Berkeley City College 2118 Milvia Street Project

Initial Study – Mitigated Negative Declaration

prepared by

Peralta Community College District
333 E 8th Street
Oakland, California 94606
Contact: Atheria Smith, Acting Vice Chancellor of General Services

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

June 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Table of Contents

Tables

Figures

Appendices

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Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACTC	Alameda County Transportation Commission
AC Transit	Alameda County Transit
AEP	Association of Environmental Professionals
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BCCHD	Berkeley Civic Center Historic District
BFD	Berkeley Fire Department
BMP	best management practices
CalEEMod	California Emissions Estimator Model
CalGreen	California Green Building Standards Code
CalOSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
CRHR	California Register of Historical Resources
CWA	Clean Water Act
DAP	Downtown Area Plan
dB	decibel
dBA	A-weighted decibel
DMU	Downtown Mixed Use

DPM	diesel particulate matter
DSA	Division of the State Architect
DTSC	California Department of Toxic Substances Control
EBCE	East Bay Community Energy
EBMUD	East Bay Municipal Utility District
EDR	Environmental Data Resources, Inc.
EMFAC	Emission Factor
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	greenhouse gas
GPD	gallons per day
GWh	gigawatt-hours
Hz	hertz
I-80	Interstate 80
I-580	Interstate 580
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent noise level
LID	Low Impact Development
LUST	Leaking Underground Storage Tank
MGD	million gallons per day
$\mu g/m^3$	micrograms per cubic meter
MRP	Municipal Regional Stormwater Permit
MT	metric tons
MTC	Metropolitan Transportation Commission
MWh	megawatt hours
N_2O	nitrous oxides
NAHC	Native American Heritage Commission
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPR	Governor's Office of Planning and Research
PCB	polychlorinated biphenyls

PG&E	Pacific Gas and Electric Company
$PM_{2.5}$	particulate matter smaller than 2.5 microns in diameter
PM_{10}	particulate matter smaller than 10 microns in diameter
PPV	peak particle velocity
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RMS	root-mean-square vibration
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SIP	State Implementation Plan
SO_2	sulfur dioxide
SVP	Society of Vertebrate Paleontology
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TAZ	transportation analysis zone
UCMP	University of California Museum of Paleontology
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
vph	vehicles per hour
WELO	Model Water Efficient Landscape Ordinance

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Initial Study

The Peralta Community College District (District), as the Lead Agency, prepared this Initial Study for the Berkeley City College 2118 Milvia Street Project ("proposed project" or "project") in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et. seq.).

These introductory sections describe the proposed project, including the project proponent, the project site and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

1. Project Proponent and Lead Agency

Peralta Community College District
333 E 8th Street
Oakland, California 94606
Contact: Atheria Smith, Acting Vice Chancellor of General Services, (510) 466-7346, atheriasmith@peralta.edu

2. Project Location

The project site is at 2118 Milvia Street, on the northwest corner of Milvia Street and Center Street in the City of Berkeley (Assessor's Parcel Number 57-2022-5-1). The site is regionally accessible from state routes 13, 24, and 123, and from Interstate 80 (I-80) and Interstate 580 (I-580). It is locally accessible from Shattuck Avenue, Martin Luther King Jr. Way, and University Avenue. Figure 1 shows the regional location of the project site, and Figure 2 shows the site location in its neighborhood context.

3. Existing Site Characteristics

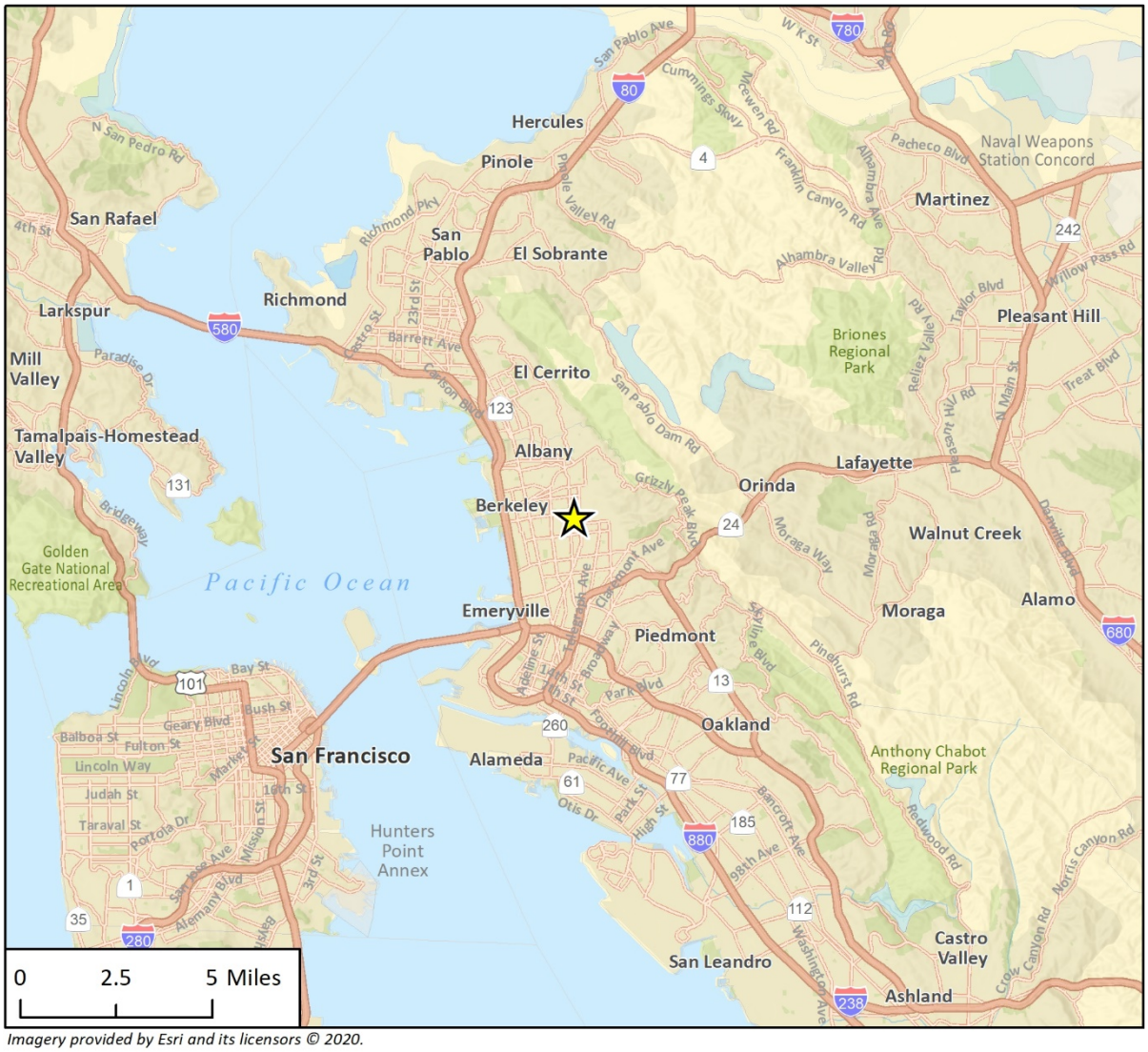
Current Land Use Designation and Zoning

The District is not subject to local land use and zoning designations; however, the City of Berkeley designations for the site are provided for informational purposes. The project site has a City of Berkeley General Plan land use designation of Downtown and is within the "Buffer" portion of the Downtown Area Plan (DAP). The site is zoned C-DMU Buffer (Downtown Mixed Use), as defined by the City's Zoning Ordinance. Uses permitted in the C-DMU Buffer Zone include a wide range of retail, office, commercial, and residential uses.

Project Site Conditions

The project site is a rectangular, generally level, 0.26-acre parcel developed with a 25,000-square foot, three-story office building that covers roughly the entire site. The structure was occupied previously by the City of Berkeley, which used it for municipal office space. The structure is currently vacant. Figure 3 shows photographs of the existing structure on the project site.

Figure 1 Regional Location



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Project Location

N

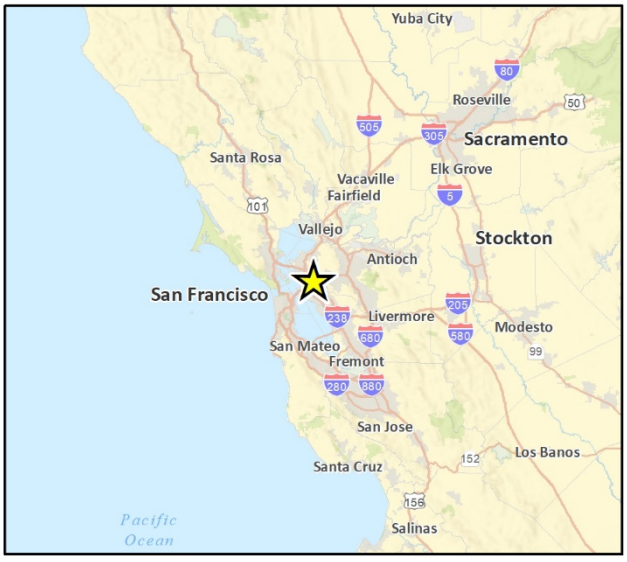


Figure 2 Project Site Location

Imagery provided by Microsoft Bing and its licensors © 2020.

Fig 2 Project Location

Figure 3 Site Photographs

Photo 1. View of project site looking northeast from across Center Street.

Photo 2. View of project site looking northwest from the Milvia Street and Center Street intersection.

Surrounding Land Uses

The project site is in Downtown Berkeley, a neighborhood characterized by a mix of commercial, institutional, and multi-family residential development. The site is directly bordered by commercial development to the north and east and municipal and public structures to the west and south. Milvia Street bounds the site to the east and Center Street to the south. There is a seven-story commercial structure across Milvia Street to the east, a six-story structure (Berkeley City offices) immediately west of the site, a five-story structure (Berkeley City Hall) across Center Street to the south of the site, and a parking lot with a three-story commercial structure north of the site. Civic Center Park is across Center Street to the southwest. The main Berkeley City College structure is one-half-block west, on the south side of Center Street. Off-street parking is available in the Center Street parking garage located in the middle of the block immediately east of the site, as well as south and east of the existing Berkeley City College building at 2000 Center Street. The nearest residential uses include a mixed use retail and residential building at 2000 Addison Street, 100 feet northeast of the project site; an apartment building under construction at 1950 Addison Street, 150 feet northwest of the project site; and the Addison Arts Apartments at 1935 Addison Street, 180 feet northwest of the project site.

4. Project Characteristics

Background

In 2018, Berkeley City College inventoried its existing instructional space at 2050 Center Street and 2000 Center Street (leased annex). The College aims to locate a full complement of activities in a new structure at 2118 Milvia Street, such that the 2000 Center Street annex is no longer required. The College had an enrollment of 1,491 full-time equivalent students in fall 2020, compared to 1,544 full-time equivalent students in fall 2019 (Peralta Community College District 2020).[1]

The proposed project is funded by local bond measures A and G. Approved by the voters in 2006, Measure A allows the District to issue and sell bonds of up to $390 million. Approved by the voters in November 2018, Measure G allows the District to issue and sell bonds up to $800 million. The proposed project is among the permissible projects listed on both the Measure A and Measure G project lists.

Project Description

The proposed project would involve demolition of the existing structure at 2118 Milvia Street and construction of a new six-story structure as part of Berkeley City College. The proposed structure would have a total floor area of approximately 38,000 assignable square feet[2] of:

- general education facilities (anthropology lab, art studio, classrooms, communications lab, and storage),
- faculty facilities (offices and support),
- administrative offices (offices, reception area, storage, workrooms, workstations),
- outdoor meeting area (rooftop patio, staging, and storage),

[1] This decrease in enrollment may be attributed in part to the COVID-19 pandemic.
[2] Also defined as usable square feet, per the Berkeley City College Master Plan (Berkeley City College 2009).

- student services and learning communities (health center, mental wellness, veterans center, multicultural resource center, undocumented community resource center, bookstore, student lounge, and meeting/quiet rooms),
- learning resource center (offices, study area, open area, computer lab, and storage),
- building services (building entrance and operations), and
- informal meeting and gathering space on each floor.

The proposed structure would be 90 feet in height to the top of the roof, with an additional 15 feet to the top of the solar panels. Table 1 summarizes the project's characteristics. Table 2 summarizes the proposed changes from the existing footprint and height to the proposed footprint and height. Figure 4 through Figure 10 show proposed floor plans, including rooftop plans.

Table 1 Proposed Project Characteristics

Address	2118 Milvia Street
Assessor's Parcel Number	57-2022-5-1
Height/Stories	90 feet, plus 15 feet for rooftop solar panels (6 stories above grade, plus rooftop patio)
Lot Area	11,326 square feet (0.26 acre)
Structure Footprint	10,000 square feet
Total Floor Area[1]	38,000 square feet
Ground Floor[2]	6,100 square feet; loading dock, bookstore, lounge/gallery, general classroom, main entrance, offices, storage, bicycle parking, building support
2nd Floor[2]	6,700 square feet; computer lab/classroom, classroom/communication lab, general classroom, Learning Resource Center, offices, building support
3rd Floor[2]	6,800 square feet; anthropology classroom, 5 general classrooms, building support
4th Floor[2]	6,800 square feet; 2 art studios, 3 general classrooms, building support
5th Floor[2]	6,600 square feet; health center, veterans center, mental wellness, undocumented community resource center, multicultural center, general classroom, building support
6th Floor[2]	5,900 square feet; faculty offices, conference center, mail/copy room, building support
Rooftop[2]	6,800 square feet; planting, rooftop patio, mechanical/building support, solar panels

[1] The total floor area does not include rooms housing building operating equipment or machinery rooms, stairways or elevator shafts, bathrooms, or areas outside the surrounding walls of the structure.

[2] The floor square footages do not include stairways or elevator shafts but do include rooms housing building operating equipment or machinery rooms.

Source: Berkeley City College Campus Expansion Diagram Plans (2020)

Table 2 Differences Between Existing and Proposed Structures

	Existing Development	Proposed Project	Change
Massing	25,000 square feet	60,000 square feet	+35,000 square feet
Height	3 stories, 45 feet	6 stories, 90 feet, plus 15 feet for rooftop solar panels and mechanical room	+45 feet, with additional 15 feet for solar panels

Figure 4 Proposed Site Plan – Floor 1

Source: Berkeley City College, 2020

Figure 5 Proposed Site Plan – Floor 2

Source: Berkeley City College, 2020

Figure 6 Proposed Site Plan – Floor 3

Source: Berkeley City College, 2020

Figure 7 Proposed Site Plan – Floor 4

Source: Berkeley City College, 2020

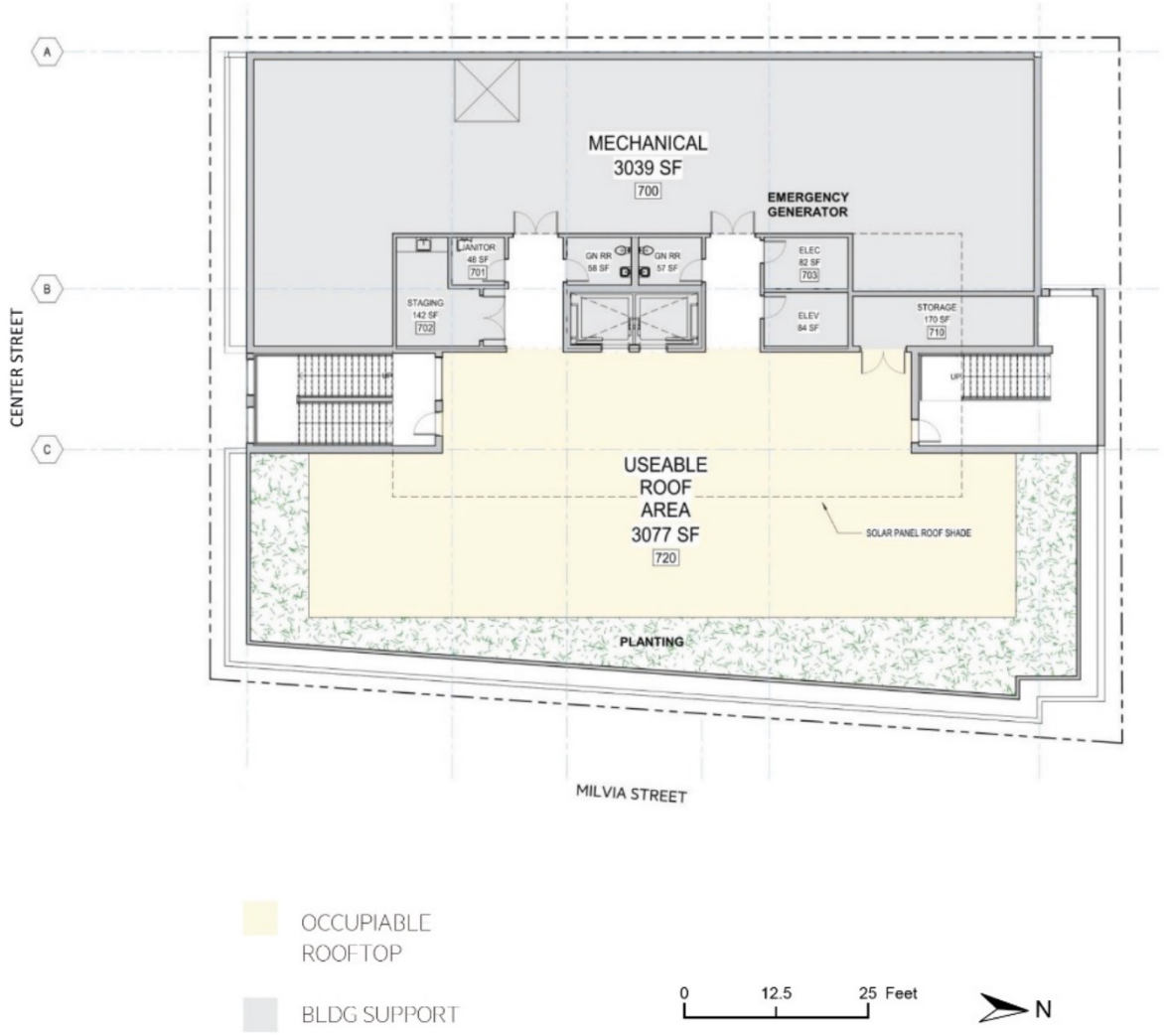
Figure 8 Proposed Site Plan – Floor 5

Source: Berkeley City College, 2020

Figure 9 Proposed Site Plan – Floor 6

Source: Berkeley City College, 2020

Figure 10 Proposed Site Plan – Rooftop



Source: Berkeley City College, 2020

Enrollment and Class Schedule

Designed to provide classroom space and educational facilities to accommodate existing and projected student enrollment, the proposed project would support the projected annual increase in student population of 2.4 percent per year. Classes would be scheduled at similar times as the existing Berkeley City College campus, with classes occurring Monday through Saturday year-round. Weekday daytime classes typically begin no earlier than 8:00 a.m. and typically end around 5:00 p.m. Weekday evening classes typically end no later than 9:50 p.m. The College also holds some Saturday classes between 9:00 a.m. and 5:20 p.m.

