Coyote Press, Salinas, California.

Font, Pedro

1930 Font's Complete Diary of the Second Anza Expedition. In *Anza's California Expedition Volume IV*. Herbert E. Bolton, ed. Pp. 97-112. Berkeley: University of California Press.

Friends of Peralta Hacienda Historical Park

2020 Peralta Family History. Electronic document, peraltahacienda.com.

Galvin, John (editor)

1971 *The First Spanish Entry into San Francisco Bay 1775*. John Howell Books, San Francisco.

Goldberg, Paul, and Richard I. Macphail

2006 *Practical and Theoretical Geoarchaeology*. Blackwell Publishing Science Ltd. Oxford, United Kingdom; MA, USA; and Victoria, Australia.

Graymer, R. W.

2000 Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California.

Hacienda Peralta Historical Park

2020 Hacienda Peralta Historical Park. Electronic document, http://www.peraltahacienda.org.

Harrington, John P.

1921 Chochenyo Field notes. In *Survey of California Indian Languages*. Berkeley: University of California, Department of Linguistics.

Heizer, Robert F.

1938 A Folsom Type Point from Sacramento Valley. The Masterkey 12(5):180-182.

1978 California. *Handbook of North American Indians*, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

Heizer, R. F., and A. B. Elsasser

1980 *The Natural World of the California Indians*. Berkeley: University of California Press.

Hildebrandt, W. R., and T. L. Jones

1992 Evolution of Marine Mammal Hunting: A View from the California and Oregon Coasts. *Journal of Anthropological Archaeology* 11:360-401.

Hildebrandt, William, Jack Meyer, Julia Costello, Patricia Mikkelsen, and John Berg

2012 Survey and Extended Phase I Investigations for the Solano 80 Corridor Project, Solano County, California. Far Western Anthropological Research Group, Inc., Davis, California. Submitted to California Department of Transportation, District 4, Oakland, California.

Hulbert, Mark

2019 Department of Parks and Recreation (DPR) 523A and 523L forms for 2136-2154 San Pablo Avenue.

Hylkema, Mark

2002 Tidal Marsh, Oak Woodlands, and Cultural Florescence in the Southern San Francisco Bay Region. In *Catalysts to Complexity: Late Holocene Societies of the California Coast*. J. M. Erlandson and T. L. Jones, eds. Pp. 233-262. Los Angeles: University of California Institute of Archaeology.

Ingram, B. Lynn

1998 Differences in Radiocarbon Age between Shell and Charcoal from a Holocene Shellmound in Northern California. Quaternary Research 49: 102-110.

Kroeber, A. L.

1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, D.C.

Levy, Richard

1978 Costanoan. In *Handbook of North American Indians*, Vol. 8: California. R.F. Heizer, ed. Pp. 485-495. Washington, D.C.: Smithsonian Institution.

Lightfoot, Kent G., and Edward M. Luby

2002 Late Holocene in the San Francisco Bay Area: Temporal Trends in the Use and Abandonment of Shell Mounds in the East Bay. In Catalysts to Complexity: Late Holocene Societies of the

California Coast. Edited by J.M. Erlandson and T.L. Jones, pp. 263-281. Institute of Archaeology, University of California, Los Angeles.

Meighan, Clement W., and C. Vance Haynes

1970 The Borax Lake Site Revisited. *Science* 167(3922):1213-1221.

Meyer, Jack

2015 Phase II Archaeological Testing and Evaluation of Site P-01-011556 (Fremont Site) for the PG&E Line 107 Project, Alameda County, California. Far Western Anthropological Research Group, Inc., Davis, California. Submitted to Pacific Gas & Electric Company, San Ramon, California.

Meyer, Jack and Jeffrey Rosenthal

1997 Archaeological and Geoarchaeological Investigations at Eight Prehistoric Sites in the Los Vaqueros Reservoir Area, Contra Costa County. In Los Vaqueros Project Final Report. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Submitted to the Contra Costa Water District, Concord. On file, Northwest Information Center, Sonoma State University, Rohnert Park, California.

1998 An Archaeological Investigation of Artifacts and Human Remains from CA-CCO-637, Los Vaqueros Project Area, Contra Costa County, California. Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Submitted to Contra Costa Water District, Concord, California.

2007 Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4. Report on file at the Northwest Information Center, Rohnert Park, California.

Meyer, Jack, and Philip Kaijankoski

2017 Discovering Sites: Geoarchaeological Approaches to Site Sensitivity and Predictive Modeling. In San *Francisco Bay-Delta regional context and Research Design for Native America Archaeological Resources, Caltrans District 4.* Submitted to the California Department of Transportation, District 4, Oakland.

Milliken, Randall

1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1969-1810*. Menlo Park, California: Balena Press.

Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillette, Viviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson

2007 Punctuated Cultural Change in the San Francisco Bay Area. In *California Prehistory*. Terry L. Jones and Kathryn A. Klar eds. Pp. 99-123. New York: AltaMira Press.

Moratto, Michael

1984 *California Archaeology*. Academic Press, Inc., Orlando, Florida.

2002 Culture History of the New Melones Reservoir Area, Calaveras and Tuolumne Counties, California. In Essays in California Archaeology: A Memorial to Franklin Fenenga, edited by William J. Wallace and Francis A. Riddell, pp. 25–54. Contributions to the University of California Archaeological Research Facility 60. University of California Press, Berkeley.

Morgan, Sally S., and Sean D. Dexter

2008 San Francisco-Oakland Bay Bridge East Span Seismic Safety Project, Archaeological Analysis of CA-SFR-04/H, Yerba Buena Island, San Francisco & Alameda Counties, California. Report prepared for California Department of Transportation, Toll Bridge Program, District 4 Oakland.

Office of Historic Preservation

1976 California Inventory of Historic Resources. State of California Resource Agency, Department of Parks and Recreation.

1992 California Points of Historical Interest. California Department of Parks and Recreation, Sacramento, California.

2012 Archaeological Resource Directory, Alameda County, dated 4/5/2012. Confidential list on file at the Northwest Information Center, Rohnert Park, California.

2020 Built Environment Resource Directory (BERD) for Alameda County. Electronic document, https://ohp.parks.ca.gov/?page_id=30338.

2022 California Historical Landmarks by County. https://ohp.parks.ca.gov/?page_id=21387.

Olmsted, Nancy

1986 Vanished Waters: A History of San Francisco's Mission Bay. Mission Creek Conservancy, San Francisco.

Partner Engineering and Science, Inc.

2018 Phase I Environmental Site Assessment Report, 2136-2154 San Pablo Avenue, Berkeley, California, 94702. Prepared by Partner Engineering and Science, Inc., Torrance, California.

Peak, Ann, and T.F. Weber

1978 Archaeological Investigations at the Wolfsen Mound, CA-Mer-215, Merced County, California. On file at the Central California Information Center, California Historical Resources Information System, California State University, Stanislaus, California.

Rapp, George (Rip), and Christopher L. Hill

2006 *Geoarchaeology: The Earth Science Approach to Archaeological Interpretation* (Third edition). Yale University Press, New Haven, Connecticut and London.

Rockridge Geotechnical

2019 Geotechnical Investigation Proposed Mixed-Use Building, 2136-2154 San Pablo Avenue, Berkeley, California. Rockridge Geotechnical, Oakland, California.

Scher, Naomi

2012 Extended Phase One Geoarchaeological Study for the State Route 85 Proposed Freeway Performance Initiative Project, Santa Clara County, CA. Anthropological Studies Center, Sonoma State University, Rohnert Park, California.

Schwitalla, Al W.

2013 Global Warming in California: A Lesson from the Medieval Climatic Anomaly (A.D. 800-1350). The Center for Archaeological Research at Davis, Publication No. 17, Davis, California.

Silliman, Stephen W.

2004 *Lost Laborers in Colonial California, Native Americans and the Archaeology of Rancho Petaluma*. University of Arizona Press.

Sorensen, Karen and Albany Historical Society

2007 *Albany, Images of America*. Arcadia Publishing. San Francisco, California.

Switzer, Linda Stevens

1974 An Ethnohistory of the Ohlone of San Francisco Bay. In Robert F. Heizer (editor) 1974, *The Ohlone Indians*, pp. 5-26. California History Center, De Anza College, Cupertino, California.

The Californian

1954 "Lawrence Borg Succumbs; Rites Set Tomorrow." Obituary in *The Californian*, Salinas, California, November 2, 1954.

United States Department of Agriculture (USDA)

2020 Natural Resources Conservation Service (NRCS)Web Soil Survey. Electronic application, https://websoilsurvey.sc.egov.usda.gov/App/ WebSoilSurvey.aspx. Accessed January 2022.

Wiberg, Randy

2010 Archaeological Investigations at CA-CCO-18/548: Final Report for the vineyards at Marsh Creek Project, Contra Costa County, California. Holman & Associates Archaeological Consulting, San Francisco, California.

Winter, Joseph C.

1978 *Tamien, 6000 Years in an American City*.

Wollenberg, Charles

2008 *Berkeley, A City in History*. Berkeley: University of California Press.

APPENDIX A:

Correspondence with the Native American Heritage Commission and Native American Tribes

[redacted]

Sally Evans <sally@evans-deshazo.com>

Sacred Lands File (SLF) Request_2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Tue, Jan 18, 2022 at 5:19 PM
To: NAHC NAHC <nahc@nahc.ca.gov>

Dear NAHC,

Please find the attached request for a check of the Native American Sacred Lands File for the project at 2136-2154 San Pablo Avenue in Berkeley, Alameda County, California. Please let me know if you have any questions.

Best regards,

Sally

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



[redacted] **Sacred-Lands-File Request_San Pablo Avenue.pdf**
11199K

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: 2136-2154 San Pablo Avenue, Berkeley

County: Alameda County

USGS Quadrangle Name: USGS 7.5' Oakland West (1993)

Township: 1 South **Range:** 4 West **Section(s):** Un

Company/Firm/Agency: Evans & De Shazo, Inc.

Street Address: 1141 Gravenstein Highway S

City: Sebastopol, CA **Zip:** 95472

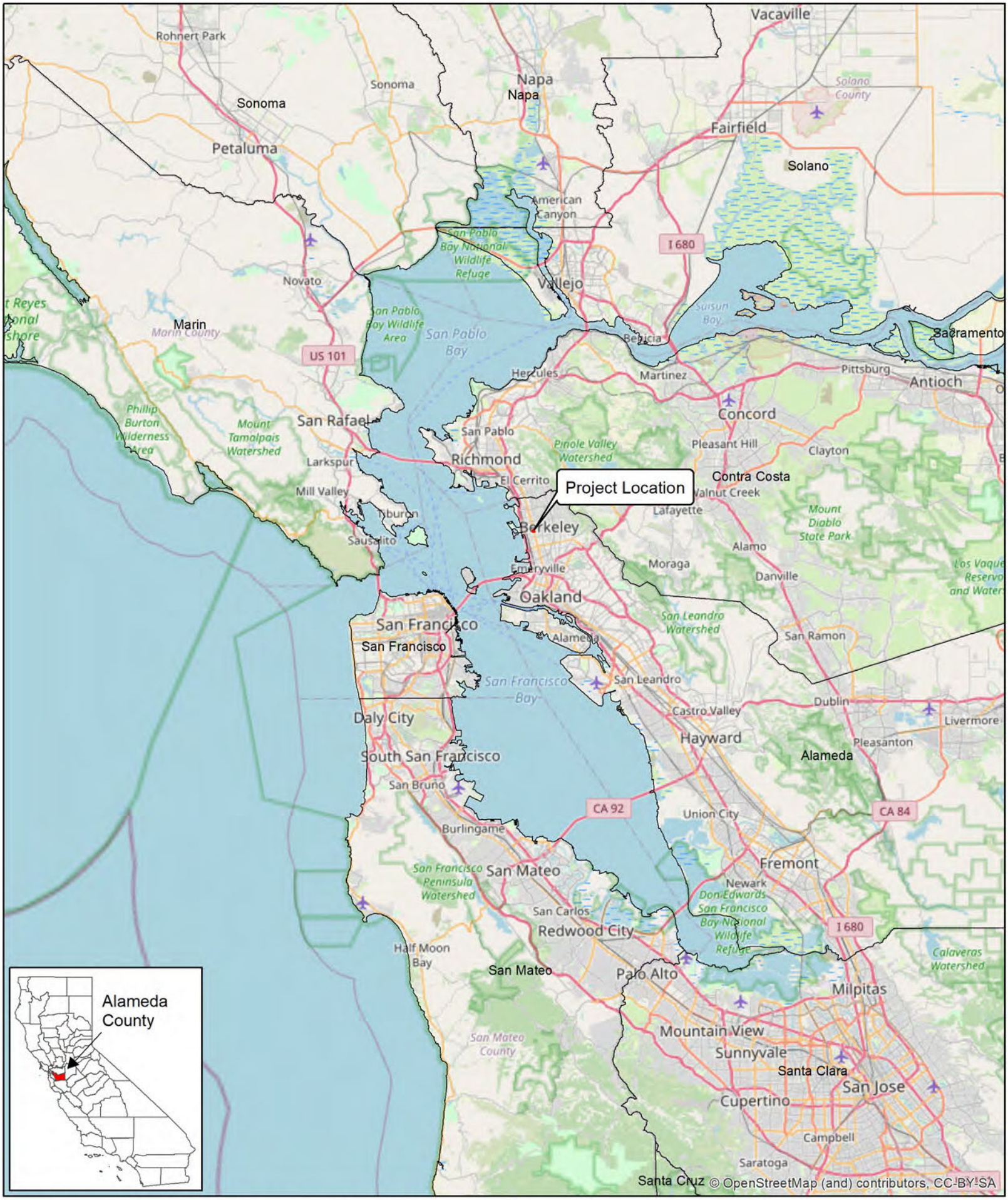
Phone: 707-484-9628

Fax:

Email: sally@evans-deshazo.com

Project Description:

The Project Area is 0.51-acres and currently contains a 1923 storefront commercial building. The proposed project includes demolition of the 1923 storefront commercial building and the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low income units (density bonus), as well as associated infrastructure and landscaping.



2136 - 2154 San Pablo Avenue
Berkeley, Alameda County
California
(APN 56-1977-11-1)

Legend

Project Area

Counties

0 5 10 Miles





EVANS & DE SHAZO
ARCHAEOLOGY
HISTORIC PRESERVATION

Map by: S. Evans, 1/18/2022

2136-2154 San Pablo Avenue
Berkeley, Alameda County
California
(APN 56-1977-11-1)

Legend

Project Area

0 0.5 1 Miles

1:24,000

USGS 7.5' Oakland West (1993), Calif. Quadrangle
Township 1 South | Range 4 West
NAD 83 UTM Zone 10N



EVANS & DE SHAZO
ARCHAEOLOGY
HISTORIC PRESERVATION

2136-2154 San Pablo Avenue
Berkeley, Alameda County
California
(APN 56-1977-11-1)

Legend

Project Area

0 25 50 100 Feet

0 5 10 20 Meters

[redacted]

Sally Evans <sally@evans-deshazo.com>

2136-2154 San Pablo Avenue, Berkeley Project

5 messages

Campagne, Cody@NAHC <Cody.Campagne@nahc.ca.gov> Thu, Feb 3, 2022 at 9:37 AM
To: "sally@evans-deshazo.com" <sally@evans-deshazo.com>
Cc: "amahmutsuntribal@gmail.com" <amahmutsuntribal@gmail.com>, "huskanam@gmail.com" <huskanam@gmail.com>, "canutes@verizon.net" <canutes@verizon.net>

Good Morning,

Attached is the response to the project referenced above. If you have any additional questions, please feel free to contact our office email at nahc@nahc.ca.gov.

Regards,

Cody Campagne

Native American Heritage Commission

1550 Harbor Blvd., Suite 100

West Sacramento, CA 95691

Cody.Campagne@nahc.ca.gov

Direct Line: (916) 573-1033

Office: (916) 373-3710

2 attachments

[redacted] **SLF Yes 2136-2154 San Pablo Avenue, Berkeley Project 2.2.2022.pdf**
252K

[redacted] **2136-2154 San Pablo Avenue, Berkeley Project 2.2.2022.pdf**
40K

Sally Evans <sally@evans-deshazo.com> Thu, Feb 3, 2022 at 3:38 PM
To: Cody.Campagne@nahc.ca.gov
Cc: "amahmutsuntribal@gmail.com" <amahmutsuntribal@gmail.com>, "huskanam@gmail.com" <huskanam@gmail.com>, "canutes@verizon.net" <canutes@verizon.net>

Thank you.

~Sally

[Quoted text hidden]

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



Campagne, Cody@NAHC <Cody.Campagne@nahc.ca.gov> Thu, Feb 3, 2022 at 3:58 PM
To: Sally Evans <sally@evans-deshazo.com>

You're welcome.

Regards,

Cody Campagne

Native American Heritage Commission

1550 Harbor Blvd., Suite 100

West Sacramento, CA 95691

Cody.Campagne@nahc.ca.gov

Direct Line: (916) 573-1033

Office: (916) 373-3710

[Quoted text hidden]
[Quoted text hidden]
[Quoted text hidden]
[Quoted text hidden]

http://www.evans-deshazo.com/

Katherine Perez <canutes@verizon.net> Thu, Feb 3, 2022 at 7:46 PM
Reply-To: Katherine Perez <canutes@verizon.net>
To: "sally@evans-deshazo.com" <sally@evans-deshazo.com>

Hello Sally,

There is nothing attached.

Nototomne Cultural Preservation
Northern Valley Yokut / Ohlone / Bay Mewuk / Patwin
Katherine Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@verizon.net

-----Original Message-----
From: Sally Evans <sally@evans-deshazo.com>
To: Cody.Campagne@nahc.ca.gov
Cc: amahmutsuntribal@gmail.com <amahmutsuntribal@gmail.com>; huskanam@gmail.com <huskanam@gmail.com>; canutes@verizon.net <canutes@verizon.net>
Sent: Thu, Feb 3, 2022 3:38 pm
Subject: Re: 2136-2154 San Pablo Avenue, Berkeley Project

[Quoted text hidden]

Sally Evans <sally@evans-deshazo.com> Fri, Feb 4, 2022 at 1:01 PM
To: Katherine Perez <canutes@verizon.net>

Hi Katherine,

Cody at the NAHC had attached the results of a Sacred Lands inventory for the project at 2136-2154 San Pablo Avenue but I attached them again just in case you didn't get them. The City of Berkeley will be reaching out to you soon to initiate AB 52 consultation for the project. In the meantime, please let me know if you have any questions.

Best regards,

Sally
[Quoted text hidden]

2 attachments

2136-2154 San Pablo Avenue, Berkeley Project 2.2.2022.pdf
40K

SLF Yes 2136-2154 San Pablo Avenue, Berkeley Project 2.2.2022.pdf
252K

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 2, 2022

Sally Evans
Evans & De Shazo, Inc.

Via Email to: sally@evans-deshazo.com

Re: 2136-2154 San Pablo Avenue, Berkeley Project, Alameda County

Dear Ms. Evans:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Amah Mutsun Tribal Band of Mission San Juan Bautista and North Valley Yokuts Tribe on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Alameda County
2/2/2022

Amah MutsunTribal Band of Mission San Juan Bautista
Irene Zwierlein, Chairperson
3030 Soda Bay Road — Costanoan
Lakeport, CA, 95453
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street — Costanoan
Pomona, CA, 91766
Phone: (909) 629 - 6081
Fax: (909) 524-8041
rumsen@aol.com

Guidiville Indian Rancheria
Donald Duncan, Chairperson
P.O. Box 339 — Pomo
Talmage, CA, 95481
Phone: (707) 462 - 3682
Fax: (707) 462-9183
admin@guidiville.net

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28 — Costanoan
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyons.org

Indian Canyon Mutsun Band of Costanoan
Kanyon Sayers-Roods, MLD Contact
1615 Pearson Court — Costanoan
San Jose, CA, 95122
Phone: (408) 673 - 0626
kanyon@kanyonkonsulting.com

Muwekma Ohlone Indian Tribe of the SF Bay Area
Monica Arellano, Vice Chairwoman
20885 Redwood Road, Suite 232 — Costanoan
Castro Valley, CA, 94546
Phone: (408) 205 - 9714
marellano@muwekma.org

North Valley Yokuts Tribe
Timothy Perez,
P.O. Box 717 — Costanoan
Linden, CA, 95236 — Northern Valley
Phone: (209) 662 - 2788 — Yokut
huskanam@gmail.com

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717 — Costanoan
Linden, CA, 95236 — Northern Valley
Phone: (209) 887 - 3415 — Yokut
canutes@verizon.net

The Ohlone Indian Tribe
Andrew Galvan,
P.O. Box 3388 — Bay Miwok
Fremont, CA, 94539 — Ohlone
Phone: (510) 882 - 0527 — Patwin
Fax: (510) 687-9393 — Plains Miwok
chochenyo@AOL.com

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct. — Foothill Yokut
Salinas, CA, 93906 — Mono
Phone: (831) 443 - 9702
kwood8934@aol.com

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue — Bay Miwok
Oakland, CA, 94603 — Ohlone
Phone: (510) 575 - 8408 — Delta Yokut
cvltribe@gmail.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed 2136-2154 San Pablo Avenue, Berkeley Project, Alameda County.

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: huskanam@gmail.com
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Mr. Perez,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_TP.pdf
77K

Project Location Maps.pdf

Planning and Development
Land Use Planning Division

February 9, 2022

Mr. Timothy Perez
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA 95236
huskanam@gmail.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Mr. Perez,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: Tony Cerda <rumsen@aol.com>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Mr. Cerda,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_TC.pdf
76K

Project Location Maps.pdf

Planning and Development
Land Use Planning Division

February 9, 2022

Mr. Tony Cerda, Chairperson
Costanoan Rumsen Carmel Tribe
244 E. 1st Street
Pomona, CA 91766
rumsen@aol.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Mr. Cerda,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

2 messages

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: "Monica V. Arellano" <marellano@muwekma.org>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Ms. Arellano,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_MA.pdf
77K

Project Location Maps.pdf

11109K

---

postmaster@muwekma.org <postmaster@muwekma.org> Thu, Feb 10, 2022 at 1:01 PM
To: sally@evans-deshazo.com

Delivery has failed to these recipients or groups:

Monica V. Arellano (marellano@muwekma.org)

The recipient's mailbox is full and can't accept messages now. Please try resending your message later, or contact the recipient directly.