Parking and Site Access

The proposed project would not include on-site vehicle parking, similar to existing conditions at the site. Bicycle parking is proposed on the building's first floor adjacent to the main entrance (see Figure 4). No modifications to existing street parking are proposed. Pedestrians would access the building from double-door entrances on Milvia Street and doors to the two proposed stairwells at the northeast corner of the site along Milvia Street and center of the site along Center Street.

The project would also include a first-floor loading dock accessed by a new curb cut and roll up door for occasional deliveries and trash collection, and a pedestrian door on Center Street, at the southwest corner of the project site. Additionally, the electrical facility room on the first floor would be accessed from double doors facing Center Street.

The project site is located in close proximity to existing transit facilities and facilities supporting alternative transportation modes such as walking and biking. The site is within walking distance of several bus stops for AC Transit, including stops for routes 18, 51B, 52, 65, 67, 79, 88, 800, and F, as well as the Downtown Berkeley BART station.

Utilities

The project would include utility connections for water, wastewater, stormwater drainage, power, and telecommunications services in accordance with requirements of applicable utility providers. These utilities would connect to existing infrastructure near the site. Pacific Gas and Electric Company (PG&E) and East Bay Community Energy (EBCE) would provide electrical service; East Bay Municipal Utility District (EBMUD) would provide water service; the City of Berkeley would provide stormwater, wastewater, and solid waste services. The project would not use natural gas or connect to natural gas infrastructure. The project would rely on existing public services, including but not limited to, City of Berkeley police and fire protection and parks and open spaces provided by the City of Berkeley, East Bay Regional Parks District, the County of Alameda, and the State of California.

The project would also include an on-site emergency generator on the sixth floor of the building, in the mechanical equipment area. The generator would be located within a Level 2 sound attenuation enclosure and tested for approximately 30 minutes each month per National Fire Protection Association standards.

Construction and Grading

Project construction is expected to occur over approximately 30 months. Demolition (3 months), site preparation (1.5 months), and grading (1.5 months) would occur over a total of approximately six months. Building construction (including architectural coating and asphalt paving) would occur over approximately 24 months. Project construction would not occur on Sundays or holidays. The maximum depth of excavation would be approximately 5 feet, and the total amount of exported soil

associated with excavation would be approximately 1,500 cubic yards. Depending on the outcome of geotechnical investigations, a deep foundation system may be required. If required, the project would consider alternative construction methods, such as drilled piers to reduce vibration-intensive or noise-intensive equipment.

Green Building Features

The project would include the installation of solar panels on the roof, which would also partially shade the rooftop patio. In addition, the project would allow for convenient use of public transit due to the site's proximity to local bus stops and Bay Area Rapid Transit (BART). The project would include a rooftop garden[3] as the College does not have any green space due to its urban environment. Based on the structure's position, the project would be designed to increase daylight illumination in the interior spaces.

Berkeley City College maintains a Sustainability and Resiliency Strategy (2018), with which the proposed project would comply. This Strategy includes measures that would achieve the College's sustainability goals. The following measures would be implemented as part of the project:

- E-1: Purchase 100 percent renewable energy. The College will purchase electricity from the EBCE Program's Brilliant 100 option.
- E-2: Follow the Peralta Green Building Guidelines. These guidelines provide guidance on how to contribute to a Zero Net Energy District.
- E-3: Hire a Facilities Manager to implement the Strategy and ensure the proposed building is operating at its full potential.
- E-4: Develop on-site renewable energy and storage. As described above, the project includes the installation of solar panels on the building roof.
- E-5: Pursue Leadership in Energy and Environmental Design (LEED) operations and maintenance certification for new buildings. The new building would aim to achieve at least LEED Gold certification.
- TR-2: Parking cash-out incentive for employees. Paid for from the parking fund, the District could offer a cash stipend for employees who do not purchase a parking permit or daily parking pass.
- TR-3: Carpool matching and guaranteed ride home for employees. The District can help facilitate matching employees for carpooling, and Alameda County Transportation Commission (ACTC) guarantees a free ride home from work for employees who are part of carpool programs.
- TR-4: Vanpooling program. The campus can implement a formal vanpool program for faculty and staff and provide designated vanpool spaces in parking lots.
- TR-8: Provide non-taxable benefits to pedestrians and bicyclists (faculty and staff). Compensate faculty and staff for using active transportation modes on commutes.
- TR-10: Transit fare subsidy for employees. Offer a monthly commuter check to faculty and staff, allowing access to BART, Alameda County Transit (AC Transit), and other major transit providers.
- TR-11: Secure bike parking. Place bicycle corrals on campus and in front of buildings for convenient short-term bicycle access, as well as secure long-term bicycle parking and access to on-campus showers and changing rooms. As described in Section 2.4.4, bicycle parking is provided on the building's first floor, adjacent to the main entrance.

[3] The roof would include landscaped plantings along the eastern side of the rooftop patio, and partially along the northern and southern sides of the rooftop patio.

- WR-2: Efficient indoor water fixtures. Install indoor water fixtures consistent with California Energy Commission (CEC) adopted maximum flow rates for toilets, urinals, kitchen faucets, and public lavatory faucets.
- SW-2: Convert from single stream to dedicated recycling. Provide dedicated recycling and compost receptacles on campus to increase waste diversion rates.
- SW-5: Install water bottle filling stations.
- SW-9: Construction, demolition, and renovation waste recycling. Ensure this waste is properly sorted and disposed of through specific language in construction RFPs and by utilizing local programs.
- SW-11: Zero waste stations. Provide facilities that allow for the proper sorting of waste, including bins for trash, recycling, and compost, with visually compelling signage in high-traffic areas.

5. Required Discretionary Approvals

The proposed project is subject to approval by the Peralta Community College District and the Division of the State Architect (DSA). Local approvals from the City of Berkeley would be required for any work on City property or within public rights-of-way, including utility work, sidewalk and hardscape modifications, trees or landscaping modifications and temporary closures of street parking areas or road laneways.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

Determination

Based on 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 to 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 "less than significant with mitigation incorporated" 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 potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Atheria Smith Atheria Smith (Jun 24, 2021 19:46 PDT)	06/24/2021
Signature	Date
Atheria Smith	Acting Vice Chancellor of General Services
Printed Name	Title

Environmental Checklist

1 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 a 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 that would adversely affect daytime or nighttime views in the area?	☐	■	☐	☐

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

A scenic vista is a view from a public place (roadway, designated scenic viewing spot, etc.) that is expansive and visually notable. It can be obtained from an elevated position (such as from the top of a hillside) or it can be seen from a roadway with a longer-range view of the landscape. In an urban area, a scenic vista can include a long view down a boulevard with scenic resources, such as mature landscaping, important architecture, or other built environment features that contribute overall to a strong sense of place. An adverse effect would occur if a proposed project would block or otherwise damage the scenic vista upon implementation.

The project site is in an urbanized area of downtown Berkeley, where multi-story buildings exist on all sides. A six-story structure is adjacent to the west of the project site, and across Milvia Street to the east is an eight-story structure with rooftop equipment that adds additional height. Similarly, southeast of the site, a four-story office structure is on the corner of Milvia Street and Center Street, with another multi-story structure just south of that. On the southwest corner of Milvia Street, the Martin Luther King Jr. Civic Center is a five-story structure with the Martin Luther King Jr. Civic

Center Park just west of that. Traveling east on Center Street, distant views of the Berkeley Hills are available through a corridor formed by the urban development. The view is limited to the space directly ahead of the roadway and is neither vast nor expansive. Nonetheless, the view is important to the context of Downtown Berkley, an area defined in part by the Berkeley Hills to the east. From the Martin Luther King, Jr. Civic Center Park, public views under current conditions include existing buildings and do not feature expansive scenic vistas beyond that development

The project would be constructed on the northwest corner of Milvia Street and Center Street, replacing an existing structure. It would not extend into either roadway; neither would construction of a new, taller structure in place of the existing one on the project site obstruct views from public areas within the park, or from surrounding streets or sidewalks, of the Berkeley Hills. The project would result in no impact to scenic vistas.

NO IMPACT

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

None of the roadways near the project site are designated as State scenic highways, nor are they eligible for such designation. The nearest designated highway is I-580, the closest section of which is over 1.5 miles west of the project site (California Department of Transportation [Caltrans] 2019). From this distance intervening development would prevent the proposed project from affecting views from the highway toward the project site of historic buildings, landscape elements, or other scenic resources. There would be no impact.

NO IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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?

The project would be located in an urbanized downtown area characterized by a rich and complex range of architectural styles, mature street and park trees and other landscaped features, and broad, two-lane boulevards with street parking. According to the City of Berkeley Downtown Design Guidelines, the adjacent building to the west of the project site is designated Significant by the Landmarks Preservation Commission and the 1994 City Design Guidelines (City of Berkeley 2012). The Civic Center and the adjacent park, south of the project site, are Designated Landmarks/Structures of Merit. The City's intent is to preserve the design context in which these buildings exist to retain a consistent character by "respecting scale, use, and architectural character, while simultaneously encouraging architecture that addresses contemporary challenges with new forms of expression."

The structure and the park form a focal point for the area near the project site and take up the entire block south of the project site, with Martin Luther King Jr. Way on the west, Milvia Street on the east, Center Street on the north, and Allston Way on the south. The Civic Center forms its own historic district, as described in the Downtown Berkeley Design Guidelines (City of Berkeley 2012). Mature street trees exist along Milvia Street and Center Street, with the park being the more densely vegetated area. From various public perspectives, looking in all directions from these

roadways, long range views of the landscape that typically define scenic vistas are limited by existing development and the mature urban forestation.

The architecture in this area is characterized by a distinctive mix of neo-Classical architectural style and its variations – Mission, Mediterranean, Roman, and Greek revival styles. This Classical vocabulary articulates the appearance of many significant structures built in late nineteenth and early twentieth centuries. Other stylistic traditions from the early twentieth century include Art Deco structures like the Kress Building and the Public Library. All these traditional styles feature vertical windows, regularly spaced or grouped based on the style, and streetwalls where building frontages run close to street-facing edges of the property. These are often distinguished storefronts topped with cornices, upper floor cornices that run from capitals to the next level cornice and create structural supports as well as design elements. Uppermost stories often include a capital parapet that may protect a roof or balcony but that also provides variation in the surface and edges that shape the silhouette of the structure. Decorative elements such as stone or terra cotta ornamentation, tile and terrazzo paving, structural glass, and prism glass transom windows further deepen the visual complexity of the downtown streetscape and skyline.

These nineteenth century buildings combine with later twentieth century Moderne and post-modern styles that feature simple, rectilinear forms with glass and stucco facades and limited decorative elements, but may include articulated roof profiles, and unusual façade designs forms such as enframed entrances and the V-shaped awning over the entrance to the main College campus on Center Street. This vibrant mix forms an urban visual environment distinctive to Berkeley and its downtown area, with well-defined edges that the City's Design Guidelines note are important aspects of its historic character that are to be reinforced and enhanced by renovation and new construction (City of Berkeley 2012).

Looking north on Milvia Street, toward the project site, the view is of a regularly developed, well-maintained urban landscape with dense, high-rise development and mature landscaping, some of which overarches the roadway. From Center Street looking east, a similar urban built environment frames the Berkeley Hills in the distance, just visible over the tops of the trees and between the structures, forming part of the distinctive landscape that characterizes the sense of place in Berkeley and provides a visual counterpoint to the built environment.

The proposed project would remove a three-story, contemporary style office structure and replace it with a six-story educational structure with a rooftop patio and solar installation. The Berkeley College Master Plan does not contain campus facility design guidelines, but it does indicate an intent to distinguish the visual recognizability of the College campus in its urban context, making the frontage more distinctive and improving the streetscaping that extends the College's presence to the street (Berkeley City College 2009).

Industry standards for assessment of visual quality consider the degree of unity, intactness, and vividness in the area in which the project site occurs. As described above, downtown Berkeley consists of a mix of contemporary and historic architecture that, while different, retains a degree of design unity that contributes to its high visual quality. While some structures feature less remarkable designs than others (e.g., the existing structure on the project site versus the Martin Luther King, Jr. Civic Center to the southwest), the overall effect is of an urban landform that coheres in terms of design, massing, orientation, and degree of maintenance. Furthermore, the park southwest of the project site and the other planted street landscaping contribute to the high visual quality.

As a State entity, the District is not required to comply with the City's Downtown Design Guidelines, and the project's final design may result in a potentially significant impact to visual resources, including historic context (see Section 5, *Cultural Resources*, for an in-depth discussion of this topic).Therefore, Mitigation Measure AES-1 would be required. With implementation of Mitigation Measure AES-1, impacts would be reduced to a less than significant level.

Mitigation Measure

AES-1 Final Project Design

The District shall review proposed designs and plans to ensure the form, massing, and style reinforce and enhance the built environment character of downtown Berkeley, with particular attention to the historically significant and designated buildings adjacent to and near the project site. The following best practices shall be incorporated into the design process, to the extent feasible.

- Design the building to reflect and reinforce the scale, massing, proportions, rhythm, and attention to detail established by the facades of Landmark and Significant buildings as described in the City of Berkeley Downtown Design Guidelines, but refrain from "false historicism" that mimics historic buildings.
- Provide a termination to the top of the building that complements and enhances the character of the structure and integrates into the visual landscape of the downtown.
- Incorporate elements that break up façade planes and create visual play of light and shadow, avoiding long, uninterrupted, overly consistent horizontal surfaces by using recessed areas, architectural projections, and other elements consistent with the overall building design.
- Make divisions of ground and upper floors consistent with neighboring structures in a way that maintains the visual harmony; align cornice and other horizontal, ground-floor elements like awnings and signage with similar features on neighboring structures.
- Accompany windows with light shelves, overhangs, or deep recesses to shade the window during summer while providing solar access into the structure during winter.
- Conceal electrical boxes and conduits from public view.
- Consider that the design of rooftops may be viewed from above by making rooftop equipment and enclosures attractive.
- Use high-quality, durable materials that enhance the structure and convey a sense of permanence (i.e., minimum service life of 50 years).
- Desirable façade materials for the project include brick, concrete, stucco, marble, granite, tile, and terra cotta.
- Use wood, aluminum, steel, copper, or bronze for window frames and sashes.
- Structure details should contribute to the architectural character and artistic expression of the downtown built environment and should be integral to the structure's design – not just decorative.
- Use colors that are harmonious with the adjacent development, prioritizing earth-tone colors that will not detract from Landmark and Significant buildings.

- Keep color schemes simple, using the minimum number of colors to achieve the desired appearance.
- Avoid strong or dark colors on large wall surfaces, choosing instead colors that are muted and harmonious with the major colors found nearby and reserve bold colors for accents and special features.
- Signs should reflect the structure's character and its use. A sign can add to the interest and beauty of the façade but should respect the immediate context of the structure location.
- Construct signs using high-quality materials such as metal, stone, and wood.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Light and Glare

For purposes of this analysis, light refers to light emissions (brightness) generated by a source of light. Typical stationary sources of light include exterior parking lot and building security lighting; moving sources of light include the headlights of vehicles driving on roadways near the project site. Streetlights and other security lighting also serve as sources of light in the evening hours.

Glare is defined as focused, intense light emanating indirectly when light reflects off a surface. Daytime glare is caused in large part by sunlight shining on highly reflective surfaces. Reflective surfaces are associated with buildings that have expanses of polished or glass surfaces, light-colored pavement, and the windshields of parked cars.

The project site is in an urbanized area of Berkeley, where existing conditions include light from streetlights, exterior building security lighting, and interior light that emanates from windows at night. Vehicles driving on Milvia Street and Center Street would also produce substantial light at night from headlights adjacent to the project site.

The level of glare in the area is limited as structures have neutral colored exterior finishes and most expanses of glass walls are buffered by mature street trees, as evident along Milvia Street east of the project site, and adjacent to the project site itself. Parked cars and those traveling along Milvia and Center streets are similarly shaded by street trees or high-rise structures and glare from their windshields would be limited by these contextual factors.

A significant impact could occur if the project introduces new sources of light and glare on the project site that would be incompatible with the areas around the project site or that pose a safety hazard to motorists using adjacent streets. Although project designs have not been developed, it is assumed that the project structure would be illuminated with indoor and outdoor lighting. Security lighting would be provided along the perimeter of the structure, in stairwells, and on the rooftop patio.

As the proposed project would increase density on the project site by constructing a taller structure with more floors, the project would incrementally increase the amount of nighttime light over existing conditions. However, because the project would be situated in an urbanized context with moderately high degree of lighting, the additional light would not be significant. As the District is not required to comply with City lighting regulations and the College Master Plan does not include

design guidelines, Mitigation Measure AES-2 would be required to reduce potential light impacts off site.

New vehicle parking areas would not be provided as part of the project, and thus increased glare from car windshields would not occur. Building finishes, fenestration, and other architectural features are currently unknown. Therefore, the project could include glass windows that could result in some transitory glare conditions during the day. Furthermore, architectural design could include finishes, such as polished aluminum, large banks of unshielded windows, or other features that could reflect the sun in a way that is potentially significant. Therefore, Mitigation Measure AES-3 would be required to reduce potential glare impacts.

Shade and Shadow

The issue of shade and shadow applies when direct sunlight is blocked by on-site buildings in a way that affects adjacent properties. Users and occupants of residential, recreational, open space, outdoor dining, and pedestrian areas may expect direct sunlight that warms the areas they occupy or traverse. These land uses would be considered "shadow-sensitive." The length of a shadow depends upon the height and size of the building from which it is cast, combined with the angle of the sun, which necessarily varies based upon the time of year. The longest shadows are cast during the winter months and the shortest occur during the summer.

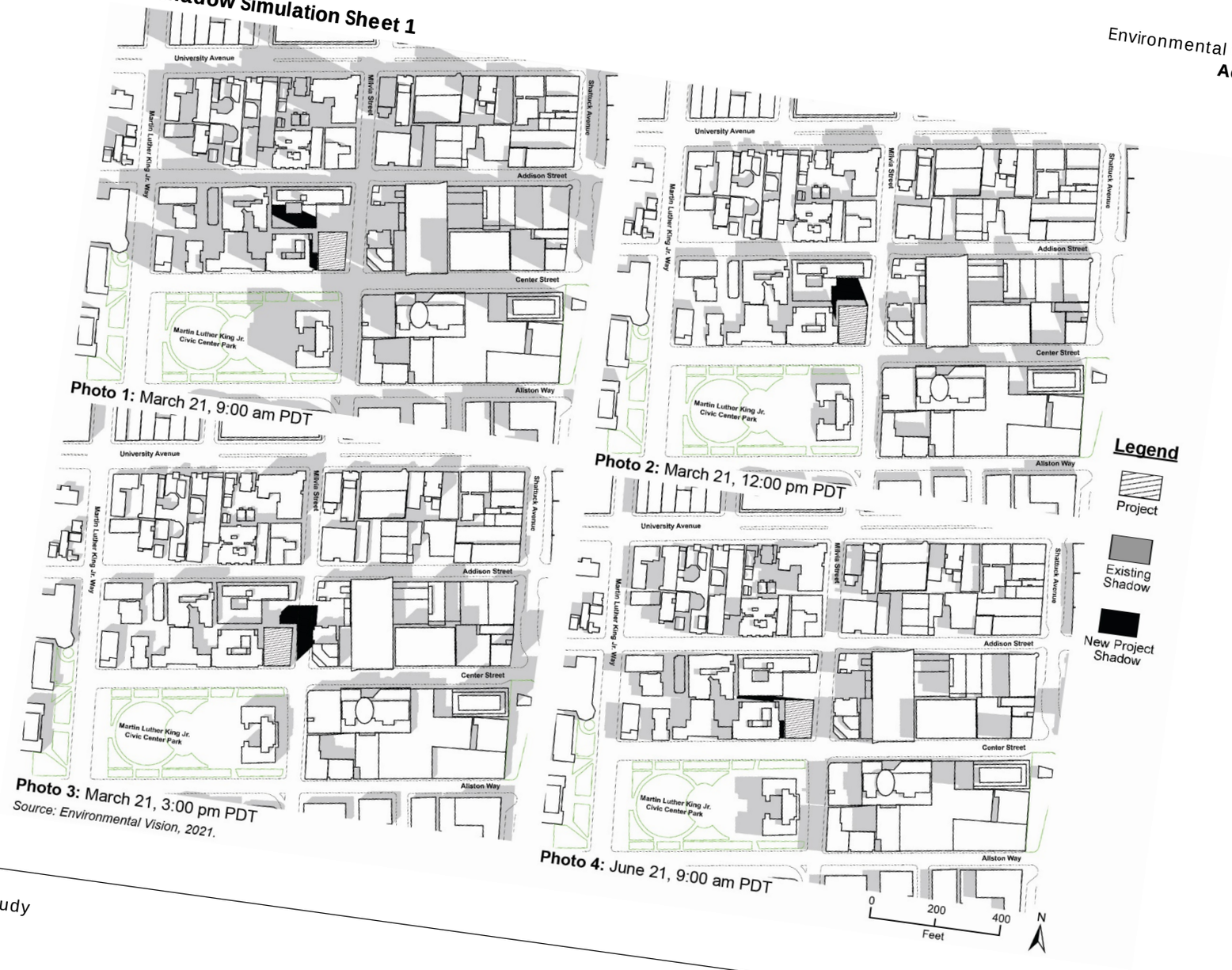
During the spring equinox (approximately March 21) and the autumn equinox (approximately September 22), day and night are nearly the same length. The spring equinox marks the first day of the spring season and the autumnal equinox marks the first day of the fall season.

"Solstice" is the term used to refer to either of the two times of year when the sun is at its highest (summer) or lowest (winter) point in the sky at noon, marked by the longest and the shortest days of the year. Estimating shadow lengths for the winter and summer solstices presents the extreme shadow patterns that would occur throughout the year. Shadows cast on the summer solstice (approximately June 20) would be the shortest, becoming progressively longer until winter solstice (approximately December 21) when shadows are longest.

Shadow simulations indicate the proposed project would cast strong shadows throughout the day of the spring equinox. In the morning, shadows would fall on the adjacent uses to the west and northwest; at mid-day, shadows would fall on Milvia Street sidewalks, office uses, the parking lot adjacent to the north, and adjacent sidewalks; and in the afternoon shadows would fall on Milvia Street and some adjacent buildings and off-street parking areas located east of the project site. Much of this area is currently shaded by adjacent structures, including those to the east of the project site, and by the existing structure on the project site. All simulations are provided in Figure 11 through Figure 13.

During the summer solstice, simulations show that the project would cast a nominal shadow at 9 a.m. on the adjacent alley to the west and northwest, both of which are shaded under current conditions. At noon, the shadows would be quite short, as under existing conditions, shading only the back of the proposed structure. In the afternoon, Milvia Street and the sidewalk beside the proposed project would be shaded, more so than under current conditions. On the winter solstice, the proposed project would also cast strong shadows in a northeasterly direction in the morning; nominal, slanting shadows to the north at mid-day; and to the east onto the parking area associated with the building on the northeast corner of Milvia Street and Center Street in the evening. The shade produced by the proposed project would be similar to current conditions.

Figure 11 Shadow Simulation Sheet 1

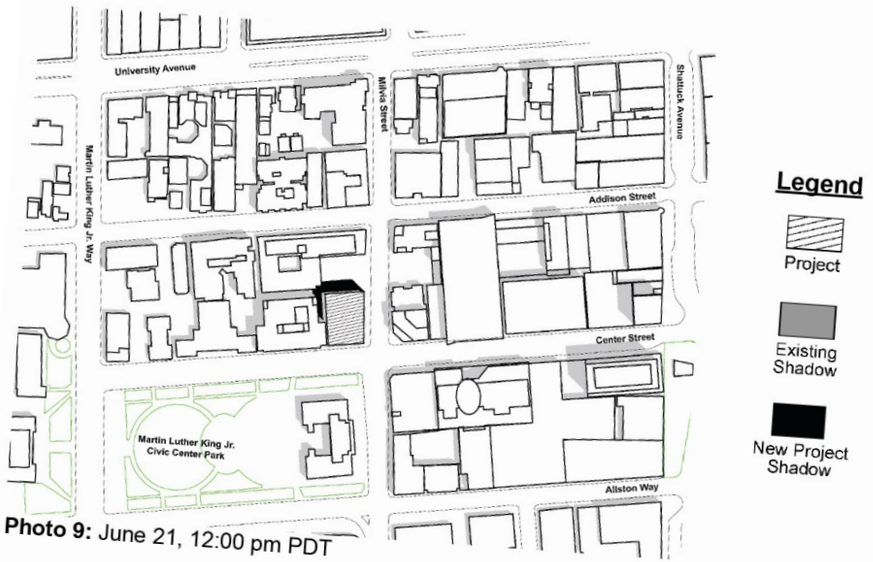


Source: Environmental Vision, 2021.

Figure 12 Shadow Simulation Sheet 2

Source: Environmental Vision, 2021.

Figure 13 Shadow Simulation Sheet 3



Source: Environmental Vision, 2021.

Under all these circumstances, no residences, parks or other shadow-sensitive use would be shaded by the proposed project for more than four hours between 9 a.m. and 5 p.m. Consequently, equinox and solstice shadow impacts from the proposed project would be less than significant and no mitigation would be required.

Mitigation Measures

AES-2 Lighting Requirements

District staff shall review and approve designs and plans to ensure the proposed lighting does not spillover onto or otherwise negatively affect adjacent land uses. The following lighting standards shall be applied to the extent feasible:

- Provide lighting at structure entrances and for security at ground level.
- Use accent lighting to highlight interesting architectural features but ensure accent lighting does not create a source of glare or spill onto adjacent areas in an incompatible manner.
- Use structure lighting to highlight signs, entrances, walkways, and outstanding architectural features, but do not use exterior lighting that blinks or changes.
- Shield lighting to avoid direct glare onto adjacent uses, the sidewalk, and the street.
- Sign lighting shall not consist of spotlighting, halo lighting, or exposed neon but should be an inconspicuous and integrated design feature. Sign lighting shall not cause glare for pedestrians or motorists and should not blink.

AES-3 Glare Requirements

District staff shall review and approve designs and plans to ensure the exterior of the proposed structure shall be constructed of non-reflective materials such as high-performance, tinted, non-reflective glass; metal-panel, pre-cast concrete; or cast-in-place or fabricated wall surfaces that are finished in such a way that glare is not created. Glass on ground floors shall be clear and non-reflective. Upper floor windows may have lightly tinted but non-reflective glass. Stained, translucent, or decorative glass may be used for transom windows and where equipment and ventilation ducts might be visible.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	■
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

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

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

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

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The site is not identified as a farmland type under the Farmland Mapping and Monitoring Program, is not enrolled in Williamson Act contracts, and does not support forest land or agricultural resources (California Department of Conservation 2016). According to California Department of Conservation maps, the project site and surrounding neighborhood is categorized as "Urban and Built-Up Land." The area is not located on or adjacent to agricultural land or forest land, and thus the proposed project would not involve or result in the conversion of farmland to non-agricultural uses. For these reasons, the project would have no impact with respect to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing agricultural zoning or Williamson Act contract; result in the loss of forest land or conversion of forest land to non-forest use; or other conversion of farmland to non-agricultural use.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	■	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐

Air Quality Standards and Attainment

The project site is located within the San Francisco Bay Area Air Basin (the Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that National Ambient Air Quality Standards and California Ambient Air Quality Standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the Basin is classified as being in "attainment" or "nonattainment." In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants, and the human health impacts associated with these criteria pollutants, presented in Table 3, are already occurring in that area as part of the environmental baseline condition. Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The Basin is designated a nonattainment area for state and federal ozone standards, state and federal particulate matter smaller than 2.5 microns in diameter ($PM_{2.5}$) standards, and state particulate matter smaller than 10 microns in diameter (PM_{10}) standards; and is in attainment or unclassified for the remaining criteria pollutants (BAAQMD 2017a). This nonattainment status is a result of several factors, including climate and wind as well as high automobile emissions in the Basin.

Table 3 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).[1]
Suspended particulate matter ($PM_{2.5}$)	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.

Source: U.S. Environmental Protection Agency (USEPA) 2018

Air Quality Management

Because the Basin currently exceeds state and federal ozone standards, state and federal $PM_{2.5}$ standards, and state PM_{10} standards, the BAAQMD is required to implement strategies to reduce pollutant levels to achieve attainment of these National Ambient Air Quality Standards and California Ambient Air Quality Standards. The Bay Area 2017 Clean Air Plan (the 2017 Plan) provides a plan to improve Bay Area air quality and protect public health as well as the climate. The legal impetus for the 2017 Plan is to update the most recent ozone plan, the 2010 Clean Air Plan, to comply with state air quality planning requirements as codified in the California Health & Safety Code. Although steady progress in reducing ozone levels in the Basin has been made, the region continues to be designated as non-attainment for both the one-hour and eight-hour state ozone standards. In addition, emissions of ozone precursors in the Bay Area contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires the 2017 Plan to include all feasible measures to reduce emissions of ozone precursors and reduce transport of ozone precursors to neighboring air basins. The 2017 Plan determines that, with implementation of the proposed control strategy, the Basin can expect to reach attainment of state ozone standards by approximately 2025 (BAAQMD 2017b).

In 2006, the U.S. Environmental Protection Agency (USEPA) reduced the national 24-hour $PM_{2.5}$ standard regarding short-term exposure to fine particulate matter from 65 micrograms per cubic meter ($\mu g/m^3$) to 35 $\mu g/m^3$. Based on air quality monitoring data for the 2006-2008 cycle showing that the region was slightly above the standard, the USEPA designated the Basin as non-attainment for the 24-hour national standard in December 2008. This triggered the requirement for the BAAQMD to prepare a State Implementation Plan (SIP) submittal to demonstrate how the region would attain the standard. However, data for both the 2008-2010 and the 2009-2011 cycles showed that $PM_{2.5}$ levels in the Basin currently meet the standard. On October 29, 2012, the USEPA issued a proposed rule-making to determine that the Basin now attains the 24-hour $PM_{2.5}$ national standard. Based on this, the Basin is required to prepare an abbreviated SIP submittal, which includes an emission inventory for primary (directly-emitted) $PM_{2.5}$, as well as precursor pollutants that contribute to formation of secondary PM in the atmosphere; and amendments to BAAQMD New

Source Review to address $PM_{2.5}$ (adopted December 2012). However, key SIP requirements to demonstrate how a region will achieve the standard (i.e., the requirement to develop a plan to attain the standard) will be suspended as long as monitoring data continues to show that the Basin attains the standard.

In addition to preparing the "abbreviated" SIP submittal, the BAAQMD has prepared a report entitled "Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area" (BAAQMD 2012). The report helps guide the BAAQMD's on-going efforts to analyze and reduce PM in the Bay Area in order to better protect public health.[4] The Basin will continue to be designated as nonattainment for the federal 24-hour $PM_{2.5}$ standard until such time as the BAAQMD elects to submit a "redesignation request" and a "maintenance plan" to the USEPA, and the USEPA approves the proposed redesignation.

Air Emission Thresholds

The BAAQMD has adopted guidelines for quantifying and determining the significance of air quality emissions in its CEQA Air Quality Guidelines (BAAQMD 2017c). The BAAQMD developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts. If all of the screening criteria are met by a project, then the lead agency or applicant does not need to perform a detailed air quality assessment of their project's air pollutant emissions. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. Projects that are mixed-use, infill, and/or proximate to transit service and local services, would generally result in emissions less than the greenfield type project that these screening criteria are based on (BAAQMD 2017c).

Screening Criteria

For university/college developments such as the proposed project, BAAQMD's construction-related screening size is 3,012 students and BAAQMD's operational screening size is 1,760 students. However, if a project includes demolition, the screening criteria for construction may not be used to preclude evaluation of the project's construction-related criteria pollutant emissions. Therefore, the screening criteria for construction cannot be used. Similarly, the proposed project would accommodate 1,760 students by 2027; therefore, operational air emissions screening criteria cannot be used, and air emissions were quantified using the California Emissions Estimator Model (CalEEMod; BAAQMD 2017c; see Appendix AQ). As a result, the BAAQMD significance thresholds for criteria air pollutants were analyzed.

Emission Thresholds

Table 4 presents the significance thresholds for construction-related criteria air pollutant and precursor emissions adopted by BAAQMD. These represent the levels at which a project's individual emissions of criteria air pollutants or precursors during construction would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. If the project's construction-related criteria pollutant emissions exceed the thresholds shown in Table 4, the proposed project would result in a significant construction-related air quality impact.

[4] PM is made up of particles that are emitted directly, such as soot and fugitive dust, as well as secondary particles that are formed in the atmosphere from chemical reactions involving precursor pollutants such as oxides of nitrogen, sulfur oxides, volatile organic compounds, and ammonia.

Table 4 Criteria Air Pollutant Significance Thresholds for Construction

Pollutant	Average Daily Emissions (lbs/day)
ROG	54
NO_X	54
PM_{10}	82 (exhaust)
$PM_{2.5}$	54 (exhaust)

Source: BAAQMD 2017c

Table 5 presents the significance thresholds for operation-related criteria air pollutant and precursor emissions adopted by BAAQMD. These represent the levels at which a project's individual emissions of criteria air pollutants or precursors during operation would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. If the project's operation-related criteria pollutant emissions exceed the thresholds shown in Table 5, the proposed project would result in a significant operation-related air quality impact.

Table 5 Criteria Air Pollutant Significance Thresholds for Operation

Pollutant	Average Daily Emissions (lbs/day)	Average Annual Emissions (tons/year)
ROG	54	10
NO_X	54	10
PM_{10}	82	15
$PM_{2.5}$	54	10

Source: BAAQMD 2017c

Methodology

Air pollutant emissions generated by project construction and operation were estimated using CalEEMod, version 2016.3.2. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., Junior College for community college uses), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described in Section 4, *Project Characteristics*.

Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in operation by emission factors. Project construction was analyzed based on the proponent-provided construction schedule and construction equipment list. It is assumed that all construction equipment used would be diesel-powered. Construction includes 1,500 cubic yards of soil export and demolition of the existing 25,000-square foot building. This analysis assumes that the project would comply with all applicable regulatory standards. In particular, the project would comply with BAAQMD Regulation 8 Rule 3, which limits the emissions of volatile organic compounds from architectural coatings.

Operational emissions modeled include mobile source emissions (i.e., vehicle emissions), energy emissions, and area source emissions. Mobile source emissions are generated by vehicle trips to and from the project site. Trip generation rates were sourced from the Transportation Impact Study prepared for the project by CHS Consulting (Appendix TRA). The project would result in no air quality emissions attributed to energy use as the proposed structure would be all electric with no

natural gas infrastructure. Area source emissions are generated by landscape maintenance equipment, consumer products and architectural coatings.

CalEEMod does not incorporate water use reductions achieved by 2016 California Green Building Standards Code (CalGreen; Part 11 of Title 24). New development would be subject to CalGreen, which requires a 20 percent increase in indoor water use efficiency. Thus, to account for compliance with CalGreen, a 20 percent reduction in indoor water use was included in the water consumption calculations for the project. Per the College's Sustainability and Resiliency Strategy, low-flow appliances, including toilets, bathroom faucets, and kitchen faucets would be installed in the proposed structure. Additionally, the proposed project does not include any landscaping components, therefore no water would be required for outdoor irrigation.

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

Vehicle use, energy consumption, and associated air pollutant emissions are directly related to population and housing growth. A project would generally conflict with or potentially obstruct implementation of an air quality management plan if it would contribute to population growth in excess of that forecast in the plan. Such growth would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects need to be evaluated to determine whether they would generate population, housing, or employment growth and, if so, whether that growth would exceed the growth rates included in the applicable air quality plan. The most recent and applicable adopted air quality plan is the 2017 Clean Air Plan. Therefore, the proposed project would result in a significant impact if it would conflict with or obstruct implementation of the 2017 Plan.

BAAQMD uses the Association of Bay Area Governments (ABAG) growth forecast. The latest ABAG projections include a jobs forecast specifically for health, educational, and recreational service jobs. The ABAG estimates that the number of health, educational, and recreational service jobs in the City of Berkeley will be 52,160 in 2040 an increase of 4,465 jobs above 47,695 jobs in 2020 (ABAG 2019). Berkeley City College is anticipated to accommodate 200 new faculty and staff jobs between 2020 and 2040, based on an annual growth rate of 2.4 percent. The addition of 200 jobs associated with the proposed project would be within the estimated increase in the City by 2040. The project's employment growth would be within ABAG projections and therefore also within the 2017 Plan projections.

Furthermore, as discussed in responses to criterion (b) below, the project would not exceed BAAQMD significance thresholds related to air quality emissions. Therefore, the project would not conflict with or obstruct the implementation of an applicable air quality plan. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project would result in temporary construction emissions and long-term operational emissions.