Diagnostic information for administrators:

Generating server: SJ0PR06MB8215.namprd06.prod.outlook.com

marellano@muwekma.org
Remote Server returned '554 5.2.2 mailbox full; STOREDRV.Deliver.Exception:QuotaExceededException. MapiExceptionShutoffQuotaExceeded; Failed to process message due to a permanent exception with message The process failed to get the correct properties. 0.35250:B0420000, 1.36674:06000000, 1.61250:00000000, 1.45378:02000000, 1.44866:0B000000, 1.36674:A1000000, 1.61250:00000000, 1.45378:11000000, 1.44866:50000000, 1.36674:09000000, 1.61250:00000000, 1.45378:64000000, 1.44866:00010000, 1.36674:08000000, 1.61250:00000000, 1.45378:67000000, 1.44866:00100000, 16.55847:DD000000, 17.43559:00000000AE03000000000000000000 0000000000, 20.52176:140F6F930B0070200A006030, 20.50032:140F6F937B171010D8420000, 0.35180:0A005F30, 255.23226:65010000, 255.27962:06000000, 255.17082:DD040000, 0.24929:66010000, 4.21921:DD040000, 255.27962:FA000000, 255.1494:00000000, 0.38698:46000000, 1.41134:86000000, 7.36354: 01000000007626DE01000000, 7.36354:01000000007626DE86000000, 0.58678:01000000, 5.29818: 0000000034333036376534662D663530372D343365302D613961632D6139643866363265353531636100000000, 5.55446:00000000333A300060FEFFFF, 7.29828:E84E10800C000000FE7F0600, 7.29832: 000000800C00000001000000, 4.45884:DD040000, 4.29880:DD040000, 4.59420:DD040000, 7.49544: 01000000007626DE30364D42, 8.45434:4F7E064307F5E043A9ACA9D8F62E51CA3763392D, 1.46798:04000000, 5.10786:0000000031352E32302E343937352E3031313A425933505230364D423831 31353A61656661383238622D363862372D343763392D396335372D303436663934363339306263 3A3137383634 3000FA101004000000, 7.51330:76A5418FD8ECD90800000000, 0.39570:07000000, 1.64146:06000000, 1.33010:06000000, 2.54258:DD040000, 255.1750:32430000, 255.27962:A1000000, 255.17082:B9040000, 0.27745:37430000, 4.21921:B9040000, 255.27962:09000000, 0.26881:3C430000, 255.21817:B9040000, 0.60978:D5000000, 0.36402:41430000, 4.38450:DD040000, 0.47602:DA000000, 4.63986:DD040000, 0.22945:0A009F30, 4.31137:DD040000, 0.26529:4B430000, 4.29953:DD040000, 0.32768:E4000000, 4.33024:DD040000 [Stage: CreateMessage]'

Original message headers:

```
Received: from BN8PR04CA0066.namprd04.prod.outlook.com (2603:10b6:408:d4::40)
 by SJ0PR06MB8215.namprd06.prod.outlook.com (2603:10b6:a03:38d::20) with
 Microsoft SMTP Server (version=TLS1_2,
 cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id 15.20.4975.11; Thu, 10 Feb
 2022 21:01:40 +0000
Received: from BN8NAM12FT034.eop-nam12.prod.protection.outlook.com
 (2603:10b6:408:d4:cafe::e0) by BN8PR04CA0066.outlook.office365.com
 (2603:10b6:408:d4::40) with Microsoft SMTP Server (version=TLS1_2,
 cipher=TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384) id 15.20.4975.13 via Frontend
 Transport; Thu, 10 Feb 2022 21:01:40 +0000
Authentication-Results: spf=none (sender IP is 209.85.218.50)
 smtp.mailfrom=evans-deshazo.com; dkim=pass (signature was verified)
 header.d=evans-deshazo-com.20210112.gappssmtp.com;dmarc=none action=none
 header.from=evans-deshazo.com;compauth=pass reason=106
Received-SPF: None (protection.outlook.com: evans-deshazo.com does not
```

Planning and Development
Land Use Planning Division

February 9, 2022

Ms. Monica Arellano, Vice Chairwoman
Muwekma Ohlone Indian Tribe of the
San Francisco Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA 94546
marellano@muwekma.org

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Ms. Arellano,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: kwood8934@aol.com
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Mr. Woodrow,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_KW.pdf
77K

Project Location Maps.pdf

Planning and Development
Land Use Planning Division

February 9, 2022

Mr. Kenneth Woodrow, Chairperson
Wuksache Indian Tribe/Eshom Valley Band
1179 Rock Haven Ct.
Salinas, CA 93906
Kwood8934@aol.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Mr. Woodrow,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: kanyon@kanyonkonsulting.com
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Ms. Sayer-Roods,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_KSR.pdf
77K

Project Location Maps.pdf

Planning and Development
Land Use Planning Division

February 9, 2022

Ms. Kanyon Sayers-Roods, MLD
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA 95122
kanyon@kanyonkonsulting.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Ms. Sayers-Roods,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: Katherine Perez <canutes@verizon.net>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Ms. Perez,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_KP.pdf
77K

Project Location Maps.pdf

Planning and Development
Land Use Planning Division

February 9, 2022

Ms. Katherine Perez, Chairperson
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA 95236
canutes@verizon.net

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Ms. Perez,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: Amah Mutsun <amahmutsuntribal@gmail.com>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Ms. Zwierlein,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--
Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303

http://www.evans-deshazo.com/

2 attachments

AB 52 Consultation Letter_2136 - 2154_lZ.pdf
76K

Planning and Development
Land Use Planning Division

February 9, 2022

Ms. Irene Zwierlein, Chairperson
Amah Mutsun Tribal Band of Mission San Juan Bautista
3030 Soda Bay Road
Lakeport, CA 95453
amahmutsuntribal@gmail.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Ms. Zwierlein,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: admin@guidiville.net
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Mr. Duncan,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--
Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303

http://www.evans-deshazo.com/

2 attachments

AB 52 Consultation Letter_2136 - 2154_DD.pdf
76K

Planning and Development
Land Use Planning Division

February 9, 2022

Mr. Donald Duncan, Chairperson
Guidiville Indian Rancheria
P.O. Box 339
Talmage, CA 95481
admin@guidiville.net

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Mr. Duncan,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: Corrina Gould <cvltribe@gmail.com>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Ms. Gould,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_CG.pdf
78K

Project Location Maps.pdf

Planning and Development
Land Use Planning Division

February 9, 2022

Ms. Corrina Gould, Chairperson
The Confederated Villages of Lisjan
10926 Edes Avenue
Oakland, CA 94603
cvltribe@gmail.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Ms. Gould,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: ams@indiancanyons.org
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Ms. Sayers,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_AMS.pdf
77K

Project Location Maps.pdf

Planning and Development
Land Use Planning Division

February 9, 2022

Ms. Ann Marie Sayers, Chairperson
Indian Canyon Mutsun Band of Costanoan
P.O. Box 28
Hollister, CA 95024
ams@indiancanyons.org

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Ms. Sayers,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

1 message

Sally Evans <sally@evans-deshazo.com> Thu, Feb 10, 2022 at 1:00 PM
To: Andy Galvan <chochenyo@aol.com>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Dear Mr. Galvan,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. The attached letter (also sent to you USPS), is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project at 2136 – 2154 San Pablo Avenue includes the construction of a new mixed-use building within a 0.51-acre parcel. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached to this email.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City (point of contact, Sharon Gong, cc'd here) on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,

Sally Evans

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*
Evans & De Shazo, Inc. - Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |
Office: 707-823-7400 | Cell: 707-484-9628
Oregon: 5305 River Road N., Keizer, OR 97303



http://www.evans-deshazo.com/



2 attachments

AB 52 Consultation Letter_2136 - 2154_AG.pdf
76K

Project Location Maps.pdf

Planning and Development
Land Use Planning Division

February 9, 2022

Mr. Andrew Galvan
Ohlone Indian Tribe
P.O. Box 3388
Fremont, CA 94539
chochenyo@aol.com

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1

Dear Mr. Galvan,

In accordance with Public Resources Code (PRC) Section (§) 21080.3.1 a formal notification is required to request consultation from the designated contact or tribal representative of a traditionally and culturally affiliated California Native American tribe. This letter is to notify you of a project proposed within the property at 2136 – 2154 San Pablo Avenue, Berkeley, Alameda County, California, for which the City of Berkeley will serve as the lead agency under the California Environmental Quality Act (CEQA).

The project includes the construction of a new, approximately 81,000-square-foot, six-story, mixed-use building with approximately 126 dwelling units, including three ground floor live/work units, as well as 10 very low-income units (density bonus). The project area includes a square-shaped, 0.51-acre parcel that currently contains a 1923 commercial storefront building that will be demolished as part of the Project. Application materials provided to date, including technical reports, can be viewed here:

https://www.cityofberkeley.info/Planning_and_Development/Zoning_Adjustment_Board/2136-2154_San_Pablo.aspx

A project vicinity map, topographic map, and an aerial photograph of the project area are attached.

Your comments regarding decisions, which may affect ancestral tribal sites, are important to the City of Berkeley. If you desire to consult with the City on the review of this project, please respond in writing within thirty (30) days of the date of this letter to the below point of contact.

Should the City not receive a response within thirty (30) days, it will be presumed that you have declined consultation. Thank you for consideration on this matter and please do not hesitate to contact me should you have any questions or need additional information.

Sincerely,



Sharon Gong
Principal Planner
(510) 981-7429
sgong@cityofberkeley.info

Attachments:

Project vicinity map
Topographic map
Aerial photograph

7021 2720 0000 8767 6818

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Linden, CA 95236
OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30 SEBASTOPOL CA 95472 USPS Postmark Here FEB 10 2022 02/10/2022

Sent To: Timothy Perez
Street and Apt. No., or PO Box No.: P.O. Box 717
City, State, ZIP+4®: Linden, CA 95236

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6825

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Pomona, CA 91766
OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30 SEBASTOPOL CA 95472 USPS Postmark Here FEB 10 2022 02/10/2022

Sent To: Tony Cerda
Street and Apt. No., or PO Box No.: 244 E. 1st Street
City, State, ZIP+4®: Pomona, CA 91766

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6832

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Castro Valley, CA 94546
OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30 SEBASTOPOL CA 95472 USPS Postmark Here FEB 10 2022 02/10/2022

Sent To: Monica Arellano
Street and Apt. No., or PO Box No.: 20885 Redwood Rd, Ste 232
City, State, ZIP+4®: Castro Valley, CA 94546

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6856

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
San Jose, CA 95122
OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30 SEBASTOPOL CA 95472 USPS Postmark Here FEB 10 2022 02/10/2022

Sent To: Kanyan Sayer-Roods
Street and Apt. No., or PO Box No.: 1615 Pearson Ct
City, State, ZIP+4®: San Jose, CA 95122

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6849

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Salinas, CA 93906
OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30 SEBASTOPOL CA 95472 USPS Postmark Here FEB 10 2022 02/10/2022

Sent To: Kenneth Woodrow
Street and Apt. No., or PO Box No.: 1179 Rock Haven Ct.
City, State, ZIP+4®: Salinas, CA 93906

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6863

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Linden, CA 95236
OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30 SEBASTOPOL CA 95472 USPS Postmark Here FEB 10 2022 02/10/2022

Sent To: Katherine Perez
Street and Apt. No., or PO Box No.: P.O. Box 717
City, State, ZIP+4®: Linden, CA 95236

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6900

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Hollister, CA 95024

OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30
USPS SEBASTOPOL CA 95472
Postmark Here
FEB 15 2022
02/10/2022