Construction

Construction activities such as the operation of construction vehicles and equipment over unpaved areas (on site during site preparation and grading), grading, trenching, and disturbance of stockpiled soils have the potential to generate fugitive dust (PM_{10}) through the exposure of soil to wind erosion and dust entrainment. In addition, exhaust emissions associated with heavy-duty construction equipment would potentially degrade regional air quality. Construction emissions were estimated using CalEEMod and are shown in Table 6.

Table 6 Estimated Average Daily Construction Emissions (lbs/day)

Construction Year	ROG	NO_x	CO	SO_2	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
2022	2	15	12	<1	1	1
2023	1	13	12	<1	1	1
2024	4	8	10	<1	<1	<1
2025	4	8	10	<1	<1	<1
Maximum Emissions[1]	**4**	**15**	**12**	**<1**	**1**	**1**
BAAQMD Thresholds	54	54	n/a	n/a	82	54
Threshold Exceeded?	**No**	**No**	**n/a**	**n/a**	**No**	**No**

lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter smaller than 10 microns in diameter, $PM_{2.5}$ = particulate matter smaller than 2.5 microns in diameter

Notes: All emissions modeling was completed made using CalEEMod. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (including BAAQMD Regulation 8 Rule 3) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Source: Appendix AQ

As shown in Table 6, the proposed project would not exceed the BAAQMD short-term construction thresholds shown in Table 4. However, to control dust and exhaust during construction, the BAAQMD has also identified feasible fugitive dust control measures for construction activities in the *CEQA Air Quality Guidelines* (BAAQMD 2017c). These measures have been included as Mitigation Measure AQ-1 to ensure project compliance. With the implementation of these Basic Construction Mitigation Measures, construction air quality impacts would be less than significant.

Operation

Long-term emissions associated with operation, as shown in Table 7 and Table 8, would include emissions from vehicle trips (mobile sources); stationary sources (on-site emergency generator); and landscape maintenance equipment (for the rooftop garden), consumer products, and architectural coating associated with on-site development (area sources). Current emissions from the existing structure were not subtracted from project emissions to provide a conservative analysis.

Table 7 Estimated Average Daily Operational Emissions (lbs/day)

Emissions Source	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	1	<1	<1	0	<1	<1
Energy	0	0	0	0	0	0
Mobile	1	4	11	<1	4	1
Stationary	0	0	0	0	0	0
Total	**2**	**4**	**11**	**<1**	**4**	**1**
BAAQMD Thresholds	54	54	n/a	n/a	82	54
Threshold Exceeded?	**No**	**No**	**n/a**	**n/a**	**No**	**No**

lbs/day = pounds per day; ROG = reactive organic gases, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter smaller than 10 microns in diameter, $PM_{2.5}$ = particulate matter smaller than 2.5 microns in diameter

Notes: All emissions modeling was completed made using CalEEMod. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (including BAAQMD Regulation 8 Rule 3) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Source: Appendix AQ

Table 8 Estimated Average Annual Operational Emissions (tons/year)

Emissions Source	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Area Sources	<1	0	<1	0	0	0
Energy Sources	0	0	0	0	0	0
Mobile Sources	<1	1	2	<1	1	<1
Stationary	<1	<1	<1	<1	<1	<1
Total	**<1**	**1**	**2**	**<1**	**1**	**<1**
BAAQMD Thresholds	10	10	n/a	n/a	15	10
Threshold Exceeded?	**No**	**No**	**n/a**	**n/a**	**No**	**No**

ROG = reactive organic gases, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter smaller than 10 microns in diameter, $PM_{2.5}$ = particulate matter smaller than 2.5 microns in diameter

Notes: All emissions modeling was completed made using CalEEMod. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (BAAQMD Regulation 8 Rule 3) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Source: Appendix AQ

Table 7 and Table 8 show that emissions would not exceed BAAQMD daily or annual thresholds for any criteria pollutant. Consequently, operational impacts would be less than significant.

Mitigation Measure

AQ-1 BAAQMD Basic Construction Mitigation

The District shall ensure that the construction contractor(s) implement the following measures during project construction to reduce dust fall-out emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, and graded areas) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered or maintain at least 2 feet of freeboard.
- 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.
- Enclose, cover, water daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.)
- 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.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- 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 CCR Title 13, Section 2485). Clear signage shall be provided for construction workers at all access points.
- 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.
- Post a publicly visible sign with the telephone number and person to contact at the District or construction contractor 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.

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

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Therefore, most of the sensitive receptor locations are schools, hospitals, and residences. Sensitive receptors in the project vicinity include multi-family residences located as close as 100 feet to the northeast. Localized air quality impacts to sensitive receptors typically result from carbon monoxide (CO) hotspots and toxic air contaminants (TAC), which are discussed in the following subsections.

Carbon Monoxide Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 ppm or the federal and state eight-hour standard of 9.0 ppm.

The BAAQMD maintains the following screening thresholds for CO hotspots:

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

As described in Section 17, *Transportation*, the project would accommodate a net change in traffic of 1,816 new trips between 2020 and 2040 (Appendix TRA). Traffic counts in the project vicinity range from 5,000 daily trips to 32,000 daily trips (City of Berkeley 2000). The existing low volume of traffic and the small addition of project traffic would not result in greater than 44,000 vph or 24,000 vph at local intersections.

Based on improving vehicle emissions standards for new cars in accordance with state and federal regulations, the project's low level of new vehicle trips, and the project's low level of operational CO emissions, the project would not create new CO hotspots or contribute substantially to existing CO hotspots. Therefore, the proposed project would not expose sensitive receptors to substantial CO concentrations, and localized air quality impacts related to CO hot spots would be less than significant.

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the project's potential to result in impacts related to TAC emissions during construction and operation.

Construction

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by the California Air Resources Board (CARB) in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2020a) and is therefore the focus of this analysis.

Generation of DPM from construction projects typically occurs in a single area for a short period. Project construction would occur over approximately 30 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for an individual receptor. The risks estimated for a receptor is higher if a fixed exposure occurs over a longer period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 30 months)

is approximately 8.3 percent of the total exposure period used for 30-year health risk calculations. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (BAAQMD 2017c).

The maximum PM_{10} and $PM_{2.5}$ emissions would occur during demolition, site preparation and grading activities. These activities would last for approximately six months. PM emissions would decrease for the remaining construction period because construction activities such as building construction and architectural coating would require less intensive construction equipment. While the maximum DPM emissions associated with demolition, site preparation, and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent less than 2 percent of the total 30-year exposure period for health risk calculation. Given the aforementioned discussion, DPM generated by project construction would not create conditions where the probability is greater than one in one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial TAC concentrations, and impacts would be less than significant.

Operation

CARB has identified DPM as the primary airborne carcinogen in the state (CARB 2021). In addition, TACs are a defined set of air pollutants that may pose a present or potential hazard to human health. Common sources of TACs and $PM_{2.5}$ include gasoline stations, dry cleaners, diesel backup generators, truck distribution centers, freeways, and other major roadways (BAAQMD 2017b). The project would not involve construction of gas stations, dry cleaners, highways, or roadways, but would install a diesel backup generator, which is a permitted source of TAC or $PM_{2.5}$. The proposed on-site emergency diesel generator would be approximately 230 kilowatts and powered by an approximately 359-horsepower engine. The emergency generator was modeled in CalEEMod assuming it would operate for 50 hours per year for testing and maintenance purposes in compliance with the BAAQMD's Regulation 9 Rule 8 for stationary internal combustion engines (BAAQMD 2019).[5] The CalEEMod annual (tons per year) PM_{10} exhaust and total $PM_{2.5}$ emissions for the stationary source were then converted into average daily emissions (pounds per day) and used in the BAAQMD's *Risk and Hazards Emissions Screening Calculator*. This screening tool provides conservative estimates for total cancer risk, $PM_{2.5}$ concentration, and hazard index from stationary sources. In the screening tool, the CalEEMod PM_{10} exhaust emission was used to represent diesel exhaust particulates and the total $PM_{2.5}$ emissions represented fine particulate matter. No distance adjustment was used in the screening tool. Based on the screening tool, the unadjusted total cancer risk would be 1.5 per million, the total $PM_{2.5}$ concentration would be less than 0.01 $\mu g/m^3$, and the hazard index value would be less than 0.01. These risks and hazards are below the BAAQMD TAC single-source thresholds of 10 per million for cancer risk, 0.03 $\mu g/m^3$ for $PM_{2.5}$, and 1.0 for hazard index. Therefore, impacts from the proposed emergency generator would be less than significant.

LESS THAN SIGNIFICANT IMPACT

[5] The College anticipates testing the emergency generator for approximately 30 minutes each month; however, generator usage was modeled at 50 hours per year per the BAAQMD Regulation to provide a conservative air quality emissions analysis.

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

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust both during normal use and when idling. However, these odors would be temporary and would cease upon completion. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people. This impact would be less than significant.

Table 3-3 in BAAQMD's 2017 *CEQA Air Quality Guidelines* provides odor screening distances for land uses that have the potential to generate substantial odor complaints. These uses include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants (BAAQMD 2017c). None of these identified uses would occur within the project site. The proposed project would not generate objectionable odors affecting a substantial number of people during operation, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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4 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 Wildlife 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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	■
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	■	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

The project site is located in a developed commercial and municipal area in incorporated Berkeley. The site is entirely covered by the existing structure and paved areas. The project site and vicinity

experiences extensive human disturbance, including regular vehicle movement along adjacent roadways, and pedestrian traffic along adjacent sidewalks. There is no landscaping on the site itself; however, five street trees are located along Milvia Street and Center Street, which are adjacent to the existing structure, within the public right-of-way. These street trees appear to be London plane trees (*Platanus hybrida*).

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

The project site is in an urbanized area of Berkeley and is currently developed with a three-story structure and pavement. Based on the developed nature of the area and lack of native or riparian habitat located on within it, no federal-or state-listed endangered, threatened, rare, or otherwise sensitive flora or fauna are anticipated to be located within the project site.

Existing street trees adjacent to the site could contain bird nests and birds that are protected under the Migratory Bird Treaty Act. Protected birds include all common songbirds, waterfowl, shorebirds, hawks, owls, eagles, ravens, crows, native doves and pigeons, swifts, martins, swallows, and others, including their body parts (feathers, plumes etc.), nests, and eggs. The proposed project would not involve the removal of existing street trees. However, the project's demolition and construction may affect protected nesting birds in existing trees. Therefore, Mitigation Measure BIO-1 would be required to reduce potential impacts to nesting birds. Implementation of Mitigation Measure BIO-1 would reduce impacts to less than significant levels.

Studies have shown that "the bulk of bird deaths result from the cumulative effects of a lone, confused bird mistaking glass for a safe flight path. The lone bird strike occurs over and over with conservative estimates calculating that each building kills 10 birds per year on average in the United States (Klem 1990). Poorly designed buildings kill hundreds per year (Hager et al. 2008)." The amount, location and design of glass on buildings are the primary factors affecting safety for birds. The proposed project has a low potential to attract substantial bird strikes because the project site is not near suitable bird habitat such as foraging areas, large tracts of open space or stands of mature trees, or wetlands or water features; projects proximate to such areas are of greater concern. Nevertheless, the proposed structure has the potential to result in bird strikes depending on its ultimate design. Mitigation Measure BIO-2, which is modeled on standard City of Berkeley conditions of approval for bird-safe construction, would be required to reduce potential impacts related to bird strikes. Implementation of Mitigation Measure BIO-2 would reduce impacts to a less than significant level.

Mitigation Measures

BIO-1 Pre-Construction Nesting Bird Survey

The District shall ensure that the construction contractor(s) limits initial site disturbance activities, including demolition and concrete removal, during the general avian nesting season (February 1 to August 30), to the extent feasible. If nesting season cannot be avoided, the District shall retain a qualified biologist to conduct a preconstruction nesting bird survey to determine the presence/absence, location, and activity status of any active nests on or adjacent to the project site. The extent of the survey buffer area surrounding the site shall be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the

destruction of active nests and to protect the reproductive success of birds protected by the Migratory Bird Treaty Act and California Fish and Game Code, nesting bird surveys shall be performed not more than 14 days prior to scheduled demolition and concrete removal. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines and a minimum buffer of 250 feet for raptors) shall be established around such active nests and no construction shall be allowed inside the buffer areas until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). No ground-disturbing activities shall occur within this buffer until the qualified biologist has confirmed that breeding/nesting is completed and the young have fledged the nest.

BIO-2 Bird-Safe Design

Project design shall incorporate the following:

- Create visual markers and mute reflections in glass features. Glass treatment (e.g., modifications in transparency, reflectivity, patterns and colors) shall be on at least the first 40 feet, or to the anticipated height of most of the street trees at maturity, whichever is higher. Applying these solutions to the entire building is preferred.
- Reduce light pollution which disorients migrating birds by choosing exterior light fixtures that project light downward rather than toward the sky, and by locating interior plantings away from glass areas that are lit at night.
- For structures such as greenhouses, skyways, free-standing glass walls and some balconies, require that 100 percent of glass be treated.

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

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

The site does not contain riparian habitat and is not located within a known regional wildlife movement corridor or other sensitive biological area as indicated by the U.S. Fish and Wildlife Service (USFWS) Critical Habitat portal or California Department of Fish and Wildlife (CDFW) Biogeographic Information and Observation System (USFWS 2020a; CDFW 2020a). No impact would occur as a result of the project.

NO IMPACT

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

The National Wetlands Inventory was reviewed to determine if wetland and/or non-wetland waters had been previously documented and mapped on or in the project vicinity (USFWS 2020b). No such features occur on or adjacent to the project site. There is one potential jurisdictional water or wetland that is in the project vicinity. Strawberry Creek, a riverine wetland resource, is located approximately 0.3-mile east of the site. However, project construction and operation would not involve or require the direct removal, filling, hydrological interruption, or other means to the bed, bank, channel, or adjacent upland area of Strawberry Creek. No impact would occur.

NO IMPACT

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

Project construction is not expected to require the removal of the street trees located along Milvia Street or Center Street. However, there is a potential that one or more of these trees would need to be trimmed back or removed entirely to accommodate construction equipment ingress and egress from the site. Because these trees are located on City rights-of-way, removal would be subject to City of Berkeley street tree regulations.

If existing street trees adjacent to the project site need to be removed, the District's construction contractor(s) would be required to obtain a Tree Removal Permit from the City of Berkeley Parks Division. The five street trees adjacent to the project site are all London plane trees. General Plan Policy EM-29 requires the City to maintain and enhance street and park trees to improve the environment and provide habitat. On-going policy implementation through site-specific review by the Berkeley Department of Planning and Development and Urban Forestry Unit during the Tree Permit approval process would reduce potential impacts to locally significant trees. Because the construction contractor(s) would be required to obtain a tree removal permit, if needed, the proposed project would not conflict with or hinder implementation of the City's tree protection ordinance or other policies or ordinances for protecting biological resources. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is not located in an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (CDFW 2020b). Therefore, the project would not conflict with such a plan and no impact would occur.

NO IMPACT

5 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 §15064.5?	☐	■	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

This section incorporates the results of a Historical Resource Assessment conducted by Rincon Consultants, Inc. in March 2021 (included as Appendix HR), and a Cultural Resources Report conducted by Pacific Legacy, Inc. in February 2021 (included as Confidential Appendix CR). The conclusions of these studies are briefly summarized in this section; additional details are available in Appendix HR and Appendix CR.

Historical Resource Assessment

Rincon Consultants reviewed a variety of sources to identify known and potential historical resources in and adjacent to the project site and evaluated the structure at 2118 Milvia Street for its eligibility to be listed as a historical resource. These include the listings of the National Register of Historic Places (NRHP), California Historical Landmarks, California Points of Historic Interest, and the current California Office of Historic Preservation Built Environment Resource Directory (and former California Historical Resources Inventory). In addition, Rincon reviewed local of City of Berkeley listings and historical resources-related documentation, including past surveys encompassing the current project site, which are discussed further below.

These sources confirmed that the subject property at 2118 Milvia Street is neither designated at the federal, state, or local level, nor has it been previously identified as a potentially significant historical resource or property warranting further consideration as such. However, the project site is adjacent to the Berkeley Civic Center Historic District (BCCHD), which is listed in the NRHP and is also a locally designated historic district. Two buildings which are adjacent to the project site and contributors to this historic district are also individually designated City of Berkeley Landmarks: the State Farm Insurance Company Building at 1947 Center Street and the old Federal Land Bank building, which is the current Berkeley City Hall at 2180 Milvia Street. Both the District itself and its contributors qualify as historical resources under PRC Section 21084.1.

In addition to the efforts discussed above, Rincon conducted archival research from December 2020 and January 2021 to identify property-specific information and develop the historic context for the

project site and surroundings. Research methodology focused on the review of primary and secondary source materials relating to the history and development of the area surrounding the project site. Sources included, but were not limited to, historic-period maps, aerial photographs, and written histories of the area.

Rincon conducted a field survey of the project site and immediate vicinity on August 7, 2020. The field survey served to identify built environment features in the project site and was documented by digital photography and field notes. The building on the site was examined to assess overall condition and integrity, and to identify and document any potential character-defining features. Access was limited to the public right-of-way; no interior photographs were taken. The building on the project site was recorded on California Department of Parks and Recreation 523 series forms, included in the Rincon report. A reconnaissance survey of the immediately surrounding area was also conducted to characterize the existing conditions of the BCCHD and other surrounding properties.

Evaluation

The existing building at 2118 Milvia Street is recommended ineligible for listing on the NRHP or California Register of Historical Resources (CRHR; Appendix HR). The property was constructed in downtown Berkeley in 1967. Research supports the conclusion that the property is not significant in the development of downtown Berkeley or the city as a whole, and the property is not associated with any events of pattern of events significant in the history of the city, region, state, or nation. As a result, the property is recommended ineligible for listing in the NRHP or CRHR under Criteria A/1.

No available evidence suggested either previous property owner (James Y. Smith and Nora E. Wagner) or property tenants (such as Harvey E. Wagner, founder of Teknekron, Inc.) made any significant historical contributions. The property is recommended ineligible for listing in the NRHP or CRHR under Criteria B/2.

The property does not appear eligible as a distinctive example of an architectural style or the work of a master. The building exhibits elements of Brutalist- and Late Modern-style architecture; however, these features are largely limited to its use of concrete and modular design features and is not a notable example of either style. Because it does not embody the distinctive characteristics of a type, period, or method of construction, or possess high artistic values, it is recommended ineligible for listing in the NRHP and CRHR under Criteria C/3.

A review of available evidence and records search results did not indicate that the property may yield important information about prehistory or history. As such, it is recommended ineligible for listing for the NRHP and CRHR under Criteria D/4.

In 2008, Architectural Resources Group completed the City of Berkeley *Downtown Area Plan Historical Resource Evaluation* in support of the Downtown Area Plan (DAP) (ARG 2008). The study included a reconnaissance-level survey of the DAP, which encompassed the current project site at 2118 Milvia Street. As the 2008 study was a reconnaissance-level survey, no formal NRHP, CRHR, or local eligibility assessments were completed. Rather a matrix was developed which inventoried the approximately 600 properties within the DAP area, provided preliminary integrity assessments and identified properties which were recommended for further study and evaluation on California Department of Parks and Recreation (DPR) 523 series forms. The subject property at 2118 Milvia Street is included in the matrix but was not recommended for further research or evaluation, and no comments on its integrity were noted. The report does identify the locally and federally designated Berkeley Historic Civic Center District and contributors adjacent to the project site.

Cultural Resources Report

Pacific Legacy requested a search of the California Historical Resources Information System at the Northwest Information Center (NWIC) located at Sonoma State University on January 12, 2021. The search was performed to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.25-mile radius. The California Historical Resources Information System search included a review of available records at the NWIC, as well as the NRHP, the CRHR, the Office of Historic Preservation Built Environment Resources Directory for Alameda County, the California Inventory of Historic Resources, the Archaeological Determinations of Eligibility list, and historic maps.

The NWIC records search (NWIC File No. 20-1219) identified 32 cultural resources studies conducted within 0.25-mile radius of the project site, none of which were located within the project site. The records search identified no archaeological resources in the project site; however, 88 previously recorded resources were located within the 0.25-mile radius of the project site.

As part of the process of identifying cultural resources for this project, Pacific Legacy also requested a Sacred Land database search and Local Government Tribal Consultation List from the Native American Heritage Commission (NAHC) on December 21, 2020. The NAHC responded on January 12, 2021 and stated that the Sacred Lands File search results were positive for the presence of known Native American resources within the project site, and advised contact with Amah Mutsun Tribal Band of Mission San Juan Bautista and the North Valley Yokuts Tribe for further information about the resources. A list of 10 tribal representatives with potential interest in and knowledge of the project site was also provided. All individuals on the list were contacted by Pacific Legacy via certified letter on January 15, 2021.

On January 29, 2021, Pacific Legacy archaeologists made follow-up calls and sent follow-up emails to all of the tribal representatives on the list provided by the NAHC. Irenne Zwierlein of the Amah Mutsun Tribal Band of Mission San Juan Bautista requested that a Native American monitor be present during demolition and construction activities, and that construction crews undergo cultural sensitivity training. Kanyon Sayers-Roods of the Indian Canyon Mutsun Band of Costanoan requested that a Native American monitor be present during demolition and construction activities, and that construction crews undergo cultural sensitivity training. She also recommended that the Project include public-facing information “hosting truth in history” about the Native peoples. Ms. Sayers followed up the phone call with an email dated March 23, 2021, re-iterating the previous recommendations and added a request to have Native American and archaeological monitors present on site at all times due to her understanding that the project APE overlaps or is near the boundary of a recorded and potentially eligible cultural site. All correspondence between Pacific Legacy, the NAHC, Native American stakeholders, and potential Native American stakeholders, regarding the project are included in Appendix CR.

Archival research focused on the review of a variety of primary and secondary source materials relating to the history and development of the project site and its surroundings. Sources included, but were not limited to, historic-period maps and photographs, historic-period newspaper articles, building permits, previous historic survey findings in the City of Berkeley, and written histories of the area.

The entire project site is covered by the existing building footprint. The building is surrounded by sidewalks and streets (Center and Milvia) on the east and south sides. The adjacent historical office building at 2180 Center Street to the west is also covered by the building footprint and paved areas. The area to the north is covered by a parking lot. There are no exposed soils to survey and

investigate. Therefore, no pedestrian survey was completed for this project site. Instead, more extensive archival research was completed for the parcel to determine what the potential was for discovering historic period or prehistoric archaeological resources and a California Department of Parks and Recreation 523 Series forms were completed and included as an appendix in the Pacific Legacy report.

Evaluation

The site sensitivity study indicates that the project site has the potential for Holocene to historic period occupation. The project site's proximity to Strawberry Creek and the presence of three prehistoric archaeological sites further indicate the potential for surface or buried sites within the project site. Historic period development indicates that the southeastern portion of the parcel was disturbed by the 1940s installation of buried oil and/or gas tanks. If the current office building has a shallow foundation or footings, there is potential for buried archaeological deposits in the west half or northeast portion of the parcel. Historic-era deposits could be associated with the Foss Lumberyard or adjacent early twentieth century households at 2106 and 2108 Milvia Street. Because the parcel was vacant for most of the historical period, it is likely to be difficult to determine a clear association with a particular source for historical-era archaeological deposits. Any intact prehistoric deposits would likely be significant.

Based on the results of the records search, contact with the NAHC and Native American tribal representatives, and a review of archival and environmental data, the project has a low potential to encounter significant historical-period resources and moderate to high potential to encounter surface or buried prehistoric Native American resources within the western and northeastern portions of the project site.

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

The impact analysis presented here covers built environment resources; archaeological resources that may be considered historical resources are addressed under criterion (b) below. The project site contains one building of 45 or more years of age: a three-story office building with Brutalist- and Late Modern-style architecture (the building was completed in 1967). The building has been occupied by a number of commercial and institutional tenants, starting with Teknekron (a business incubator) until the 1980s, followed by realty and property companies and the Society of Magnetic Resonance, among others (Appendix HR).

The property at 2118 Milvia Street is recommended ineligible for listing in the NRHP or the CRHR. As such, it does not qualify as a historical resource, and its demolition would not result in a significant impact to historical resources as defined by Section 15064.5 of the CEQA Guidelines.

Although the project site does not contain any historical resources, it is immediately adjacent to (but outside the boundaries of) the BCCHD. There are two contributing resources, which are also individually designated landmarks, which are the State Farm Insurance Company Building at 1947 Center Street and the old Federal Land Bank building, which is the current Berkeley City Hall at 2180 Milvia Street. The historic district and its contributing resources are significant as a collection of buildings embodying the political trends of the nation and region (NRHP Criterion A) and exhibiting the influence of Beaux Arts Classicism, Art Deco, and Art Moderne design traditions (NRHP Criterion C).

Although located outside of the project site, potential indirect impacts to these adjacent historical resources are discussed pursuant to Section 15064.5(b) of the CEQA Guidelines, which stipulates a project will result in a significant effect on the environment if it causes a substantial adverse change in the significance of a historical resource. A substantial adverse change "means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." Material impairment is constituted by an action that "alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for" listing in a historical register.

The proposed project is outside the boundaries of the BCCHD and would not directly alter contributing elements to the district. It would replace the existing three-story office building with a six-story educational building, which would extend to the lot lines of the 0.26-acre parcel. This new building would introduce a new visual element to the surrounding setting of the historic district and its contributing buildings; however, this impact would be minimal given this setting is and has historically been urban in nature. Further, the proposed six-story height of the new building is consistent with those buildings found within and adjacent to the historic district. The proposed building would therefore be generally in the same height range as these buildings and exhibit similar setbacks.

For these reasons, the project would not materially impair the surroundings of adjacent historical resources. Additionally, Mitigation Measures AES-1 through AES-3 (refer to Section 1, *Aesthetics*) would ensure that the project would not result in a substantial adverse change to the setting of the BCCHD and its contributing resources. Impacts would be less than significant with mitigation incorporated.

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

The analysis presented here considers both historical and unique archaeological resources. The records search revealed that no previously recorded cultural resources are within the project site, and that 88 are present within a 0.25-mile radius. Of these, 85 are built environment resources and three are prehistoric archaeological sites. The Sacred Land database search was positive for the presence of known Native American resources within the project site. Tribal outreach with Native American tribes did not identify any specific resources.

Archival research indicates that although neighboring parcels were developed as a lumber yard and early twentieth century residences, the project site remained vacant until the 1941 construction of a gas and oil service station. The service station had three underground tanks in the southeast portion of the parcel. In 1966, the current three-story office building replaced the service station. It is not clear whether or not the underground tanks were removed.

As previously indicated, the site sensitivity study indicates that the project site has the potential for Holocene to historic period occupation. The project site's proximity to water and the presence of prehistoric archaeological sites further indicate the potential for surface or buried sites within the project site. Previous historical development Historic period development indicates that the southeastern portion of the parcel was previously disturbed. Based on the proposed construction activities, there is potential for buried archaeological deposits in the west half or northeast portion of the parcel.

Based on the results of literature review, the records search and Native American outreach, the project has a low potential to encounter significant historical-period resources and moderate to high potential to encounter surface or buried prehistoric Native American resources within the western and northeastern portions of the project site. Post demolition surface survey and limited mechanical trenching/potholing testing in the northeast and western portions of the parcel is recommended to identify stratigraphy and presence or absence of cultural materials to a 5-foot depth. If the final geotechnical investigation determines a deep foundation system is necessary, coring may be necessary to determine stratigraphy, depth of fill or native soils and disturbances.

Due to the sensitivity of the area, impacts to as-yet unrecorded archaeological resources would be potentially significant. Implementation of Mitigation Measures CUL-1 through CUL-3 would be required to reduce potential impacts to archaeological resources to less than significant levels by ensuring that unanticipated finds during construction are evaluated and treated by a qualified archaeologist.

Mitigation Measures

CUL-1 Archaeological Testing Program

Following demolition and pavement removal and prior to project-related ground disturbance, the District shall require that a surface survey and an Extended Phase I (XPI) archaeological testing program be performed within the project site. A detailed workplan shall be prepared to identify the methods and specific locations of testing units, including limited mechanical trenching/potholing testing in the northeast and western portions of the parcel to identify stratigraphy and presence or absence of cultural materials to at least a 5-foot depth. If the final geotechnical investigation determines a deep foundation system is necessary, the XPI shall include coring to determine stratigraphy, depth of fill or native soils and disturbances below 5 feet. This study shall be conducted by a qualified archaeologist under the direction of a qualified principal investigator and in accordance with CEQA. Should a subsurface resource be found during the testing, additional studies such as a Phase II investigation would be required to determine if the resource is eligible for the CRHR and/or the NRHP. Testing shall be observed by a Native American monitor (refer to Mitigation Measure CUL-3 for Unanticipated Discovery protocol). The District shall review and approve the XPI, workplan, and any additional studies determined to be necessary.

CUL-2 Archaeological and Native American Monitoring

The District shall retain a qualified archaeologist and local Native American representative to monitor project-related ground-disturbing activities. Monitoring shall involve inspection of subsurface construction disturbance. The Native American monitor shall also observe all archaeological excavation. The District shall confirm archaeological monitoring is conducted and review and approve work products produced by the qualified archaeologist in accordance with this measure.

CUL-3 Unanticipated Discovery of Archaeological Resources

In the event that cultural resources are encountered during ground-disturbing activities, the District shall require the construction contractor to halt work within 50 feet of the find and the District shall retain an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) immediately to evaluate the significance of the find. If

the discovery proves to be eligible for listing on the CRHR and/or NRHP, the qualified archaeologist shall complete the following conditions to mitigate impacts to the eligible resource:

1. **Evaluate Cultural Resource.** If cultural resources are encountered during construction activities, the District shall require the construction contractor to halt work within 50 feet of the find. Lathe staking or flagging tape may be utilized to designate the area. The District shall retain an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) immediately to evaluate the significance of the resource before allowing construction in the area to continue. Depending on if the resources meets the eligibility criteria for listing on the CRHR and/or NRHP, the archaeologist may simply document the find and allow work to continue with monitoring. If the discovery is determined to be eligible for either register, an archaeological treatment plan shall be prepared and implemented to recover data necessary to assist in answering question of interest to the broader cultural and scientific communities. Resources that do not meet the criteria for either register will be presumed not eligible and construction activities with an archaeological monitor present can continue in the affected area.
2. **Archaeological Treatment Plan.** If eligible resources under either register are exposed during construction activities, an archaeological treatment plan may be warranted. The main goals of the treatment plan are to reduce adverse effects to California and National register eligible resources within the project site to less than significant. The level of effort required for data recovery is directly proportional to the anticipated impacts (adverse effect) associated with the proposed undertaking. There are a multitude of options of mitigation available with avoidance and/or preservation being preferred mitigation. This plan will include background information on the project site, regulatory context, environmental and cultural context, and then directions guiding the processes such as monitoring, evaluation, testing and data recovery, artifact curation and conclusions. If archaeological monitoring is warranted during the project, a section documenting the monitoring results will be included.
3. **Testing or Data Recovery.** If a resource was previously evaluated and determined to meet the criteria for eligibility for the CRHR and/or NRHP and avoidance or preservation are not possible, data recovery is warranted. The data recovery process will be guided by the archaeological treatment plan as well as research questions developed during evaluation. A sampling strategy of excavation is acceptable if excavation and full exposure of the resource would result in redundant data. Presence/absence testing methods such as shovel test units will be utilized to determine the extent of the resource. With the extent documented, data recovery excavations will focus on test units. However, archaeologists have numerous excavation methodologies that are based on the characteristics of the individual site. Data recovery is intended to provide a sufficient sample of the resource to exhaust the research potential and answer any research questions posed in the archaeological treatment plan. The extent of excavations will be determined by the type of resource.
4. **Preparation and Curation.** All artifacts recovered during project related construction activities will be curated at a facility meeting California and national standards.

Upon completion of ground disturbing activity (and curation of artifacts if necessary) the qualified archaeologist shall prepare a final report describing the results of the archaeological monitoring efforts associated with the project, if warranted. The report shall include a summary of the field methods, an overview of the project cultural background, a list of artifacts recovered, an analysis of artifacts recovered (if any) and their scientific significance, and recommendations. The report shall

be submitted to the District for review and approval and provided to the California Historical Resources Information System at the NWIC located at Sonoma State University.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance may occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD would complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access. With adherence to existing regulations, impacts to human remains will be less than significant.

LESS THAN SIGNIFICANT IMPACT

6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	■	☐

Electricity Setting

In 2019, California's in-state electricity generation totaled 277,704 gigawatt-hours (GWh; CEC 2020a). Primary fuel sources for the state's electricity generation in 2019 included natural gas, hydroelectric, solar photovoltaic, wind, nuclear, geothermal, biomass, and solar thermal. According to the 2019 Integrated Energy Policy Report, California's electric grid relies increasingly on clean sources of energy such as solar, wind, geothermal, hydroelectricity, and biomass. In addition, by 2025 the use of electricity sourced from out-of-state coal generation will be eliminated. As this transition advances, the grid is also expanding to serve additional loads produced by building and vehicle electrification among other factors. California produces more renewable energy than any other state in the U.S. with 23,313 megawatts of installed renewable capacity (CEC 2020b).

East Bay Community Energy

EBCE supplies electricity to the City of Berkeley using transmission infrastructure operated and maintained by PG&E. EBCE is a community-governed, local power supplier that provides cleaner electricity to Alameda County residents and businesses. As of 2019, EBCE's energy intensity factor for its base plan (Bright Choice) consists of a minimum of 60 percent eligible renewable energy resources (EBCE 2020). PG&E is one of the nation's largest electric and gas utility companies, and it maintains 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines (PG&E 2020a). According to PG&E's 2020 Integrated Resource Plan, PG&E anticipates meeting a 2030 gross system usage of 82,306 GWh (PG&E 2020b).

As shown in Table 9, Alameda County consumed approximately 10,687 GWh in 2019, which was approximately 13.7 percent of electricity consumption by PG&E customers and approximately 4 percent of statewide electricity consumption (CEC 2019a).

Table 9 2019 Electricity Consumption

Energy Type	Alameda County (GWh)	PG&E (GWh)	California (GWh)	Proportion of PG&E Consumption	Proportion of Statewide Consumption
Electricity	10,687	78,072	279,402	13.7%	3.82%

GWH = gigawatt-hours

Source: CEC 2019a

Natural Gas Setting

Berkeley Municipal Code Chapter 12.80 prohibits the use of natural gas infrastructure in all new construction. The proposed project would comply with this requirement.

Petroleum Setting

California is one of the top producers of petroleum in the nation with drilling operations occurring throughout the state but concentrated primarily in Kern and Los Angeles counties. A network of crude oil pipelines connects production areas to oil refineries in the Los Angeles area, the San Francisco Bay area, and the Central Valley. California oil refineries also process Alaskan and foreign crude oil received at ports in Los Angeles, Long Beach, and the San Francisco Bay area (CEC 2020c). According to the U.S. Energy Information Association, California's field production of crude oil totaled 161.5 million barrels in 2019 (U.S. Energy Information Association 2020).

As shown in Table 10, Alameda County consumed an estimated 591 million gallons of gasoline and 55 million gallons of diesel fuel in 2019, which was approximately 4 percent of statewide gasoline consumption and approximately three percent of statewide diesel fuel consumption (CEC 2019b).

Table 10 2019 Annual Gasoline and Diesel Consumption

Fuel Type	Alameda County (million gallons)	California (billion gallons)	Proportion of Statewide Consumption
Gasoline	591	15.365	3.8%
Diesel	55	1.756	3.1%

Source: CEC 2019b

Methodology

Energy consumption is analyzed herein in terms of construction and operational energy. Construction energy demand accounts for anticipated energy consumption during project construction, such as fuel consumed by construction equipment and construction workers' vehicles traveling to and from the project site. Operational energy demand accounts for the anticipated energy consumption during project operation, such as fuel consumed by cars, trucks, and public transit; natural gas consumed for on-site power generation, and heating building space; and electricity consumed for building power needs, including, but not limited to lighting, water conveyance, and air conditioning.

The CalEEMod outputs for the air quality and greenhouse gas (GHG) modeling (Appendix AQ) and the vehicle miles traveled (VMT) calculations (Appendix TRA) were used to estimate energy

consumption associated with operation of the proposed project. The CalEEMod results provide the average travel distance and trip numbers during construction, and the vehicle fleet mix during operation. The CalEEMod results also provide the estimated gross electricity by land use during project operation.

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

Construction

During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. The proposed project would require demolition; site preparation and grading; pavement and asphalt installation; building construction; architectural coating; and hardscaping.

As shown in Table 11 below, project construction would require approximately 7,460 gallons of gasoline and 66,052 gallons of diesel fuel. Energy use would be temporary, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of CCR Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption.

Table 11 Project Construction Energy Usage

	Fuel Consumption (Gallons)	
Source	**Gasoline**	**Diesel**
Construction Equipment & Hauling Trips	–	66,052
Construction Worker Vehicle Trips	7,460	–

See Appendix AQ for CalEEMod default values for fleet mix and average distance of travel, and Appendix NRG for energy calculation sheets.

In addition, per applicable regulatory requirements such as 2019 CalGreen, the project would comply with construction waste management practices to divert a minimum of 65 percent of construction and demolition debris. These practices would result in efficient use of energy necessary to construct the project. Furthermore, in the interest of cost-efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary. Therefore, project construction would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant.