Sent To: Ann Marie Sayers
Street and Apt. No., or PO Box No.: P.O. Box 28
City, State, ZIP+4®: Hollister, CA 95024

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6917

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Fremont, CA 94539

OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30
USPS SEBASTOPOL CA 95472
Postmark Here
FEB 15 2022
02/10/2022

Sent To: Andrew Galvan
Street and Apt. No., or PO Box No.: P.O. Box 3388
City, State, ZIP+4®: Fremont CA 94539

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6894

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Oakland, CA 94603

OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30
USPS SEBASTOPOL CA 95472
Postmark Here
FEB 15 2022
02/10/2022

Sent To: Corrina Gould
Street and Apt. No., or PO Box No.: 10926 Edes Avenue
City, State, ZIP+4®: Oakland CA 94603

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6887

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Talmage, CA 95481

OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30
USPS SEBASTOPOL CA 95472
Postmark Here
FEB 15 2022
02/10/2022

Sent To: Donald Duncan
Street and Apt. No., or PO Box No.: P.O. Box 339
City, State, ZIP+4®: Talmage, CA 95481

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 2720 0000 8767 6870

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.
Lakeport, CA 95453

OFFICIAL USE

Certified Mail Fee	$3.75
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$0.58
Total Postage and Fees	$4.33

0679 30
USPS SEBASTOPOL CA 95472
Postmark
FEB 15 2022
02/10/2022

Sent To: Irene Zwierlein
Street and Apt. No., or PO Box No.: 3030 Soda Bay Rd
City, State, ZIP+4®: Lakeport, CA 95453

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Corrina Gould <cvltribe@gmail.com> Sun, Feb 13, 2022 at 12:28 PM
To: Sally Evans <sally@evans-deshazo.com>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Hello,

Thank you for your email. Can you please send additional information regarding the site? Has there been a Sacred Lands File search at the Native American Heritage Commission with Negative or Positive findings? Once this information is available, we can move forward with possible consultation.

'Uni (Respectfully),

Corrina Gould, Tribal Chair
Confederated Villages of Lisjan Tribe

[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Corrina Gould <cvltribe@gmail.com> Tue, Feb 15, 2022 at 3:49 PM
To: Sally Evans <sally@evans-deshazo.com>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Thank you for your email. The tribe would like to consult for this project. You can check our Calendly link below to schedule a consultation. Please make sure to include the project name in the notes section when scheduling the consultation.

Access our Calendly here:
https://calendly.com/cvltribe/consultation

[Quoted text hidden]
[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Sally Evans <sally@evans-deshazo.com> Wed, Feb 16, 2022 at 12:04 PM
To: "Gong, Sharon" <SGong@cityofberkeley.info>

Hi Sharon,

Corrina Gould with the Confederated VIllages of Lisjan is requesting consultation on the Project, and she provided a link to the calendar. Our scope of work for the cultural study includes AB 52 tribal consultation assistance/guidance, and can participate in the meeting if needed.

Sally

[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Corrina Gould <cvltribe@gmail.com> Thu, Mar 3, 2022 at 12:39 AM
To: Sally Evans <sally@evans-deshazo.com>
Cc: "Gong, Sharon" <SGong@cityofberkeley.info>

Hello,

Checking back in about setting up a consultation meeting with you and others as it pertains to this project. Please see the Calendly link above to move forward with the consultation process.

[Quoted text hidden]

[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Sally Evans <sally@evans-deshazo.com> Fri, Mar 4, 2022 at 5:58 PM
To: Corrina Gould <cvltribe@gmail.com>

Hi Corrina,

Thank you for checking back in. I reminded Sharon Gong at the City that this is a government-to-government consultation and so it is up to her to schedule the meeting with you, although I would be available if needed.

For a quick update on the cultural study - we have completed the archaeological field survey and no resources were identified. The report is in progress.

~Sally

[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Gong, Sharon <SGong@cityofberkeley.info> Wed, Mar 9, 2022 at 3:04 PM
To: Corrina Gould <cvltribe@gmail.com>, Sally Evans <sally@evans-deshazo.com>

Hi Corrina,

Thank you for your interest. We will wait until 30 days have passed (3/12/22) so that any other interested tribes can respond, to schedule a meeting for all interested tribes, unless separate consultation meetings are requested.

Sharon

Sharon Gong (she/her/hers)

Principal Planner

Planning and Development, Land Use Division

1947 Center St., 2nd Floor, Berkeley, CA 94704

From: Corrina Gould <cvltribe@gmail.com>
Sent: Tuesday, February 15, 2022 3:50 PM
To: Sally Evans <sally@evans-deshazo.com>
Cc: Gong, Sharon <SGong@cityofberkeley.info>
Subject: Re: AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

WARNING: This is not a City of Berkeley email. Do not click links or attachments unless you trust the sender and know the content is safe.

Thank you for your email. The tribe would like to consult for this project. You can check our Calendly link below to schedule a consultation. Please make sure to include the project name in the notes section when scheduling the consultation.

[Quoted text hidden]

[Quoted text hidden]
[Quoted text hidden]

---

image001.png

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Corrina Gould <cvltribe@gmail.com> Wed, Mar 9, 2022 at 11:15 PM
To: "Gong, Sharon" <SGong@cityofberkeley.info>
Cc: Sally Evans <sally@evans-deshazo.com>

Dear Sharon
We are requesting a separate consultation meeting. Wednesday remains the bast day for Tribal consultation for us.

Sincerely

Corrina Gould, CVL Tribal Chair
[Quoted text hidden]
--
[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Gong, Sharon <SGong@cityofberkeley.info> Thu, Mar 10, 2022 at 9:28 AM
To: Corrina Gould <cvltribe@gmail.com>
Cc: Sally Evans <sally@evans-deshazo.com>

Certainly, I'll coordinate with Sally, and we'll schedule a time to meet with you.

Thanks,

Sharon

From: Corrina Gould <cvltribe@gmail.com>
Sent: Wednesday, March 9, 2022 11:15 PM
To: Gong, Sharon <SGong@cityofberkeley.info>

[Quoted text hidden]

[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Gong, Sharon <SGong@cityofberkeley.info> Thu, Mar 10, 2022 at 9:40 AM
To: Sally Evans <sally@evans-deshazo.com>

Hi Sally,

It looks like Corrina has availability on Wednesday, 3/23 afternoon 2-4 p.m. I can make a meeting at 3 p.m. or 4 p.m. on that day. If that doesn't work, she also has Wednesday, 3/30 afternoon 1-4 p.m. I can do the same times for that day.

Let me know what works for you.

Sharon

From: Corrina Gould <cvltribe@gmail.com>
Sent: Wednesday, March 9, 2022 11:15 PM
To: Gong, Sharon <SGong@cityofberkeley.info>
Cc: Sally Evans <sally@evans-deshazo.com>

[Quoted text hidden]

[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Sally Evans <sally@evans-deshazo.com> Thu, Mar 10, 2022 at 11:42 AM
To: "Gong, Sharon" <SGong@cityofberkeley.info>

Hi Sharon,

4PM on 3/23 works for me, or anytime 3/30 between 1-4pm.

Sally
[Quoted text hidden]

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Gong, Sharon <SGong@cityofberkeley.info> Thu, Mar 10, 2022 at 11:52 AM
To: Sally Evans <sally@evans-deshazo.com>

Hi Sally, I just forwarded the invitation to you. See you at the meeting.

Sharon

[Quoted text hidden]
[Quoted text hidden]

> [Quoted text hidden]
>
> [Quoted text hidden]
>
> > [Quoted text hidden]
> > [Quoted text hidden]
> > [Quoted text hidden]
> >
> > > [Quoted text hidden]
> > > [Quoted text hidden]
> > >
> > > > [Quoted text hidden]
> > > > [Quoted text hidden]
> > > >
> > > > > [Quoted text hidden]
> > > > > [Quoted text hidden]
> > > > > [Quoted text hidden]
> > > > > [Quoted text hidden]
> > > > >
> > > > > **https://docs.google.com/uc?export=download&id=1J-OVHn0u2MuioxD-8NMuJqSKMk7Ns8Bd&revid=0B3hPGBYtGvUAWWhuczVSbmVoa1k1VEljNDFzblIRbTlMWDVzPQ**
> > > > >
> > > > > ***http://www.evans-deshazo.com/***
> > > > >
> > > > > http://chittagongit.com/images/official-facebook-icon/official-facebook-icon-6.jpg

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*

Evans & De Shazo, Inc. -

Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |

Office: 707-823-7400 | Cell: 707-484-9628

Oregon: 5305 River Road N., Keizer, OR 97303



https://docs.google.com/uc?export=download&id=1J-OVHn0u2MuioxD-8NMuJqSKMk7Ns8Bd&revid=0B3hPGBYtGvUAWWhuczVSbmVoa1k1VEljNDFzbllRbTlMWDVzPQ

http://www.evans-deshazo.com/


http://chittagongit.com/images/official-facebook-icon/official-facebook-icon-6.jpg

--

'Uni (Respectfully),

Corrina Gould, Tribal Chair

Confederated Villages of Lisjan Tribe

--

Sally Evans, M.A., RPA | *Principal Archaeologist / Cultural Resource Specialist*

Evans & De Shazo, Inc. -

Archaeology ▪ Historic Preservation

Main Office: 1141 Gravenstein Hwy S | Sebastopol | CA | 95472 |

Office: 707-823-7400 | Cell: 707-484-9628

Oregon: 5305 River Road N., Keizer, OR 97303



https://docs.google.com/uc?export=download&id=1J-OVHn0u2MuioxD-8NMuJqSKMk7Ns8Bd&revid=0B3hPGBYtGvUAWWhuczVSbmVoa1k1VEljNDFzbllRbTlMWDVzPQ

http://www.evans-deshazo.com/


http://chittagongit.com/images/official-facebook-icon/official-facebook-icon-6.jpg

[redacted]

Sally Evans <sally@evans-deshazo.com>

AB52 Notification for a project at 2136-2154 San Pablo Avenue, Berkeley

Sally Evans <sally@evans-deshazo.com> Thu, Mar 10, 2022 at 11:54 AM
To: "Gong, Sharon" <SGong@cityofberkeley.info>

Perfect. Received and accepted. See you there.

Sally

[Quoted text hidden]
[Quoted text hidden]
[Quoted text hidden]
[Quoted text hidden]
[Quoted text hidden]



http://www.evans-deshazo.com/



[redacted]

Sally Evans <sally@evans-deshazo.com>

2136-2154 San Pablo Ave - Revised Cultural Resources Recommendations

Gong, Sharon <SGong@cityofberkeley.info> Thu, Jul 21, 2022 at 12:17 PM
To: Corrina Gould <cvltribe@gmail.com>
Cc: Alison Lenci <alenci@up-partners.com>, Lynette Dias <ldias@up-partners.com>, Sally Evans <sally@evans-deshazo.com>

Hello Corrina,

We have received the results of the GPR survey for the project at 2136-2154 San Pablo Avenue, finding no indication of pre-U.S. period archaeological materials on the site. Please review the attached report, and advise us as to whether you would like to consult further, or if you are ready to conclude the AB 52 tribal consultation process based on these results.

Sally Evans, our archaeology consultant, is suggesting a change to the recommendation with respect to Cultural Resources in the EIR based on the GPR results. Please review the revised recommendation below as well, and advise us as to whether the revised recommendation is satisfactory.