Operation

Project operation would require energy use in the form of electricity and gasoline consumption. Electricity would be used for heating and cooling systems, lighting, appliances, water use, and the overall project operation. As described in the *Natural Gas Setting* section above, operation of the new structure would be all-electric, consistent with the requirements of Berkeley Municipal Code Chapter 12.80. Gasoline consumption would be attributed to vehicular travel from students, staff,

and visitors traveling to and from the project site. Table 12 shows the project's estimated total annual gasoline and diesel fuel consumption, as well as electricity use.

Table 12 Project Operational Energy Usage

Source	Energy Consumption	
Vehicle Trips		
Gasoline	73,895 gallons	8,113 MMBtu
Diesel	16,463 gallons	2,098 MMBtu
Built Environment		
Electricity	539 MWh	1,838 MMBtu

MWh = megawatt-hours; MMBtu = million British thermal units
Source: Appendix NRG

As shown in Table 12, project operation would consume approximately 539 megawatt-hours of electricity per year. The project would comply with standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. CalGreen (as codified in CCR Title 24, Part 11) requires implementation of energy-efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy performance standards set by the CEC. These standards are specifically crafted for new buildings to achieve energy efficient performance. The standards are updated every three years, and each iteration increases energy efficiency standards. Furthermore, the project would be served by EBCE, and per the College's Sustainability and Resiliency Strategy, would enroll in the Brilliant 100 energy package offered by EBCE.

In addition, the project's vehicle trips would require approximately 73,864 gallons of gasoline and 16,470 gallons of diesel fuel annually. The project site is located in close proximity to existing transit facilities and facilities supporting alternative transportation modes such as walking and biking. The site is within walking distance of several bus stops for AC Transit, including stops for routes 18, 51B, 52, 65, 67, 79, 88, 800, and F, as well as the Downtown Berkeley BART station. As a result, as discussed in Section 17, *Transportation*, the project is located in a low-VMT area, in a transportation analysis zone (TAZ) that is below the 15 percent minus the citywide average or countywide average VMT thresholds, and is located within 0.5 mile of a major transit stop. Therefore, the project would continue to generate vehicle trips with relatively low VMT. These factors would minimize the project's potential to result in the wasteful, inefficient, or unnecessary consumption of vehicle fuels. Therefore, project operation would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The City's Climate Action Plan (CAP) contains recommended goals intended to increase energy efficiency and expand the use of renewable energy. As a State entity, the District is not required to comply with the City's CAP. Additionally, Berkeley City College maintains a Sustainability and Resiliency Strategy, which includes various policies and measures related to the District's sustainability goals. As described in Section 4, *Project Characteristics*, subsection *Green Building Features*, the project would implement sustainability measures consistent with the Berkeley City College Sustainability and Resiliency Strategy, including measures E-1, E-2, E-3, E-4, E-5, TR-2, TR-3, TR-4, TR-8, TR-10, TR-11, WR-2, SW-2, SW-5, SW-9, and SW-11, as described in Section 4, *Project Characteristics*, subsection *Green Building Features*, which would reduce the project's electricity demand, transportation energy demand, water demand, and solid waste generation.

Table 13 summarizes the project's consistency with the applicable policies of the City's CAP related to energy efficiency and renewable energy for informational purposes. Goals 1, 5, and 7 would reduce fuel consumption by prioritizing and incentivizing the use of alternative modes of transportation, reducing total transportation energy demand. As shown therein, the proposed project would be consistent with applicable policies. Therefore, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

Table 13 Project Consistency with City of Berkeley Climate Action Plan Policies

Goals and Policies	Project Consistency
1. Goal: Increase density along transit corridors. Direct new development to locations that are close to transit and have retail and other services within walking distance (such as the Downtown)	**Consistent.** The project would increase the density of use on the site and would provide educational and community-serving services in Downtown Berkeley, in an area dense with retail and other services and within a block of the Berkley BART station and numerous AC Transit bus routes.
5. Goal: Accelerate Implementation of the City's Bicycle & Pedestrian Plans **a. Policy:** Continue to expand and improve Berkeley's bicycle and pedestrian infrastructure	**Consistent.** While the project would not result in modifications of local roadways or bicycle and pedestrian facilities, it would include on-site bicycle parking on the first floor of the proposed structure, improving Berkeley's bicycle infrastructure. The project would maintain the existing pedestrian infrastructure (sidewalks located along the site frontage with Milvia Street and Center Street).
7. Goal: Enhance and expand car sharing and ridesharing programs **a. Policy:** Make car sharing convenient and available to all Berkeley residents by providing additional incentives and by removing disincentives to car sharing **b. Policy:** Provide incentives and remove disincentives to ridesharing	**Consistent.** As noted in Section 4, *Project Characteristics*, subsection *Green Building Features*, the project would expand car sharing programs by offering a carpool matching program and vanpooling program for employees. This would promote ridesharing as a viable means of transportation for staff and faculty to the project site. The lack of vehicle parking would incentivize car- and ridesharing for those users not traveling via bicycle or transit.
4. Goal: Increase residential and commercial renewable energy use **c. Policy:** Consider Community Choice Energy	**Consistent.** The project would include the installation of solar panels on the structure's roof and would connect to 100 percent renewable energy through EBCE.

Source: City of Berkeley 2009a

LESS THAN SIGNIFICANT IMPACT

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7 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:				
1. 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?	☐	☐	☐	■
2. Strong seismic ground shaking?	☐	■	☐	☐
3. Seismic-related ground failure, including liquefaction?	☐	■	☐	☐
4. 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 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	■	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

Much of the analysis in this section is based on the information in the Geotechnical Investigation prepared for the proposed project by Terraphase Engineering Inc. in June 2017. The report is included as Appendix GEO. The purpose of the investigation was to determine the nature of the surface and subsurface soil conditions and potential constraints at the project site. The report presents an evaluation of existing soil conditions and recommendations for earthwork and foundation design to adapt the proposed development to the existing soil conditions.

Geologic Setting

Berkeley is situated within the Coast Ranges geomorphic province of California (California Geological Survey 2003). A geomorphic province is a region of unique topography and geology that is readily distinguished from other regions based on its landforms and geologic history (Norris and Web 1990). The Coast Ranges extend about 600 miles from the Oregon border south to the Santa Ynez River in Santa Barbara County. The Coast Ranges are composed of a complex assemblage of geologic units, including Mesozoic metasedimentary and metavolcanic rock of the Franciscan Complex, marine and nonmarine sedimentary rock of the Cretaceous Great Valley Complex, and Cenozoic marine and nonmarine shale, sandstone, and conglomerate (Norris and Webb 1990).

Specifically, Berkeley is located on the East Bay Plain (the Plain), a flat area that extends 50 miles from Richmond in the north to San Jose in the south. The Plain is about 3 miles wide in the Berkeley area. At its eastern edge, the plain transitions into hills, rising to approximately 1,683 feet at Barberry Peak, the highest point in Berkeley's Claremont Hills neighborhood. On its western edge, the Plain slopes down to San Francisco Bay, the largest estuary on the California coast (City of Berkeley 2003; Maplogger.com 2018).

Berkeley is located in the U.S. Geological Survey's (USGS) Richmond and Oakland West Quadrangle 7.5-minute topographic map areas. The area is typified by low topographic relief, with gentle slopes to the west in the direction of San Francisco Bay. By contrast, the Berkeley Hills that lie directly east of Berkeley have more pronounced topographic relief, with elevations that exceed 1,000 feet above mean sea level (City of Berkeley 2003).

As mapped by the U.S. Department of Agriculture, Natural Resource Conservation Service, the project site features Tierra complex slopes that have from 2 to 5 percent slopes. Soils in the Tierra complex present a high rate of surface runoff and high shrink-swell potential (U.S. Department of Agriculture 1981, 2020).

Seismic Setting

Similar to much of California, the project site is located in a seismically active region. The USGS defines active faults as those that have had surface displacement within the Holocene period (about the last 11,000 years). Surface displacement can be recognized by the existence of cliffs in alluvium, terraces, offset stream courses, fault troughs and saddles, the alignment of depressions, sag ponds, and the existence of steep mountain fronts. Potentially active faults are those that have had surface displacement during the last 1.6 million years, and inactive faults have not had surface displacement within that period. Several faults are near the project site, including those listed below:

- **The San Andreas Fault**, the most likely source of a major earthquake in California, is located approximately 17.4 miles west of the project site. The San Andreas Fault is the primary surface boundary between the Pacific and the North American plates. There have been numerous historic earthquakes along the San Andreas Fault, and it generally poses the greatest

earthquake risk to California. In general, the San Andreas Fault is likely capable of producing a Maximum Earthquake Magnitude of 7.9 (Appendix GEO).

- **The Hayward Fault**, one of ten major faults that make up the San Andreas Fault Zone, runs east of the along the eastern portion of Berkeley and links with the Rodgers Creek Fault to the north. Although the last major earthquake generated by the Hayward Fault was in 1868, pressure is slowly building again and will begin to overcome the friction and other forces that cause the fault zone to stick. The Hayward Fault can generate a Maximum Earthquake Magnitude of 6.9 (Appendix GEO). The Hayward Fault would likely cause extensive damage throughout Berkeley area due to its close proximity to urban communities and infrastructure. The Hayward Fault and surrounding area is a designated Alquist-Priolo Zone. The project site is approximately 1 mile west of the Hayward Fault.
- **Other active faults** near the site include the Calaveras, Concord-Green Valley, Rodgers Creek, Greenville, San Gregorio, West Napa, Great Valley, and Monte Vista-Shannon faults, within 30 miles of the project site. These faults have the potential to create earthquakes with a Maximum Earthquake Magnitude up to 7.3 (Appendix GEO).

Liquefaction and Seismically Induced Settlement

Liquefaction can be induced by cyclic loading (shaking) from an earthquake, which can cause granular materials to lose their inherent shear strength due to increased pore water pressures. Some of the factors that typically contribute to liquefaction risk include a shallow water table, low relative density of granular materials below the groundwater table, low soil cohesion or plasticity, low percentage of fine-grained material in soil, relatively long seismic shaking duration, and high ground acceleration during earthquakes. The project site is not mapped in a liquefaction hazard zone (Appendix GEO).

Landslides

Landslides result when the driving forces that act on a slope (i.e., the weight of the slope material, and the weight of objects placed on it) are greater than the slope's natural resisting forces (i.e., the shear strength of the slope material). Slope instability may result from natural processes, such as the erosion of the toe of a slope by a stream, or by ground shaking caused by an earthquake. Slopes can also be modified artificially by grading, or by the addition of water or structures to a slope. Development that occurs on a slope can substantially increase the frequency and extent of potential slope stability hazards. Areas susceptible to landslides are typically characterized by steep, unstable slopes in weak soil/bedrock units which have a record of previous slope failure. As the project site is essentially flat, no significant landslide risk exists (Appendix GEO).

Subsidence

Land subsidence, generally caused by excessive groundwater withdrawal, is unlikely to occur in downtown Berkeley. Because of environmental concerns the groundwater in Berkeley is not a resource likely to be tapped. The potential for land subsidence to affect the project site is considered to be low (Appendix GEO).

Expansive Soils

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moistures that can trigger this shrink-swell phenomenon include seasonal rainfall, landscape irrigation, utility leakage,

and/or perched groundwater. Expansive soil can develop wide cracks in the dry season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavement. Special building/structure design or soil treatment are often needed in areas with expansive soils. The geotechnical investigation indicates that surficial soils have a low expansion potential, while soils between 5 and 6 feet below ground surface have a very high expansion potential at the site.

Erosion

Erosion is the wearing away of the soil mantle by running water, wind or geologic forces. It is a naturally occurring phenomenon and ordinarily is not hazardous. However, excessive erosion can contribute to landslides, siltation of streams, undermining of foundations, and ultimately the loss of structures. Removal of vegetation tends to heighten erosion hazards.

Paleontological Setting

The project site is underlain by one mapped geologic unit: late to middle Holocene alluvial fan and fluvial deposits (Qhaf) (Appendix GEO, Figure 4). Holocene-aged alluvial fan and fluvial deposits consist of medium dense to dense, gravelly sand or sandy gravel of valleys and stream channels.

The potential for the project to result in significant impacts to paleontological resources was evaluated based on its potential to disturb paleontologically sensitive geologic units during construction. The analysis involved a review of pertinent geologic maps and geologic literature, and a paleontological locality search to identify any known fossil localities within the area, or from geologic units mapped in the area. Fossil collections records from the Paleobiology Database and University of California Museum of Paleontology (UCMP) online database were reviewed to identify known fossil localities in Alameda County (Paleobiology Database 2020; UCMP 2020). Following the geologic map review, literature review, and UCMP database search, a paleontological sensitivity was assigned to the geologic units mapped within the area based on Society of Vertebrate Paleontology (SVP) guidelines (SVP 2010). The SVP has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources (SVP 2010). This system is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

Late to middle Holocene deposits (Qhaf) are too young (i.e., less than 5,000 years old) to preserve paleontological resources at or near the surface, and are considered to have a low paleontological sensitivity at the surface as defined by SVP (2010) standards; however, late to middle Holocene deposits may grade downward into more fine-grained deposits of early Holocene to late Pleistocene age that could preserve fossil remains at shallow or unknown depths. The depths at which these units become old enough to contain fossils is highly variable, and depend on the location of the site within a geologic basin (e.g., near or far from basin margins), the sedimentary relationship of the surface units underlying geologic units, and the erosional history of the region. The project is located near the base of the hills where older geologic units are exposed. Early Holocene to late Pleistocene alluvial sediments have a well-documented record of abundant and diverse vertebrate fauna throughout California. Localities have produced fossil specimens of mammoth (*Mammuthus columbi*), horse (*Equus*), camel (*Camelops*), and bison (*Bison*), as well as various birds, rodents, and reptiles (Jefferson 1985, 2010; Paleobiology Database 2020; UCMP 2020). Therefore, areas mapped as Late to middle Holocene deposits (Qhaf) alluvial deposits are assigned a high paleontological sensitivity at depths greater than 3 feet (SVP 2010).

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

According to the geotechnical investigation, the project site is not located within an identified earthquake fault zone as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map (Appendix GEO). No known fault lines are located on the site. The closest active fault is the Hayward Fault, which is located approximately 1 mile east of the site. Thus, the likelihood of surface rupture occurring from active faulting at the site is remote. No impact would occur.

NO IMPACT

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

As with any site in the Bay Area region, the project site is susceptible to strong seismic ground shaking in the event of a major earthquake. As described in the *Seismic Setting* section above, nearby active faults include the San Andreas Fault and the Hayward Fault. These faults are capable of producing strong seismic ground shaking within and near the project site.

Several applicable regulations and policies would reduce hazards related to seismic ground shaking. The proposed project would involve replacement of an older structure more subject to seismic damage with a new one built to current seismic standards that could better withstand the adverse effects of strong ground shaking. The project would be required to conform to the CBC (as amended at the time of DSA approval) as required by law. The CBC includes requirements for foundation and structural design to resist seismic hazards. In addition, the CBC outlines specific instances of when geotechnical investigations are required based on soil conditions and proposed construction methods. Such investigations are required to include, among other information, recommendations for foundation type and design criteria to address identified geological constraints. To ensure that building design addresses seismic ground shaking, Mitigation Measure GEO-1 would be required.

The geotechnical investigation would include recommended design measures to mitigate geologic hazards, which the project would be required to implement. Impacts related to seismic shaking would be less than significant with implementation of Mitigation Measure GEO-1.

Mitigation Measure

GEO-1 Final Geotechnical Investigation

The District shall retain a registered civil engineer and certified engineering geologist to complete a final geotechnical investigation of the project site and all proposed areas of excavation. The geotechnical evaluation shall include, but not be limited to, an estimation of both vertical and horizontal anticipated peak ground accelerations and potential for liquefaction, soil expansion, and landslides. The geotechnical investigation shall determine appropriate means of mitigating both structural as well as potential health hazards that could be associated with such development activities.

Suitable measures to reduce liquefaction impacts could include one or more of the following techniques, as determined by a registered geotechnical engineer:

- Specialized design of foundations by a structural engineer

- Removal or treatment of liquefiable soils to reduce the potential for liquefaction
- Drainage to lower the groundwater table to below the level of liquefiable soil
- In-situ densification of soils or other alterations to the ground characteristics
- Other alterations to the ground characteristics

The final geotechnical investigation shall also:

- Identify depth to groundwater throughout the project site (including estimated variability over the life of the project) and provide methods to avoid adverse effects associated with encountering groundwater during project-related excavations, including but not limited to dewatering as necessary.
- Include recommendations to accommodate a differential settlement of 0.3 inches.

The final geotechnical report shall be reviewed and approved by the District and DSA. All recommendations provided in the geotechnical report shall be followed during grading and construction at the site.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

As described above, the project site is not located in a mapped liquefaction zone, would not be susceptible to landslide due to its flat topography, and is not likely to be affected by subsidence. The geotechnical investigation found potentially liquefiable soils from 30 to 33 feet below ground surface; however, given the depth of this layer, a significant differential settlement at the ground surface is not anticipated (Appendix GEO). However, per Mitigation Measure GEO-1, the final geotechnical investigation would include recommendations to ensure that the proposed structure is designed to accommodate a differential settlement of 0.3 inches. Therefore, structure design consistent with the final geotechnical investigation would ensure that potential impacts would be less than significant with mitigation.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

As noted in the *Seismic Setting* Section above, landslides are typically a hazard on or near slopes or hillside areas, rather than generally level areas like the project site and the surrounding area. According to the geotechnical investigation, the site is not located in an earthquake-induced landslide hazard zone (Appendix GEO). The area is generally flat and is not surrounded by hillsides. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is developed and generally level, which limits the potential for substantial soil erosion. Soils are exposed to the highest potential for erosion during the grading and excavation phases of construction. Project-related ground-disturbing activities would include excavation and grading primarily for foundations, building pads, and utility trenches. Temporary erosion could occur during project construction, such as increased erosion and sediment transport by stormwater and wind. Therefore, the proposed project's erosion impacts would be potentially significant, and Mitigation Measure GEO-2 would be required to reduce impacts.

During project operation, the site would be fully developed with the proposed structure. Topsoil would not be exposed to erosion forces such as precipitation and wind. Therefore, project impacts would be less than significant with mitigation.