Regards,

Sharon

Sharon Gong (she/her/hers)

Senior Planner

Planning and Development, Land Use Division

1947 Center St., 2nd Floor, Berkeley, CA 94704

From: Sally Evans <sally@evans-deshazo.com>
Sent: Tuesday, July 19, 2022 1:04 PM
To: Gong, Sharon <SGong@cityofberkeley.info>
Cc: Alison Lenci <alenci@up-partners.com>; Lynette Dias <ldias@up-partners.com>
Subject: 2136-2154 San Pablo Ave - Revised Cultural Resources Recommendations

WARNING: This is not a City of Berkeley email. Do not click links or attachments unless you trust the sender and know the content is safe.

[Quoted text hidden]

2 attachments



image001.png
5K

2136SanPablo_Berkeley_GPR-report.pdf
7122K

[redacted]

Sally Evans <sally@evans-deshazo.com>

2136-2154 San Pablo Ave - Revised Cultural Resources Recommendations

Corrina Gould <cvltribe@gmail.com> Wed, Aug 24, 2022 at 4:56 PM
To: "Gong, Sharon" <SGong@cityofberkeley.info>
Cc: Alison Lenci <alenci@up-partners.com>, Lynette Dias <ldias@up-partners.com>, Sally Evans <sally@evans-deshazo.com>

Dear Sharon,

Please forgive the late reply, many of our Tribal members were away from emails for the month of July for the ceremony and we are playing catch up. We are happy to hear that there was nothing found on the proposed project site and we are in agreement with changing the mitigation measures to include Cultural Resource Awareness Training and to remove Native Monitoring on the site. This will conclude our consultation on this project.

'Uni (Respectfully),

Corrina Gould, Tribal Chair
Confederated Villages of Lisjan Nation

[Quoted text hidden]

APPENDIX B:

Department of Parks and Recreation (DPR) 523 Forms

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code
Reviewer
Date

Page 1 **of** 9 ***Resource Name or #:** 2136-2154 San Pablo Avenue
P1. Other Identifier: None

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**
***a. County** Alameda **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Oakland West **Date** 1993 **Township & Range** --
c. Address 2136-2154 San Pablo Ave. City Berkeley Zip 94710
d. UTM: Zone __, _____ mE/ _____ mN
e. Other Locational Data:
Assessor's Parcel Number 56-1977-11-1

***P3a. Description:**

2136-2154 San Pablo Ave. is a single-story commercial building, eight storefront bays wide and occupying a parcel filling almost one-half of the central-southern portion of its block front. The subject building is a rectangular (approx. 150 feet wide by 60 feet deep), concrete-walled structure with a low-slope, wood-framed roof. Its front is a series of framed storefront bays consisting of nine equally spaced piers, between which are the eight storefronts, with a continuous spandrel above. (cont.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



Fig.1 – 2136-2154 San Pablo Ave., front view (looking west)

***P3b. Resource Attributes:**
HP6: 1-3 story commercial building
***P4.ResourcesPresent:** ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other
P5b. Description of Photo:
fig.1)MH,2019;
fig.2)Sanborn map,c1981;
figs.3-4)MH,2019;
***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both
1923, Completion Notice

***P7. Owner and Address:**
Milton & Gary Pagonis
14450 Black Walnut Ct.
Saratoga, CA 95070

***P8. Recorded by:**
Mark Hulbert
446 17th St. #302
Oakland, CA 94612

P9. Date Recorded:
October 23, 2019
***P10. Survey Type:** (Describe)
Intensive
***P11. Report Citation**:
None

***Attachments:** ☐NONE ☐Location Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** 2136-2154 San Pablo Avenue, Berkeley ***NRHP Status Code**
Page 2 **of** 9

B1. Historic Name: none
B2. Common Name: 2136-2154 San Pablo Avenue
B3. Original Use: Commercial/Stores B4. Present Use: same
***B5. Architectural Style:** Beaux Arts commercial block
***B6. Construction History:**

When first mapped, the northern portion of the subject block stood in the Berkeley Land and Town Improvement Association (BLTIA) Tract B and the southern approx. one-third, inclusive of the subject parcels, in the Allston Tract. The property and its building occupy original lots 13-19 of block 101 of the Allston Tract, which was first recorded in 1890. (cont.)

***B7. Moved?** ■No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:** None
B9a. Architect: Schirmer Bugbee & Co. b. Builder: C. Texdahl
***B10. Significance: Theme** Commercial development **Area** Berkeley
Period of Significance 1923 **Property Type** Commercial **Applicable Criteria** CR3

The architectural style exhibited at the building's front is Beaux Arts commercial, with storefronts enframed by cast ornamentation consisting of Corinthian style pilasters crowned with a molded entablature with, in the flat wall segment above the crown, applied garlands centered above each pilaster, the entablature completed by the molded projecting cornice, spanned by a parapet with its own molded cap (cont.)

B11. Additional Resource Attributes: none

***B12. References:**

Alameda County/Oakland directories – 1910-1974; Sanborn Maps – 1929, 1950, c1981;
Alameda County Assessor's records, 1919-1940; City of Berkeley permit records.

B13. Remarks:
***B14. Evaluator:** Mark Hulbert Preservation Architect
***Date of Evaluation:** October 23, 2019

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



Fig.2-2136-54 San Pablo, 1981 Sanborn

Description (continued):

The materials appear to be a mix of flat cement plaster finishes with cast ornamentation, presumably terra cotta, although the exterior has been painted numerous times, so the exact cast material is not in evidence. The ornamentation lends the building architectural character. It consists of Corinthian style pilasters crowned with a molded entablature with, in the flat wall segment above the crown, applied garlands centered above each pilaster, the entablature completed by the molded projecting cornice, spanned by a parapet with its own molded cap.

The eight storefronts are each in two vertical parts, with a sub-spandrel from pier-to-pier, below which are the storefronts with, corresponding to a mezzanine, transoms. The spandrels are mostly open at their faces, presumably for electrical and signage, and appear to be wood construction. The four southern storefronts also appear to be largely original/early, though with some alteration, whereas the four northern ones have evidently been modified, at least at the storefront level yet including several of the transoms. Identifiable original/early storefront elements include steel sash fixed storefront windows and semi-operable transom windows. Four of the eight storefronts have central recessed entry ways with canted side windows, marble mosaic tile exterior landings, paneled wood ceilings, wood and glass panel entry doors. One of these entries has two side-by-side entry doors and, thus, a wider vestibule with narrower storefront windows. A fifth storefront also has a recessed entry with the tile floor and wood ceiling, yet its storefront is board and batten, not windows, and its door solid wood. The adjacent storefront also has a board and batten exterior as well as a multi-lite entry door flush to the building front. A seventh storefront has two doors at the face of wall, without a vestibule. Finally, one of the central storefronts is fully recessed with a recessed, roll-up door. That bay is also the only one without any remnant of transom windows, which all four of the southern storefronts and the two northern storefronts retain, plus a partially retained transom in another bay. The surviving transom windows are thirteen lites wide by two lites high, the upper lites small and the lower lites tall.

The building is set back from its side lot lines, some eight feet at the north, where there is a gated service area and the partial front of a rearward addition. The setback at the south is some twenty feet, where there is a paved driveway to the rear of the lot, which is largely open. At the rear, north end, a rear addition was appended to the 2136 San Pablo shop in 1966. That addition is a plain, wood framed, stucco clad box. An open tent abuts the rear of the building at its center, corresponding to the auto repair business at no. 2144. Otherwise, there are single rear doors with wooden stoops at each of the shops at the southern end of the building. (cont.)

Description (continued):



Fig.3 – 2136-2154 San Pablo Ave., front (looking north)



Fig.4 – 2136-2154 San Pablo Ave., Rear (looking north)

History (continued):

The range of assigned addresses number ten. Presumably, from its origins, several of the building's eight bays were subdivided into two commercial spaces, which divisions partially remain. However, original and current addresses do not correspond and several original addresses are not currently in use, including no. 2136.

No original building permit records exist. The earliest such record is a December 1923 permit application for alterations to the interior and storefront at the address 2146 San Pablo, by the building's then owner, Lawrence Borg.

Under Borg's name, Alameda County Assessor's records include a Notice of Completion for a "class "c" reinforced concrete 8 story [sic] building" on a lot on the west side of San Pablo 75 feet north of Allston Way. That notice was dated the 19th of June 1923 and which also identified that the construction contract was filed on the 24th of January, along with the identity of the contractor, C. Texdahl.

Borg was then the owner and manager of the Varsity Theater at 2024 San Pablo, one block north of the subject building. A Wikipedia entry for the Varsity acknowledges Borg's then ownership and noted that he also owned a parcel one block to its south, where he had intended to build a larger theater.

At that time, Borg's holdings on the subject block included lots 13-20, thus the 75 foot measurement noted above, which was to the southeast corner of lot 20. He acquired lots 13-20 of block 101 in May of 1922 from two couples, Charles W. and Ruby M. Brock and Ray O. and Dora Bradley Long. Following the development of the 2136-2154 San Pablo Ave. stores, in December 1924, Borg transferred his ownership to a corporation, West Berkeley Theatres, Inc., in which he was listed as the vice president under the president, R. A. McNeil. At that juncture, the parcel, consisting of lots 13-20, was segregated into convoluted front and rear portions. Thus, confusingly, that 1924 deed was specifically for a portion of lots 13-19 measuring 55.9 ft. by 149.9 ft., which appears to correspond to the subject store building's footprint plus 8 feet at its northern end to the northern lot line of parcel 13. In another transaction in early 1925, the building portion of the parcel was deeded back to Borg by the theater corporation. The rearward parcel, which included 18 feet of lot 19 along the south side of the store building, plus all of lot 20, was deeded by Borg to Walter Hardman in November 1925. At this juncture, no subsequent deed for these two parcels has been located nor is it presently known specifically when the subject parcel was remerged. Nonetheless, based on deed and permit records, it appears that Cecilia and Walter Hardman acquired the overall property in 1925.

The earliest directory listing located for the 2136-2154 San Pablo addresses was a 1923 listing of a barber, R. Mazziotto, at 2148 San Pablo. The 1924 directory listed a Varsity Bakery at 2136 San Pablo and with two associated names, C. B. Davis and H. Kosmale. (cont.)

History (continued):

That bakery remained until c1930 and which use was identified in the 1929 Sanborn map, the first graphic record of this property. The only other use identified in that 1929 map was "paints and oils," which occupied the third and fourth storefronts at the northern half of the building, along with a front store and office that were likely associated with that business, their addresses spanning 2140-2144. That larger space with the two smaller units at the front remains, though no early commercial paint/oil user has been identified.

Based on the this available information, it is understood that the subject building was erected for Lawrence Borg in the first half of 1923 by the contractor C. Texdahl. Additionally, in that same period, the construction news journal, *Building & Engineering News*, listed this store building contract in the January 27 edition. Therein, the architects for the "one-story reinforced concrete (8) store building" were identified as Schirmer Bugbee & Co.

There is no more specific evidence than these several descriptions for the building's original design. Also, there have been multiple alterations, including to the facade and storefronts. The following summarizes the early building permit history (1923-1969):

date	*work, use, address*	*owner/architect/builder*
12/22/23	Alterations, store, #2146	Lawrence Borg/--/--
1/30/35	Alts., tire shop, #2144	E.S. Thompson (lessee)/--/--
1/22/36	Alterations, restaurant, #2146	Cecilia Hardman/--/--
9/13/39	Alterations, store, #2146	J.H. Gaskill/--/--
1/17/1946	Alts., store, #2146	Berkeley Renovating Co.(lessee)/--/same
3/13/1950	Alts., poultry market, #2146	Lloyd L. Baker (lessee)/--/--
2/20/1958	Alts., bar, #2136	Pagones Family/--/Max Scherr
10/29/1963	Alts., Chinese grocery,#2146	Moon Chan (lessee)/--/--
4/15/1966	Add, bar, #2136	Mary Pagones/John A. Bogan/--
6/26/1967	Alts., restaurant, #2146	W. Wish (lessee)/--/--

Miscellaneous permit records additionally record a partial range of specific uses:

year	*use, address*
1935	tire shop, #2144
1958	bar (The Steppenwolf), #2136
1963	grocery, #2146
1963	pet shop (Lucky Dog Pet Shop), #2154
1964	piano repair shop and music studio (Carlisle's Music Room) , #2146
1967	bar (The Zodiac), #2146

Given how few address numbers are utilized in the early permit records, and the predominance of the addresses #2146 and 2136, along with the lack of any reference to #2140, 2142, 2148, 2150 and 2152, it must be that #2146 was generally used as the building address. (cont.)

History (continued):

Architect

William Edward Schirmer (1891-1957) was the son of a San Francisco sea captain who went on to study architecture at San Francisco's Mark Hopkins Institute and who thereafter worked with Willis Polk and then Bugbee and Son. By the early 1920s, Schirmer had his own architectural office in downtown Oakland. Prior to which, Schirmer and Bugbee designed other store buildings in the immediate vicinity including, at the same time as 2136-2154 San Pablo, at 2027-2043 San Pablo.

Significance (continued):

Per the *California Register of Historical Resources* evaluation criteria:

Criterion 1 – Events
Though a range of identified commercial tenants and users may have been of cultural interest, specifically the bars and clubs that occupied the north end of the building in the 1960s-1970s, those former uses are not embodied or expressed in the existing building. Proof of which is an on-line historical plaque entry for one of those former bars and clubs, The Steppenwolf, the entry for which states that the building that housed that bar is no longer standing (@berkeleyplaques.org).

Consequently, as there are no identifiably historic events associated with the subject property, it does not meet CR criterion 1.

Criterion 2 – Persons
The building's developer, Lawrence Borg, was associated with moving picture theaters and, in particular, the Varsity Theater, which he owned and managed for the same period in which he developed and owned the subject building. No other specific information is available for or about Borg. His importance, if any, would be directly related to the theater, not to commercial development, which there is no evidence he pursued elsewhere.

Numerous persons were associated with this building as tenants and subsequent owners. Of interest are the several bars and clubs that leased and occupied several of the spaces in the 1960-1980 period. Per permit records, one – The Steppenwolf – occupied the northernmost unit, no.2136, to which they made the existing rear addition for a kitchen and restrooms in 1967.

Re: 2136 San Pablo, the Berkeley plaque project noted above states:

"In the 1960s it was home of the Steppenwolf bar, a well-known night spot run by local activist Max Scherr… Max Scherr was best known for his *Berkeley Barb*, a counter-cultural New Left voice of everything from politics to sex to rock music that circulated both locally and nationally." (cont.)

Significance (continued):

While Scherr may have been behind the Steppenwolf, in city permit records, the relatively voluminous documentation about the club – the majority, from the perspective of civic officialdom, highly negative, including numerous reports, complaints and violations as well as a contentious permit revocation – identify the applicants and operators as Martin Dangott and Carolyn Ann Silvan, dba The Steppenwolf. Scherr is listed only on the original permit record for the bar, in 1958, as the builder.

Following the closure of The Steppenwolf, c1970, no. 2136 became a "private lodge," Club D'Elegance, operated by "The Elegant East Bay Lounge, Inc.". They also ran afoul of the community and authorities and appear to have also had their use permit revoked c1975.

In that period, there were also other bars and clubs, including the Zodiac at no. 2146 under an operator by the name of William Wish, which permit records indicate operated and made alterations in the 1960s without any use or building permits.

While there may be historical interest related to these several c1960s clubs, they were tenants whose uses have been absent for some 50 years and for which there is no evidence upon which to base a finding of historical importance. Clear proof of which is provided in the historical e-plaque entry for The Steppenwolf, which states that the building that housed that bar is no longer standing: *"On west side of San Pablo Ave., a few blocks south of University Ave., there was once a one-story, nondescript building that is now gone."*

Other persons identifiably associated with this building were its several subsequent owners, While deed searches have not fully succeeded with specifics, permit records appear to identify three owners other than Borg: from c1925-35, Cecilia and W. Hardman; in the late 1930s, J. H. Gaskill; and from c1958 until at least early 2000, George and Mary Pagones/the Pagones family/Nick Pagones.

Subsequent owners lend no identifiable importance to the resource since they were later landlords without direct involvement in the property's historical development.

Thus, as there are no identifiably historic persons associated with the subject property, it does not meet CR criterion 2.

Criterion 3 – Design/Construction
Relative to its c1920 period, the subject building is generally and contextually interesting, in particular its original street-facing architectural façade along with remaining original/early storefronts. While no original permit has been located, based on news reports and County records, the building can be clearly traced to its origins, including identification of the original developer/owner, architect and builder. While many changes have been made to the building, outside and in, physical evidence of the building's original/early design and construction remains. (cont.)

Significance (continued):

Architecturally, the subject building as a whole is a non-descript rectangular concrete box. Yet, generally, the largely intact, elongated façade and partially intact storefront designs are distinctive of their c1920 period. Altogether providing a sufficient basis for a finding of historical significance under California Register criterion 3.

Alternatively, the original architects, Schirmer and Bugbee, have not been identified as having historical importance, nor is any artistry in evidence.

In conclusion, the subject building meets CR criterion 3 as its architecture embodies distinctive characteristics of its type and period.

Criterion 4 – Relative to potential historic architectural resources, the subject property has not yielded and at this juncture, beyond the contents of this report, does not appear to have any potential to yield additional information of any historical importance.

In conclusion, the subject building at 2136-2154 San Pablo Ave. in Berkeley has potential historical architectural significance per California Register criterion 3.

APPENDIX C:

Ground-Penetrating Radar (GPR) Survey Report

Archaeological Ground-Penetrating Radar Survey at 2136-2154 San Pablo Avenue, Berkeley, California.

Scott Byram, Ph.D.

Byram Archaeological Consulting, LLC, El Cerrito, CA

June 30, 2022

Prepared for Evans and De Shazo, Inc., Sebastopol, CA

In coordination with Sally Evans of Evans and De Shazo, Inc., archaeologist Scott Byram, of Byram Archaeological Consulting, LLC, used ground-penetrating radar (GPR) to identify potential archaeological features within the focal lot at 2136-2154 San Pablo Avenue in Berkeley. Gravel paved areas and exterior concrete slabs were surveyed using standard archaeological GPR techniques. All parking spaces were vacated during the course of the survey, resulting in comprehensive coverage of open areas. At the periphery heavily vegetated areas and deck covered areas were not accessible. The archaeological ground-penetrating radar (GPR) survey was conducted on June 13, 2022 at this property. The focus was to identify and delineate potential archaeological features not visible on the paved surface. [redacted]

Byram Archaeological Consulting surveyed a total of three GPR grids of varying size over the course of one day's fieldwork to characterize potential buried features and stratigraphy (see project map).

A total of 110 individual transect data files were collected. The GPR fieldwork was conducted by Scott Byram and one assistant. Techniques used are described at www.featuresurvey.com, and in Byram and Sunseri (2021), Sunseri and Byram (2018), Byram et al (2018), Sanchez et al. (2021) and Conyers (2012). A GSSI SIR4000 GPR instrument was used, along with a 350 MHz digital antenna to allow for maximum resolution at depth. The measured grids were set up with perimeter chalk marks and guide string to allow for parallel, evenly spaced transects at 50 cm intervals. Amplitude slice maps (multicolor images) were generated for each of the four grids using current GPR Slice software. Transect profile "radargram" images were generated with GPR Viewer software, and these profiles appear in gray scale. In this report, potential archaeological findings are presented for each grid.

Note that this was not a utilities or hazards GPR survey. An assessment of possible utilities or hazards should be made before excavating any of the potentially archaeological features described in this report. Buried utilities are expected to be present on the property. Examples of these utilities are discussed but not fully assessed in this report. High amplitude linear features indicated in the GPR data are likely utility trenches. Some of the buried utilities may be gas and pipes, electrical line, sewer pipes, and water lines. Archived data for this survey is available upon request for analysis by civil engineers with GPR expertise. Neither is geophysical hazard assessment a part of this study, but these data are also available to the client if needed for hazards assessment by a qualified geophysicist. Data processing for these needs may require access to proprietary software, but open source software is available for examining the .dzt files generated with the GSSI equipment.

This report includes a summary of overall archaeological findings, a survey area map showing all GPR grids, and enlargements of slice maps showing buried features such as likely utility trenches. During GPR survey at the San Pablo Ave. property, grids were mapped relative to existing structures and fence lines.

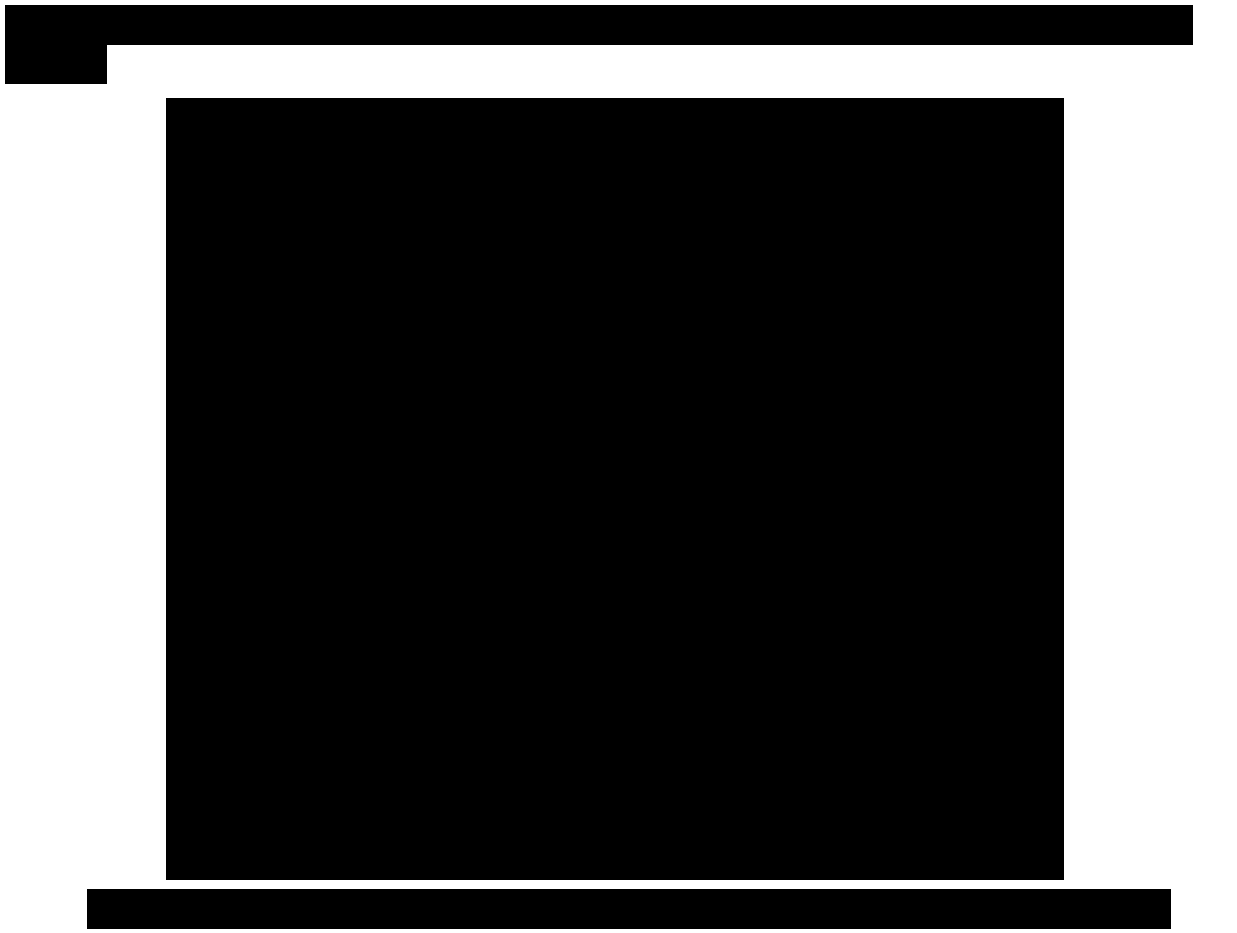
While GPR is very useful for identifying archaeological features and strata (Conyers 2021; Byram and Sunseri 2021), there are limitations to the technique based on equipment, soil conditions, pavement, buried utilities, and other site variability such as artifact size and dispersal. Byram Archaeological makes its best effort to identify archaeological site materials and uses state of the art equipment and techniques, but for any project there is no guarantee that a given feature or stratum will be identified.