Mitigation Measure

GEO-2 Erosion Control Plan

The project contractor shall prepare and implement an Erosion Control Plan for construction activities to minimize soil erosion. The Erosion Control Plan shall contain best management practices (BMP) that include the following components:

- Excavation shall be limited to the dry season of the year (i.e., April 15 to November 1).
- Exposed soils shall be watered twice daily to prevent wind erosion.
- Silt fencing, straw bales composed of rice straw (that are certified to be free of weed seed), fiber rolls, gravel bags, mulching erosion control blankets, soil stabilizers, and storm drain filters shall be used, in conjunction with other methods, to prevent erosion throughout the entire project site.
- Temporary berms and sediment basins shall be constructed to avoid unnecessary siltation into local stormwater drainage facilities during construction activities.
- Erosion controls that protect and stabilize stockpiles and exposed soils shall be used to prevent movement of materials. Potential erosion control devices include plastic sheeting held down with rocks or sandbags over stockpiles, silt fences, or berms of hay bales.
- Temporary stockpiling of excavated material shall be minimized. Excavated material shall be stockpiled in areas where it cannot enter adjacent stormwater drainage facilities.
- Frequency of sediment removal, location of spoil disposal, locations and types of erosion and sediment control structures, and materials that would be used on-site during construction activities shall be specified.
- Upon completion of project construction, all exposed soils present in and around the project site shall be stabilized within seven days. Exposed soils shall be mulched to prevent sediment runoff and transport. All mulches, except hydro-mulch, shall be applied in a layer not less than 2 inches deep. Where feasible, all mulches shall be kneaded or tracked-in with track marks parallel to the contour, and tackified as necessary to prevent excessive movement. All exposed soils and fills shall be revegetated with deep-rooted, native, drought-tolerant species to minimize slope failure and erosion potential. Geotextile binding fabrics shall be used if necessary to hold slope soils until vegetation is established.

- An adequate supply of erosion control materials (gravel, straw bales, shovels, etc.) shall be maintained on-site to facilitate a quick response to unanticipated storm events or emergencies.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Expansive soils are characterized by high clay content which expands when saturated with water and shrinks when dry, potentially threatening the integrity of buildings and infrastructure foundations. Expansive soils are described as having high shrink-swell potential. The geotechnical investigation indicates that while some soils below the site have a very high expansion potential, because the water table is very shallow and the entire site is paved, the foundation soil moisture content would not be expected to change significantly and expansion or shrinkage of the clay soils is unlikely. The geotechnical investigation also found no indications of building distress at the existing structure indicative of differential settlements (e.g., diagonal cracks in masonry walls). Additionally, the CBC includes requirements for building construction on expansive soils, including conducting additional studies, if needed, and special design features to ensure no adverse effects to new structures from soil expansion. Impacts associated with expansive soils would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site would be served by the municipal sewer system and would not require the installation of an on-site septic tank or alternate wastewater treatment systems. Therefore, no impacts from septic systems or alternative wastewater disposal systems would occur.

NO IMPACT

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

Project construction would involve ground disturbance during demolition and site preparation. As described in the *Paleontological Setting* Section above, because the site is underlain by geologic units assigned a high paleontological sensitivity at depths of 3 feet and deeper, paleontological resources may be encountered during ground-disturbing activities. Construction activities may result in the destruction, damage, or loss of undiscovered scientifically important paleontological resources; this would be a potentially significant impact, and Mitigation Measure GEO-3 would be required. Implementation of Mitigation Measure GEO-3 would reduce potential impacts to significant paleontological resources to less than significant levels.

Mitigation Measure

GEO-3 Paleontological Resources

The District shall retain a qualified paleontologist prior to excavations or ground disturbance that will exceed 3 feet in depth. The qualified paleontologist shall direct all mitigation measures related to paleontological resources. A qualified professional paleontologist is defined by the SVP standards

as an individual preferably with an M.S. or Ph.D. in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of California, and who has worked as a paleontological mitigation project supervisor for a least two years (SVP 2010).

In the event of a fossil discovery by the paleontological monitor or construction personnel, all work within 50 feet of the find shall cease. A qualified paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the qualified paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources:

1. **Salvage of Fossils.** If fossils are discovered, the qualified paleontological shall have the authority to halt or temporarily divert construction equipment within 50 feet of the find until the monitor and/or lead paleontologist evaluate the discovery and determine if the fossil may be considered significant. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the construction contractor may be requested to supply heavy equipment and an operator to assist in the rapid removal of a large fossil specimen(s) or sediment sample(s). Bulk matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically-sensitive Quaternary old alluvial deposits.
2. **Preparation and Curation of Recovered Fossils**. Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection (such as the UCMP), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the qualified paleontologist.

Upon completion of ground disturbing activity (and curation of fossils if necessary) the qualified paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The report shall be submitted to the District. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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8 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?	☐	☐	■	☐

Overview of Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of GHG emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Anthropogenic activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the concentration of GHGs in the atmosphere that trap heat. Since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (USEPA 2020). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (State of California 2018).

Regulatory Framework

State Regulations

In response to climate change, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) by 2020 and the

adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the Governor signed Senate Bill (SB) 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of carbon dioxide equivalents (CO_2e) by 2030 and two MT of CO_2e by 2050 (CARB 2017).

Other relevant state laws and regulations include:

- **SB 375**: The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. Metropolitan Planning Organizations are required to adopt a Sustainable Communities Strategy, which allocates land uses in the Metropolitan Planning Organization's Regional Transportation Plan. On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The ABAG and Metropolitan Transportation Commission (MTC) was assigned targets of a 10 percent reduction in per capita GHG emissions from passenger vehicles from 2005 levels by 2020 and a 19 percent reduction in per capita GHG emissions from passenger vehicles from 2005 levels by 2035. ABAG adopted the Plan Bay Area 2040 in July 2017, which meets the requirements of SB 375.
- **SB 100**: Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.
- **California Building Standards Code (CCR Title 24)**: The California Building Standards Code consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards. Part 6 is the Building Energy Efficiency Standards, which establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. Part 12 is CalGreen, which includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures.

Regional and Local Regulations

BAAQMD is responsible for enforcing standards and regulating stationary sources in its jurisdiction. BAAQMD regulates GHG emissions through specific rules, regulations, and project and plan level emissions thresholds for GHGs to ensure that the Bay Area contributes to its fair share of emissions reductions. In 2013, BAAQMD adopted a resolution that builds on state and regional climate protection efforts by:

- Setting a goal for the Bay Area region to reduce GHG emissions by 2050 to 80 percent below 1990 levels
- Developing a Regional Climate Protection Strategy to make progress towards the 2050 goal, using BAAQMD's Clean Air Plan to initiate the process
- Developing a 10-point work program to guide the BAAQMD's climate protection activities in the near-term

The BAAQMD is developing the Regional Climate Protection Strategy, but has outlined the 10-point work program, which includes policy approaches, assistance to local governments, and technical programs that will help the region make progress toward the 2050 GHG emissions goal.

PLAN BAY AREA 2040

Plan Bay Area 2040 is a state-mandated, integrated long-range transportation, land-use, and housing plan adopted by MTC and ABAG in July 2017 that supports a growing economy, provides more housing and transportation choices, and reduces transportation-related pollution in the nine-county San Francisco Bay Area. *Plan Bay Area 2040* builds on earlier efforts to develop an efficient transportation network and grow in a financially and environmentally responsible way. *Plan Bay Area 2040* will be updated every four years to reflect new priorities. The goals of *Plan Bay Area 2040* related to GHG emissions include (MTC and ABAG 2017a, 2017b):

1. **Climate Protection.** Reduce per capita CO_2 emissions.
2. **Healthy and Safe Communities.** Reduce adverse health impacts.
3. **Open Space and Agricultural Preservation.** Direct development within urban footprint.
4. **Transportation.** Increase non-auto mode share.

Plan Bay Area 2040 also identifies nearly 200 Priority Development Areas, which are existing neighborhoods served by public transit that MTC, ABAG, and local governments have identified as suitable for additional, compact development to focus future growth.

CITY OF BERKELEY CLIMATE ACTION PLAN

The City of Berkeley adopted a CAP in 2009 with the goal of reducing community GHG emissions by 80 percent below 2000 levels by 2050. As a State entity, the District is not required to comply with the City's CAP. The core recommendation strategies and actions of the CAP center around the following topics (City of Berkeley 2009a):

1. Sustainable Transportation and Land Use
2. Building Energy Use
3. Waste Reduction and Recycling
4. Community Outreach and Empowerment
5. Preparing for Climate Change Impacts

While the CAP is not considered a "qualified greenhouse gas reduction plan" for the purposes of streamlining GHG emissions analysis under CEQA, it is actively used by the City for GHG reductions. Since publication of the CAP, the City has outlined several additional climate commitments:

- 80 percent GHG reductions by 2050 (from 2000)
- 100 percent renewable electricity by 2035
- Net-Zero Carbon Emissions by 2050
- Become a Fossil Fuel Free City

Berkeley Resiliency Strategy

In 2016, the City released is Resilience Strategy to advance the City's resilience, or the ability of the individuals, institutions, businesses, and systems within the community to survive, adapt, and grow

no matter what chronic stress or acute shock it experiences. Berkeley interconnected resilience challenges include earthquakes, wildfires, climate change impacts such as drought and flooding, and racial inequity. The City's Resilience Strategy emphasizing building community resilience by facilitation stronger connections between neighbors; between public, private, nonprofit, and academic institutions; between departments within the City government; and between Bay Area local and regional governments. As a State entity, the District is not required to comply with the City's Resilience Strategy. The six goals of the Resilience Strategy are (City of Berkeley 2016):

1. Build a Connected and Prepared Community
2. Accelerate Access to Reliable and Clean Energy
3. Adapt to the Changing Climate
4. Advance Racial Equity
5. Excel at Working Together within City Government to Better Serve the Community
6. Build Regional Resilience

CITY OF BERKELEY NATURAL GAS PROHIBITION

Berkeley Municipal Code Chapter 12.80 prohibits the use of natural gas infrastructure in all new construction. As a State entity, the District is not required to comply with the City's Municipal Code; however, the proposed project would comply with this requirement.

Berkeley City College Sustainability and Resiliency Strategy

As described in Section 4, *Project Characteristics*, subsection *Green Building Features*, the College maintains a Sustainability and Resiliency Strategy (2018), which assesses the College's GHG emissions inventory and establishes sustainability goals and measures for the College's campus. The Strategies main goals include achieving zero net energy, reducing VMT by 40 percent, reducing potable water use to 242 gallons per person per year, achieving zero waste, reducing food-related emissions by 30 percent, obtain a 90 percent "high quality" rating from campus users, conform 100 percent of purchases to the procurement policy, graduate 10 percent of students with a sustainability-related degree, and implement campus-specific adaptation actions. Most of these goals have a deadline of 2050, with a 2030 deadline for the procurement policy goal.

Methodology

GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2016.3.2, with the assumptions described under Section 3, *Air Quality*, in addition to the following:

- **Utility Energy Intensity Factors.** The project would be served by EBCE via PG&E transmission lines. Because the project would enroll in EBCE's Brilliant 100 plan, 100 percent carbon-free electricity would be provided to the project. The utility energy intensity factors were adjusted to reflect this, result in no CO_2e emissions from electricity in the CalEEMod output files.
- **Energy Reductions.** Non-residential energy usage was reduced by 30 percent to account for the requirements of 2019 Title 24 standards (CEC 2019c). The project would not use natural gas as an energy source; therefore, the natural gas energy intensity inputs into CalEEMod were set to zero, and the emissions associated with electricity that would replace the natural gas energy demand were calculated outside of CalEEMod (refer to Appendix AQ).
- **Nitrous Oxide Emissions from Mobile Sources.** Because CalEEMod does not calculate nitrous oxide emissions from mobile sources, nitrous oxide emissions were quantified using guidance

from the CARB and the Emission Factor (EMFAC) 2017 Emissions Inventory for the BAAQMD region for the year 2030 (the next State milestone target year for GHG emission reductions) using the EMFAC2011 categories (CARB 2018 and 2020b; see Appendix AQ).

- **Service Population.** The project's per person GHG emissions were calculated by dividing total GHG emissions by the project's service population (residents plus employees). The project does not include residential land uses; therefore, the service population attributed to this project is based on projected staff and faculty data. However, because CalEEMod incorporates trips generated by students as well as faculty and staff, students are also included in the service population for the project. As such, the project would be associated with an increase of 200 faculty and staff (employees) and 905 students by 2040. Therefore, the project's service population would be 1,105 persons.

Significance Thresholds

Individual projects do not generate sufficient GHG emissions to influence climate change directly. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

According to CEQA Guidelines Section 15183.5(b), projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (AEP; 2016) in its white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions impact on the environment (2016). CEQA Guidelines Section 15183.5 defines the requirements for a plan to qualify as a comprehensive plan for the reduction of GHG emissions:

1. Quantify existing and projected GHG emissions within the plan area
2. Establish a reduction target based on substantial evidence, where GHG emission are not cumulatively considerable)
3. Identify and analyze sector specific GHG emissions from Plan activities
4. Specify policies and actions (measures) that local jurisdictions will enact and implement over time to achieve the specified reduction target
5. Establish a tool to monitor progress and amend if necessary
6. Adopt in a public process following environmental review

A key aspect of a "qualified" GHG reduction plan's ability to provide "substantial evidence" is that the identified reduction target establishes a threshold at which GHG emissions would not be cumulatively considerable. The AEP Beyond Newhall white paper identifies this criterion as being a local target that aligns with statewide legislative targets. While the College and District do not have adopted CAPs, the City of Berkeley's CAP is discussed herein for informational purposes. The project would not be subject to the City's CAP. The City of Berkeley adopted CAP sets a 2020 year target to achieve a 33 percent absolute reduction below 2000 community-wide emissions and identifies actions to achieve the target with the ultimate goal of 80 percent emissions reductions by 2050 (City

of Berkeley 2009a). The City of Berkeley's CAP is not a qualified GHG reduction strategy because the CAP does not establish a pathway to achieving the City's long-term goal for 2050 or the State's long-term goal of carbon neutrality by 2045. Therefore, the CAP does not qualify as a GHG reduction plan for projects with horizon years beyond 2020 and consistency with the CAP cannot be used as the basis of the CEQA analysis for the proposed project.

Instead, this analysis evaluates the project's estimated GHG emissions against a locally-appropriate, project-specific efficiency threshold derived from the SB 32 target, the City's 2050 goal, and the City's GHG inventory from 2005, which is consistent with current best practices in the industry (AEP 2016). This provides a quantitative assessment of the project's GHG emissions compared to a project-specific threshold. The locally-appropriate, project-specific efficiency threshold used in this analysis was created to comply with the CEQA Guidelines and interpretative GHG case law. An efficiency threshold is calculated by dividing the allowable GHG emissions inventory in a selected calendar year by the service population in that year. This calculation identifies the quantity of emissions that can be generated on a per-service population basis without significantly impacting the environment. This approach is appropriate for the proposed project because it measures the project's emissions on a local per capita basis to determine its overall GHG emissions efficiency relative to regulatory GHG emission reduction goals.

For the proposed project, an efficiency threshold was calculated based on the target GHG emission levels that would be consistent with the State's 2030 target and the City's 2050 goal using the service population of the City of Berkeley in year 2040. This locally-appropriate, project-specific quantitative threshold is derived, in part, from the City's 2005 GHG inventory in line with CARB's recommendations in the 2008 Climate Change Scoping Plan and the 2017 Scoping Plan (CARB 2008, 2017). Consistent with the legal guidance provided in the Golden Door (2018) and Newhall Ranch (2015) decisions, regarding the correlation between state and local conditions, the City's 2005 GHG inventory was used to calculate a locally-appropriate, evidence-based, project-specific threshold consistent with California's SB 32 target and the City's 2050 goal. Accordingly, the threshold established in this Initial Study is a locally-applicable, project-specific threshold, as opposed to a threshold for general use.

The City completed a 2000 GHG inventory that calculated communitywide emissions of 631,863 MT of CO_2e per year and a 2005 GHG inventory that calculated communitywide emissions of 575,889 MT of CO_2e per year (Table 14). Because the proposed project only involves educational uses, the Commercial Energy and a portion of the Transportation sector emissions are appropriate to use in developing a project-specific threshold because future students, teachers, and visitors would consume energy and generate on-road vehicle trips. Therefore, the Residential Energy and a portion of the Transportation sector emissions were conservatively excluded for the emissions total for project-applicable sectors. Because these sector emissions would not be applicable to the proposed project, these emissions were subtracted from the total emissions to calculate a project-applicable emissions total of 322,300 MT of CO_2e for 2000 and 293,173 MT of CO_2e for 2005.

AB 32 set a statewide target of reducing GHG emissions to 1990 levels by 2020. Therefore, for the City of Berkeley to be consistent with AB 32, annual GHG emissions levels from project-applicable sectors would need to be reduced by 15 percent below 2005 levels by 2020 to approximately 249,197 MT of CO_2e per year. In addition, SB 32 set a statewide GHG emission reduction target of 40 percent below 1990 levels. Therefore, annual GHG emissions levels from project-applicable sectors would need to be reduced by 40 percent below 1990 levels to approximately 149,518 MT of CO_2e per year to be consistent with SB 32. Accordingly, the 2030 project-specific efficiency threshold can be calculated by dividing total communitywide GHG emissions by the communitywide service

population for year 2030. The City's 2030 residential population would be approximately 135,680 persons (ABAG 2019). Therefore, the 2030 locally-appropriate, project-specific threshold would be approximately 1.1 MT of CO_2e per year (Table 15).

Table 14 City of Berkeley Baseline Inventories

Source	2000 Total (MT of CO_2e)	2005 Total (MT of CO_2e)
Residential Energy	175,777	152,599
Commercial Energy	183,053	157,746
Transportation	273,033	265,544
Total Emissions	**631,863**	**575,889**
Emissions from Project-Applicable Sectors[1]	322,300	293,173

[1] Includes commercial and 51 percent of transportation emissions. Transportation emissions were allocated proportionally between residential and commercial sectors based on energy consumption emission estimates (183,053 MT / [175,777 MT + 183,053 MT]; 157,746 MT / [152,599 MT + 157,746 MT]).

Source: City of Berkeley 2009a

Table 15 Locally-Applicable Project-Specific Efficiency Threshold

Target Year	Value
2000 Baseline Levels[1]	322,300 MT of CO_2e/year
2005 Baseline Levels[1]	293,173 MT of CO_2e/year
2020 Target (AB 32)[2]	249,197 MT of CO_2e/year
2030 Target (SB 32)[3]	149,518 MT of CO_2e/year
2030 Residential Population[4]	135,680 persons
2030 Project-Specific Efficiency Threshold	**1.1 MT of CO_2e per service person per year**

[1] 2005 emission levels from project-applicable sectors (Table 14)

[2] AB 32 sets a target of reducing GHG emissions to 1990 levels (i.e., 15 percent below 2005 levels) by 2020. The Efficiency Thresholds account for a 15 percent reduction per AB 32 targets.

[3] SB 32 sets a target of reducing GHG emissions 40 percent below 1990 levels by 2030.