Figure 1: View of GPR equipment at 0/0 start corner for Grid 1 at 2136 San Pablo Ave. Grid 3 is visible through the gate at the upper right.

Archaeological Findings by Area

[redacted]



















Summary

Authorship

Scott Byram, Ph.D. is a registered, professional archaeologist and a research affiliate at the University of California, Berkeley Archaeological Research Facility. He has conducted GPR surveys since 2009 within the U.S. and abroad, with the majority of his projects in California. In 2006 he established Byram Archaeological Consulting, LLC in Oregon and the firm is now based in El Cerrito, California. In addition to numerous reports on California GPR research Byram regularly publishes academic journal articles on this archaeological scanning technique (e.g. Sanchez et al. 2021; Byram et al. 2018; Sunseri and Byram 2017). For more information about Scott Byram's previous GPR projects and landscape archaeology see pages at www.featuresurvey.com and https://berkeley.academia.edu/ScottByram.

References Cited

Byram, Scott, and Jun Ueno Sunseri
2021 Principles and Practice of Investigating Buried Adobe Features with Ground-Penetrating Radar. *Remote Sensing* 13(24):4980 by Scott Byram and Jun Ueno Sunseri. https://www.mdpi.com/2072-4292/13/24/4980/htm

Byram, Scott, Kent Lightfoot, Rob Q. Cuthrell, Peter Nelson, Jun Sunseri, Roberta A. Jewett, E. Breck Parkman, Nicholas Tripcevich
2018 Geophysical Investigation of Mission San Francisco Solano, Sonoma, California. *Historical Archaeology*

Conyers, Lawrence B.
2012 *Interpreting Ground-Penetrating Radar for Archaeology*. Left Coast Press, Walnut Creek, CA

Evans, Sally
2022 *Results of a Cultural Resource Study for the Proposed Project at 2136-2154 San Pablo Avenue, Berkeley, County of Alameda, California*. Evans and De Shazo, Inc., Sebastopol, CA.

Sanchez, G.M.; Grone, M.A.; Apodaca, A.J.; Byram, R.S.; Lopez, V.; Jewett, R.A.
2021 Sensing the Past: Perspectives on Collaborative Archaeology and Ground Penetrating Radar Techniques from Coastal California. Remote Sensing 13, 285. https://doi.org/10.3390/rs13020285

Sunseri, Jun, and Scott Byram
2017 Site Interiography and Geophysical Scanning: Interpreting the Texture and Form of Archaeological Deposits with Ground-Penetrating Radar. *Journal of Archaeological Method and Theory*. On line at http://rdcu.be/pwM5

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code
Reviewer
Date

Page 1 **of** 9 ***Resource Name or #:** 2136-2154 San Pablo Avenue
P1. Other Identifier: None

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**
***a. County** Alameda **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Oakland West **Date** 1993 **Township & Range** --
c. Address 2136-2154 San Pablo Ave. City Berkeley Zip 94710
d. UTM: Zone __, _____ mE/ _____ mN
e. Other Locational Data:
Assessor's Parcel Number 56-1977-11-1

***P3a. Description:**

2136-2154 San Pablo Ave. is a single-story commercial building, eight storefront bays wide and occupying a parcel filling almost one-half of the central-southern portion of its block front. The subject building is a rectangular (approx. 150 feet wide by 60 feet deep), concrete-walled structure with a low-slope, wood-framed roof. Its front is a series of framed storefront bays consisting of nine equally spaced piers, between which are the eight storefronts, with a continuous spandrel above. (cont.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

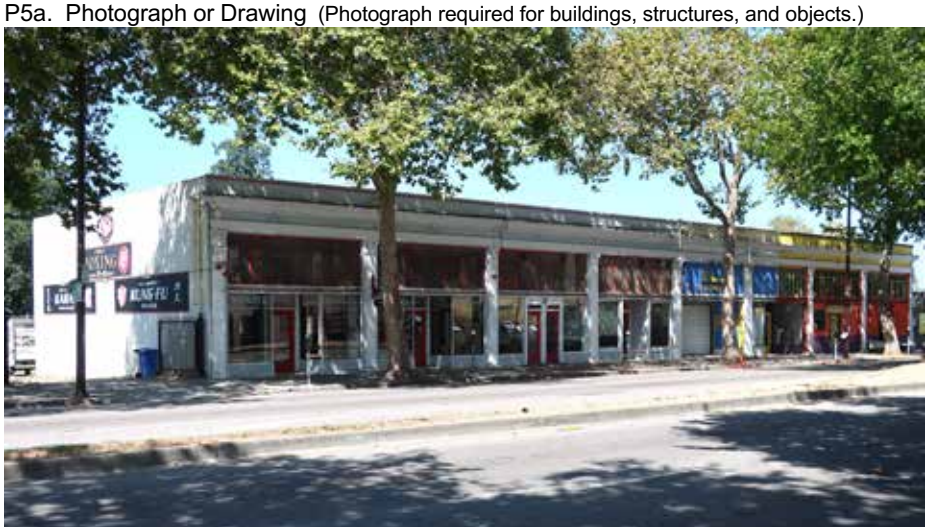


Fig.1 – 2136-2154 San Pablo Ave., front view (looking west)

***P3b. Resource Attributes:**
HP6: 1-3 story commercial building
***P4.ResourcesPresent:** ■ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other
P5b. Description of Photo:
fig.1)MH,2019;
fig.2)Sanborn map,c1981;
figs.3-4)MH,2019;
***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both
1923, Completion Notice

***P7. Owner and Address:**
Milton & Gary Pagonis
14450 Black Walnut Ct.
Saratoga, CA 95070

***P8. Recorded by:**
Mark Hulbert
446 17th St. #302
Oakland, CA 94612

P9. Date Recorded:
October 23, 2019
***P10. Survey Type:** (Describe)
Intensive
***P11. Report Citation**:
None

***Attachments:** ☐NONE ☐Location Map ■Continuation Sheet ■Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** 2136-2154 San Pablo Avenue, Berkeley ***NRHP Status Code**
Page 2 **of** 9

B1. Historic Name: none
B2. Common Name: 2136-2154 San Pablo Avenue
B3. Original Use: Commercial/Stores B4. Present Use: same
***B5. Architectural Style:** Beaux Arts commercial block
***B6. Construction History:**

When first mapped, the northern portion of the subject block stood in the Berkeley Land and Town Improvement Association (BLTIA) Tract B and the southern approx. one-third, inclusive of the subject parcels, in the Allston Tract. The property and its building occupy original lots 13-19 of block 101 of the Allston Tract, which was first recorded in 1890. (cont.)

***B7. Moved?** ■No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:** None
B9a. Architect: Schirmer Bugbee & Co. b. Builder: C. Texdahl
***B10. Significance: Theme** Commercial development **Area** Berkeley
Period of Significance 1923 **Property Type** Commercial **Applicable Criteria** CR3

The architectural style exhibited at the building's front is Beaux Arts commercial, with storefronts enframed by cast ornamentation consisting of Corinthian style pilasters crowned with a molded entablature with, in the flat wall segment above the crown, applied garlands centered above each pilaster, the entablature completed by the molded projecting cornice, spanned by a parapet with its own molded cap (cont.)

B11. Additional Resource Attributes: none

***B12. References:**

Alameda County/Oakland directories – 1910-1974; Sanborn Maps – 1929, 1950, c1981;
Alameda County Assessor's records, 1919-1940; City of Berkeley permit records.

B13. Remarks:
***B14. Evaluator:** Mark Hulbert Preservation Architect
***Date of Evaluation:** October 23, 2019

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

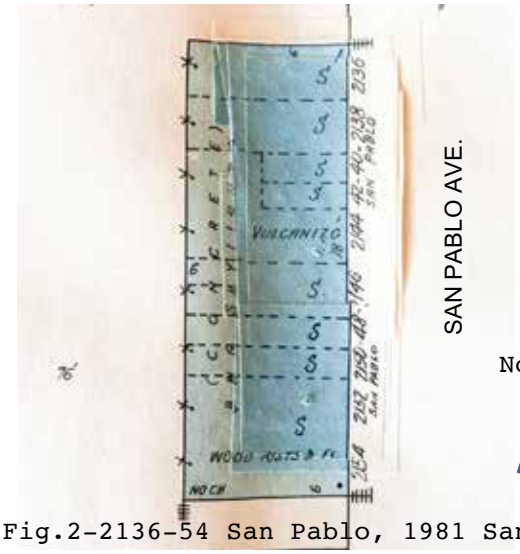


Fig.2-2136-54 San Pablo, 1981 Sanborn

Description (continued):

The materials appear to be a mix of flat cement plaster finishes with cast ornamentation, presumably terra cotta, although the exterior has been painted numerous times, so the exact cast material is not in evidence. The ornamentation lends the building architectural character. It consists of Corinthian style pilasters crowned with a molded entablature with, in the flat wall segment above the crown, applied garlands centered above each pilaster, the entablature completed by the molded projecting cornice, spanned by a parapet with its own molded cap.

The eight storefronts are each in two vertical parts, with a sub-spandrel from pier-to-pier, below which are the storefronts with, corresponding to a mezzanine, transoms. The spandrels are mostly open at their faces, presumably for electrical and signage, and appear to be wood construction. The four southern storefronts also appear to be largely original/early, though with some alteration, whereas the four northern ones have evidently been modified, at least at the storefront level yet including several of the transoms. Identifiable original/early storefront elements include steel sash fixed storefront windows and semi-operable transom windows. Four of the eight storefronts have central recessed entry ways with canted side windows, marble mosaic tile exterior landings, paneled wood ceilings, wood and glass panel entry doors. One of these entries has two side-by-side entry doors and, thus, a wider vestibule with narrower storefront windows. A fifth storefront also has a recessed entry with the tile floor and wood ceiling, yet its storefront is board and batten, not windows, and its door solid wood. The adjacent storefront also has a board and batten exterior as well as a multi-lite entry door flush to the building front. A seventh storefront has two doors at the face of wall, without a vestibule. Finally, one of the central storefronts is fully recessed with a recessed, roll-up door. That bay is also the only one without any remnant of transom windows, which all four of the southern storefronts and the two northern storefronts retain, plus a partially retained transom in another bay. The surviving transom windows are thirteen lites wide by two lites high, the upper lites small and the lower lites tall.

The building is set back from its side lot lines, some eight feet at the north, where there is a gated service area and the partial front of a rearward addition. The setback at the south is some twenty feet, where there is a paved driveway to the rear of the lot, which is largely open. At the rear, north end, a rear addition was appended to the 2136 San Pablo shop in 1966. That addition is a plain, wood framed, stucco clad box. An open tent abuts the rear of the building at its center, corresponding to the auto repair business at no. 2144. Otherwise, there are single rear doors with wooden stoops at each of the shops at the southern end of the building. (cont.)

Description (continued):



Fig.3 – 2136-2154 San Pablo Ave., front (looking north)



Fig.4 – 2136-2154 San Pablo Ave., Rear (looking north)

History (continued):

The range of assigned addresses number ten. Presumably, from its origins, several of the building's eight bays were subdivided into two commercial spaces, which divisions partially remain. However, original and current addresses do not correspond and several original addresses are not currently in use, including no. 2136.

No original building permit records exist. The earliest such record is a December 1923 permit application for alterations to the interior and storefront at the address 2146 San Pablo, by the building's then owner, Lawrence Borg.

Under Borg's name, Alameda County Assessor's records include a Notice of Completion for a "class "c" reinforced concrete 8 story [sic] building" on a lot on the west side of San Pablo 75 feet north of Allston Way. That notice was dated the 19th of June 1923 and which also identified that the construction contract was filed on the 24th of January, along with the identity of the contractor, C. Texdahl.

Borg was then the owner and manager of the Varsity Theater at 2024 San Pablo, one block north of the subject building. A Wikipedia entry for the Varsity acknowledges Borg's then ownership and noted that he also owned a parcel one block to its south, where he had intended to build a larger theater.

At that time, Borg's holdings on the subject block included lots 13-20, thus the 75 foot measurement noted above, which was to the southeast corner of lot 20. He acquired lots 13-20 of block 101 in May of 1922 from two couples, Charles W. and Ruby M. Brock and Ray O. and Dora Bradley Long. Following the development of the 2136-2154 San Pablo Ave. stores, in December 1924, Borg transferred his ownership to a corporation, West Berkeley Theatres, Inc., in which he was listed as the vice president under the president, R. A. McNeil. At that juncture, the parcel, consisting of lots 13-20, was segregated into convoluted front and rear portions. Thus, confusingly, that 1924 deed was specifically for a portion of lots 13-19 measuring 55.9 ft. by 149.9 ft., which appears to correspond to the subject store building's footprint plus 8 feet at its northern end to the northern lot line of parcel 13. In another transaction in early 1925, the building portion of the parcel was deeded back to Borg by the theater corporation. The rearward parcel, which included 18 feet of lot 19 along the south side of the store building, plus all of lot 20, was deeded by Borg to Walter Hardman in November 1925. At this juncture, no subsequent deed for these two parcels has been located nor is it presently known specifically when the subject parcel was remerged. Nonetheless, based on deed and permit records, it appears that Cecilia and Walter Hardman acquired the overall property in 1925.

The earliest directory listing located for the 2136-2154 San Pablo addresses was a 1923 listing of a barber, R. Mazziotto, at 2148 San Pablo. The 1924 directory listed a Varsity Bakery at 2136 San Pablo and with two associated names, C. B. Davis and H. Kosmale. (cont.)

History (continued):

That bakery remained until c1930 and which use was identified in the 1929 Sanborn map, the first graphic record of this property. The only other use identified in that 1929 map was "paints and oils," which occupied the third and fourth storefronts at the northern half of the building, along with a front store and office that were likely associated with that business, their addresses spanning 2140-2144. That larger space with the two smaller units at the front remains, though no early commercial paint/oil user has been identified.

Based on the this available information, it is understood that the subject building was erected for Lawrence Borg in the first half of 1923 by the contractor C. Texdahl. Additionally, in that same period, the construction news journal, *Building & Engineering News*, listed this store building contract in the January 27 edition. Therein, the architects for the "one-story reinforced concrete (8) store building" were identified as Schirmer Bugbee & Co.

There is no more specific evidence than these several descriptions for the building's original design. Also, there have been multiple alterations, including to the facade and storefronts. The following summarizes the early building permit history (1923-1969):

date	*work, use, address*	*owner/architect/builder*
12/22/23	Alterations, store, #2146	Lawrence Borg/--/--
1/30/35	Alts., tire shop, #2144	E.S. Thompson (lessee)/--/--
1/22/36	Alterations, restaurant, #2146	Cecilia Hardman/--/--
9/13/39	Alterations, store, #2146	J.H. Gaskill/--/--
1/17/1946	Alts., store, #2146	Berkeley Renovating Co.(lessee)/--/same
3/13/1950	Alts., poultry market, #2146	Lloyd L. Baker (lessee)/--/--
2/20/1958	Alts., bar, #2136	Pagones Family/--/Max Scherr
10/29/1963	Alts., Chinese grocery,#2146	Moon Chan (lessee)/--/--
4/15/1966	Add, bar, #2136	Mary Pagones/John A. Bogan/--
6/26/1967	Alts., restaurant, #2146	W. Wish (lessee)/--/--

Miscellaneous permit records additionally record a partial range of specific uses:

year	*use, address*
1935	tire shop, #2144
1958	bar (The Steppenwolf), #2136
1963	grocery, #2146
1963	pet shop (Lucky Dog Pet Shop), #2154
1964	piano repair shop and music studio (Carlisle's Music Room) , #2146
1967	bar (The Zodiac), #2146

Given how few address numbers are utilized in the early permit records, and the predominance of the addresses #2146 and 2136, along with the lack of any reference to #2140, 2142, 2148, 2150 and 2152, it must be that #2146 was generally used as the building address. (cont.)

History (continued):

Architect

William Edward Schirmer (1891-1957) was the son of a San Francisco sea captain who went on to study architecture at San Francisco's Mark Hopkins Institute and who thereafter worked with Willis Polk and then Bugbee and Son. By the early 1920s, Schirmer had his own architectural office in downtown Oakland. Prior to which, Schirmer and Bugbee designed other store buildings in the immediate vicinity including, at the same time as 2136-2154 San Pablo, at 2027-2043 San Pablo.

Significance (continued):

Per the *California Register of Historical Resources* evaluation criteria:

Criterion 1 – Events
Though a range of identified commercial tenants and users may have been of cultural interest, specifically the bars and clubs that occupied the north end of the building in the 1960s-1970s, those former uses are not embodied or expressed in the existing building. Proof of which is an on-line historical plaque entry for one of those former bars and clubs, The Steppenwolf, the entry for which states that the building that housed that bar is no longer standing (@berkeleyplaques.org).

Consequently, as there are no identifiably historic events associated with the subject property, it does not meet CR criterion 1.

Criterion 2 – Persons
The building's developer, Lawrence Borg, was associated with moving picture theaters and, in particular, the Varsity Theater, which he owned and managed for the same period in which he developed and owned the subject building. No other specific information is available for or about Borg. His importance, if any, would be directly related to the theater, not to commercial development, which there is no evidence he pursued elsewhere.

Numerous persons were associated with this building as tenants and subsequent owners. Of interest are the several bars and clubs that leased and occupied several of the spaces in the 1960-1980 period. Per permit records, one – The Steppenwolf – occupied the northernmost unit, no.2136, to which they made the existing rear addition for a kitchen and restrooms in 1967.

Re: 2136 San Pablo, the Berkeley plaque project noted above states:

"In the 1960s it was home of the Steppenwolf bar, a well-known night spot run by local activist Max Scherr… Max Scherr was best known for his *Berkeley Barb*, a counter-cultural New Left voice of everything from politics to sex to rock music that circulated both locally and nationally." (cont.)

Significance (continued):

While Scherr may have been behind the Steppenwolf, in city permit records, the relatively voluminous documentation about the club – the majority, from the perspective of civic officialdom, highly negative, including numerous reports, complaints and violations as well as a contentious permit revocation – identify the applicants and operators as Martin Dangott and Carolyn Ann Silvan, dba The Steppenwolf. Scherr is listed only on the original permit record for the bar, in 1958, as the builder.

Following the closure of The Steppenwolf, c1970, no. 2136 became a "private lodge," Club D'Elegance, operated by "The Elegant East Bay Lounge, Inc.". They also ran afoul of the community and authorities and appear to have also had their use permit revoked c1975.

In that period, there were also other bars and clubs, including the Zodiac at no. 2146 under an operator by the name of William Wish, which permit records indicate operated and made alterations in the 1960s without any use or building permits.

While there may be historical interest related to these several c1960s clubs, they were tenants whose uses have been absent for some 50 years and for which there is no evidence upon which to base a finding of historical importance. Clear proof of which is provided in the historical e-plaque entry for The Steppenwolf, which states that the building that housed that bar is no longer standing: *"On west side of San Pablo Ave., a few blocks south of University Ave., there was once a one-story, nondescript building that is now gone."*

Other persons identifiably associated with this building were its several subsequent owners, While deed searches have not fully succeeded with specifics, permit records appear to identify three owners other than Borg: from c1925-35, Cecilia and W. Hardman; in the late 1930s, J. H. Gaskill; and from c1958 until at least early 2000, George and Mary Pagones/the Pagones family/Nick Pagones.

Subsequent owners lend no identifiable importance to the resource since they were later landlords without direct involvement in the property's historical development.

Thus, as there are no identifiably historic persons associated with the subject property, it does not meet CR criterion 2.

Criterion 3 – Design/Construction
Relative to its c1920 period, the subject building is generally and contextually interesting, in particular its original street-facing architectural façade along with remaining original/early storefronts. While no original permit has been located, based on news reports and County records, the building can be clearly traced to its origins, including identification of the original developer/owner, architect and builder. While many changes have been made to the building, outside and in, physical evidence of the building's original/early design and construction remains. (cont.)

Significance (continued):

Architecturally, the subject building as a whole is a non-descript rectangular concrete box. Yet, generally, the largely intact, elongated façade and partially intact storefront designs are distinctive of their c1920 period. Altogether providing a sufficient basis for a finding of historical significance under California Register criterion 3.

Alternatively, the original architects, Schirmer and Bugbee, have not been identified as having historical importance, nor is any artistry in evidence.

In conclusion, the subject building meets CR criterion 3 as its architecture embodies distinctive characteristics of its type and period.

Criterion 4 – Relative to potential historic architectural resources, the subject property has not yielded and at this juncture, beyond the contents of this report, does not appear to have any potential to yield additional information of any historical importance.

In conclusion, the subject building at 2136-2154 San Pablo Ave. in Berkeley has potential historical architectural significance per California Register criterion 3.