[4] Source: ABAG 2019

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Project construction would generate temporary GHG emissions primarily as a result of construction equipment on-site as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building materials and soil export. BAAQMD has not adopted a threshold of significance for construction-related GHG emissions. However, the BAAQMD recommends quantifying and disclosing GHG construction emissions. As shown in Table 16, project construction would generate an estimated total of 572 MT of CO_2e.

Project operation would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, vehicle trips, stationary sources (e.g., emergency generator), and wastewater and solid waste generation. As shown in Table 17, the project's combined annual emissions would total approximately 610 MT of CO_2e per year, or approximately

0.6 MT of CO_2e per service person per year, which would not exceed the locally-applicable, project-specific threshold of 1.1 MT of CO_2e per year. Therefore, impacts would be less than significant.

Table 16 Estimated Construction GHG Emissions

Year	Emissions (MT of CO_2e)
2022	70
2023	207
2024	228
2025	67
Total	**572**

MT = metric tons; CO_2e = carbon dioxide equivalent

Notes: Emissions modeling was completed using CalEEMod.

Source: Appendix AQ

Table 17 Combined Annual GHG Emissions

Emission Source	Annual Emissions (MT of CO_2e per year)
Operational	
Area	<1
Energy	0
Solid Waste	39
Water	3
Stationary	7
Mobile	
CO_2 and CH_4	548
N_2O	13
Total Emissions	**610**
Service Population[1]	1,105
Emissions per Service Person	**0.6**
Threshold	1.1
Threshold Exceeded?	**No**

[1] Service population for this project includes students, faculty, and staff. This is appropriate for the project, as CalEEMod incorporates trips generated by students as well as employees (faculty and staff).

Notes: Emissions modeling was completed using CalEEMod, except for N_2O mobile emissions. N_2O mobile emissions completed consistent with the description in *Methodology*.

Source: Appendix AQ

LESS THAN SIGNIFICANT IMPACT

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

Several plans and policies have been adopted to reduce GHG emissions in the project region, including the State's 2017 Scoping Plan, the City's CAP, and the College's Sustainability and Resiliency Strategy. The proposed project's consistency with these plans is discussed in the following subsections. As discussed therein, the proposed project would not conflict with plans and policies aimed at reducing GHG emissions. Impacts would be less than significant.

2017 Scoping Plan

The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020 and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the state to achieve the reductions. The 2017 Scoping Plan's strategies that are applicable to the proposed project include using low-carbon energy, reducing VMT and transportation energy use, reducing solid waste generation and increasing recycling and composting efforts, and increasing water use efficiency. The project would be consistent with these goals through project design, which includes installing solar panels, obtaining 100 percent carbon-free electricity from EBCE, complying with the City's electrification ordinance, incentivizing alternative modes of transportation, providing recycling services, and installing low-flow fixtures. Therefore, the project would be consistent with the 2017 Scoping Plan.

City of Berkeley CAP

The City's CAP contains recommended goals intended to reduce GHG emissions in the City consistent with the City's GHG reduction targets. While the project would not be subject to the City's CAP, the project's consistency with the City's CAP is discussed for informational purposes in Table 18. As summarized therein, the project would be consistent with measures of the City's CAP. The project's consistency with CAP goals related to energy use and energy efficiency are addressed in Section 6, *Energy*.

Table 18 Plan Consistency for GHG Emissions

Goals and Policies	Project Consistency
2. Goal: Increase and enhance urban green and open space, including local food production, to improve the health and quality of life for residents, protect biodiversity, conserve natural resources, and foster walking and cycling **b. Policy:** Promote tree planting, landscaping, and the creation of green and open space that is safe and attractive and that helps to restore natural processes	**Consistent.** The project site currently contains no green space, except City-maintained street trees in the public rights-of-way. The project would install a rooftop garden, which would increase the green space available at the site. The project would also provide bicycle parking on the first floor of the proposed structure, which would encourage bicycling to the project site.
3. Goal: Increase recycling of construction & demolition (C&D) debris	**Consistent.** The project would ensure construction and demolition debris is recycled to the extent feasible, per Measure SW-9 of the College's Sustainability and Resiliency Strategy.
7. Goal: Increase recycling, composting, and waste reduction in public institutions	**Consistent.** The project would provide dedicated recycling receptacles on the project site and zero waste stations, per Measures SW-2 and SW-11 of the College's Sustainability and Resiliency Strategy.

Source: City of Berkeley 2009a

Berkeley City College Sustainability and Resiliency Strategy

Berkeley City College maintains a Sustainability and Resiliency Strategy, which includes various policies and measures related to the District's sustainability goals. As described in Section 4, *Project Characteristics*, subsection *Green Building Features*, the project would implement sustainability measures consistent with the Berkeley City College Sustainability and Resiliency Strategy, including measures E-1, E-2, E-3, E-4, E-5, TR-2, TR-3, TR-4, TR-8, TR-10, TR-11, WR-2, SW-2, SW-5, SW-9, and SW-11, as described in Section 4, *Project Characteristics*, subsection *Green Building Features,* which would reduce the project's electricity demand, transportation energy demand, water demand, and solid waste generation.

LESS THAN SIGNIFICANT IMPACT

9 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 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material 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 in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	■	☐

A Phase I Environmental Site Assessment (ESA) was prepared for the project site by Terraphase Engineering Inc. in January 2015, included in Appendix HAZ to this Initial Study. As part of the Phase I ESA, Environmental Data Resources, Inc. (EDR) was contracted to provide a database search of public lists of sites that generate, store, treat, or dispose of hazardous materials or sites for which a release or incident has occurred for the project site and surrounding area. Federal, state, and county lists were reviewed as part of the research effort.

Four up-gradient, nearby properties were listed in the databases searched by EDR:

- **2011 Addison Street** is 294 feet north-northeast of the project site. The property is listed in the Historic Cortese and Leaking Underground Storage Tank (LUST) databases. This site was granted regulatory closure in 1999, and this property would not pose a significant risk to the project site.
- **2040 Addison Street** is 434 feet northeast of the project site. This property is listed on the Historic Cortese and LUST databases. This site is listed as "Completed – Case Closed;" however, given the site's location in proximity to the project site, a potential soils vapor encroachment issue could occur at the project site.
- **2020 Addison Street** is 523 feet east-northeast of the project site. This listing is identified on the Resource Conservation and Recovery Act (RCRA) small quantity generators, Facility Index System, Historic Cortese, LUST, and HAZNET databases. While the site was granted regulatory closure in 1994, its proximity may cause a potential soils vapor encroachment issue at the project site.
- **2000 Milvia Street** is 573 feet north of the project site. This property is listed on the Historic Cortese and LUST databases. This site is listed as "Completed – Case Closed" and given the distance from the project site, this listing would not pose a significant risk to the site.

Based on the EDR report and a review of available documents, the project site is listed as a prior gas station, under the address 1999 Center Street. Additionally, the following five nearby sites are also listed on EDR's historic auto and historic cleaners databases: 2135 Milvia Street (0.01 mile east), 2125 Milvia Street (0.02 mile north-northeast), 2000 Center Street (0.02 mile southeast), 2145 Milvia Street (0.02 mile southeast), and 2020 Milvia Street (0.01 mile northeast).

The Phase I ESA determines the potential for recognized environmental conditions (REC) to be associated with the project site. A REC is the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or the material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The following RECs were identified for the project site:

- A gasoline station was formerly located on the property. Because of the age of the gasoline station and the date of its closure (1966), prior to the enactment of the RCRA, the gasoline station would not have been closed under regulatory oversight and it is likely that petroleum products were released into the subsurface at the site.
- There were also gasoline stations on the northeast and southeast corners of the intersection of Center Street and Milvia Street which are upgradient of the site. Because of the age of the gasoline stations and the dates of their closure, prior to the enactment of RCRA, it is likely that petroleum products were released into the subsurface at their locations. Groundwater is fairly shallow at the site, and hence, if petroleum products were released at the adjacent former

gasoline stations, it is likely that the petroleum products would have migrated under the site, creating a potential vapor encroachment condition.

- A property, located at 2020 Addison Street, approximately 400 feet northwest of the site, reported a release of gasoline that impacted both soil and groundwater. Because of this property's proximity and up-gradient location with respect to groundwater flow, to the site and the possibility that contaminated groundwater from this property may have migrated beneath the site, a potential vapor encroachment issue cannot be ruled out.

In March 2015, Terraphase Engineering Inc. conducted a Soil Gas Survey at 2118 Milvia Street to follow up on the potential soils vapor issues identified above. This study collected and analyzed soil gas samples at the site and, while traces of some chemicals and substances were detected, none were above established health risk levels. Soil was analyzed for volatile organic compounds (VOC) and helium. VOCs include para xylene, benzene, ethanol, and acetone, which were detected in soil gas samples. Ethanol and acetone were determined to be laboratory contaminants. Benzene and para xylene are indicative of a release of petroleum hydrocarbons in the vicinity of the site, but due to the amounts detected, not associated with a petroleum release at the site. The highest concentration of benzene was detected at 33 percent of the California Human Health Screening Level for residential exposure. Chlorinated VOCs, such as perchloroethylene (PCE) and trichloroethylene (TCE), were not detected. The concentration of detected helium was less than 5 percent of the level considered to be a significant risk. Oxygen levels were detected at 20 percent, indicating that the atmosphere is not oxygen deficient and significant biodegradation was not occurring in site soils. The study concluded that a significant threat to building occupants is unlikely.

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

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

Construction

Project construction may include the temporary transport, storage, and use of potentially hazardous materials including fuels, lubricating fluids, cleaners, or solvents. Demolition of the existing building could result in upset and release of hazardous materials into the environment.

Demolition and construction activities may include the temporary transport, storage, use, or disposal of potentially hazardous materials including fuels, lubricating fluids, cleaners, solvents, or contaminated soils. If spilled, these substances could pose a risk to the environment and to human health. However, the transport, storage, use, or disposal of hazardous materials is subject to various federal, state, and local regulations designed to reduce risks associated with hazardous materials, including potential risks associated with upset or accident conditions. Hazardous materials would be required to be transported under U.S. Department of Transportation regulations (U.S. Department of Transportation Hazardous Materials Transport Act, 49 Code of Federal Regulations), which stipulate the types of containers, labeling, and other restrictions to be used in the movement of such material on interstate highways. In addition, the use, storage, and disposal of hazardous materials are regulated through RCRA. The California Department of Toxic Substances Control (DTSC) is responsible for implementing the RCRA program, as well as California's own hazardous waste laws. DTSC regulates hazardous waste, cleans up existing contamination, and looks for ways

to control and reduce the hazardous waste produced in California. It does this primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (CCR Title 22, Divisions 4 and 4.5). DTSC also oversees permitting, inspection, compliance, and corrective action programs to ensure that hazardous waste managers follow federal and State requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Compliance with existing regulations would reduce the risk of potential release of hazardous materials during construction.

The existing structure was constructed in 1966, and due to its age, may contain asbestos, Polychlorinated biphenyls (PCB), and/or lead-based paint. Demolition could result in health hazard impacts to workers if not remediated prior to construction activities. Demolition of the structure could result in health hazard impacts to workers if not remediated prior to construction activities. However, demolition and construction activities would be required to adhere to BAAQMD Regulation 11, Rule 2, which governs the proper handling and disposal of asbestos containing material for demolition, renovation, and manufacturing activities in the Bay Area, and California Occupational Safety and Health Administration (CalOSHA) regulations regarding lead-based materials. CCR Section 1532.1 requires testing, monitoring, containment, and disposal of lead-based materials, such that exposure levels do not exceed CalOSHA standards. DTSC has classified PCBs as a hazardous waste when concentrations exceed 50 parts per million in non-liquids, and the DTSC requires that materials containing those concentrations of PCBs be transported and disposed of as hazardous waste. Light ballasts to be removed would be evaluated for the presence of PCBs and managed appropriately. With required adherence to BAAQMD, CalOSHA, and DTSC regulations regarding asbestos containing material, lead-based paint, and PCBs impacts would be less than significant.

Furthermore, project construction would require heavy construction equipment, the operation of which could result in a spill or accidental release of hazardous materials, including fuel, engine oil, engine coolant, and lubricants. The transport of any hazardous materials would be subject to federal, state, and local regulations, which would minimize risk associated with the transport hazardous materials. Construction activities that involve hazardous materials would be required to transport such materials along roadways designated for that purpose in the County and greater Bay Area, thereby limiting risk of upset during transportation.

The disturbance of project site soils during construction is not anticipated to result in a release of hazardous soil vapors, as soil vapor sampling on the site did not detect VOCs or helium above human health screening levels.

Operation

Project operation could involve the use of various hazardous materials, including chemical reagents, solvents, fuels, paints, and cleansers. These materials would be used for building maintenance and would be stored on site. Many of the hazardous materials used would be considered household hazardous wastes, common wastes, or universal wastes by the USEPA, which regards these types of wastes to be common to businesses and households and to pose a lower risk to people and the environment than other hazardous wastes when they are properly stored, transported, used, and disposed of. Adherence to federal, state, and local laws for the proper use, disposal, and transport of operational hazardous materials would reduce impacts associated with hazardous materials to a less than significant level.

Project operation could involve the use of hazardous materials in the form of routine cleaning products. These materials would not be substantially different from commercial and industrial chemicals already in general and wide use throughout the region and project area. As with any institutional activities that involve the storage and use of hazardous materials, on-site activity involving hazardous substances (such as the cleaning products as described above), and the transport, storage, handling of these substances, must adhere to applicable local, state, and federal safety standards, ordinances, or regulations. CalOSHA is responsible for developing and enforcing workplace safety regulations. Both federal and state laws include special provisions/training in safe methods for handling any type of hazardous substance. These regulations ensure that potential hazards associated with operational activities do not create a significant hazard to the public. Future uses would be required to store hazardous materials in designated areas designed to prevent accidental release into the environment. Potentially hazardous waste produced during operation would also be collected, stored and disposed of in accordance with applicable laws and regulations.

Compliance with existing laws and regulations governing the transport, use, release, and storage of hazardous materials would reduce impacts related to exposure of the public or environment to hazardous materials to less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is within 0.25 miles of Berkeley High School, located 420 feet south of the site. As outlined above under criteria (*a*) and (*b*) above, demolition of the existing structure would require removal and movement of materials containing asbestos and lead-based paint, and excavation and construction activities could involve removal and movement of contaminated soils. Hauling of such materials may occur within 0.25 mile of school facilities. However, given required compliance with the rules and regulations described above criteria (*a*) and (*b*) above, impacts to schools would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

Per Government Code Section 65962.5, the following lists were searched for the project site address:

- Hazardous Waste and Substances site "Cortese" list (65962.5[a])
- GeoTracker: List of LUST Sites (65962.5[c][1])
- List of solid waste disposal sites identified by the Water Board (65962.5[c][2])
- List of "active" Cease and Desist Order and Cleanup Abatement Order sites (65962.5[c][3])

The project site is not listed on any of these databases, which were compiled pursuant to Government Code 65962.5 (California Environmental Protection Agency 2020a, 2020b; DTSC 2020; State Water Resources Control Board [SWRCB] 2020).

Additionally, per the Soil Gas Survey (Appendix ESA), development on the project site would not expose individuals to hazardous soil gas vapors, as soil gas sampling did not detect VOCs or helium above human health screening levels. The study concluded that a significant threat to building

occupants is unlikely. Therefore, the project would not create a hazard to the public or the environment, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The Oakland International Airport is the closest airport to the project site, approximately 11.2 miles south of the site. There are no private airstrips in the vicinity. The project site is located entirely outside the airport safety and traffic pattern zones (County of Alameda 2010). Therefore, no impact related to airport safety would occur.

NO IMPACT

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

Project construction is expected to require the use of adjacent on-street parking spaces and closure of adjacent pedestrian sidewalks to provide adequate space and maneuvering for construction vehicles and equipment. It is not anticipated that lane closures along Milvia Street or Center Street would be required, as the temporary closure of on-street parking spaces and potential temporary realignment of driving lanes if additional space for construction equipment is determined necessary. Temporary lane realignment would keep both travel lanes open and would not interfere with the use emergency evacuation routes or require vehicle detours.

The proposed structure would be located on private property and would not obstruct existing roadways or require the construction of new roadways or access points. Therefore, the proposed structure would not block emergency response or evacuation routes. In addition, local requirements and review procedures would ensure that project would not interfere with emergency response or evacuation. The project would therefore not result in structures that would block emergency response or evacuation routes or interfere with adopted emergency response and emergency evacuation plans. No impact would occur.

NO IMPACT

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

As described below in Section 20, *Wildfire*, while the project site is in a highly developed urban area and is not within a wildland fire hazard area, it is located approximately 0.8 mile west of a very high fire hazard severity zone (California Department of Forestry and Fire Protection 2008). The project would be constructed in compliance with building code fire safety requirements, which would ensure that the project would not expose people or structures to a significant loss, injury or death involving wildland fires. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

10 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 ground water 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 seiche zones, risk release of pollutants due to project inundation?	☐	☐	■	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	■	☐

The project site within the Cerrito Creek-Frontal San Francisco Bay Estuaries Watershed, which drains to the San Francisco Bay. The Watershed is the largest watershed in the City and includes the project site and surrounding areas. The watershed begins in the hills at the east limit and directs flows to the west through natural open channels, and through manmade storm drains.

Water supply for the City of Berkeley is provided by EBMUD. Most of the water delivered by EBMUD originates from the Mokelumne River watershed, and the remaining water originates as runoff from the protected watershed lands and reservoirs in the East Bay Hills. Supplemental groundwater projects would allow EBMUD to be flexible in response to changing external conditions, such as single-year or multiple-year droughts. For example, the Bayside Groundwater Project will allow EBMUD to bank water during wet years for extraction, treatment, and use during dry years. Project construction was completed in 2010, but subsequent dry conditions and the need to obtain the necessary approvals have prevented EBMUD from injecting water into the project (EBMUD 2016).

Regulatory Setting

Federal Clean Water Act

In 1972, Congress passed the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), with the goal of "restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation's waters" (33 United States Code Section 1251[a]). The CWA directs states to establish water quality standards for all "waters of the United States" and to review and update such standards on a triennial basis. Section 319 mandates specific actions for the control of pollution from non-point sources. The USEPA has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) Program, to the SWRCB and the Regional Water Quality Control Boards (RWQCB).

Section 303(c)(2)(b) of the CWA requires states to adopt water quality standards for all surface waters of the United States based on the water body's designated beneficial use. Water quality standards applicable to the proposed project are contained in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan).

National Pollutant Discharge Elimination System

The project site lies within the jurisdiction of San Francisco Bay RWQCB (Region 2) and is subject to the waste discharge requirements of the Municipal Regional Stormwater Permit (MRP) (Order No. R2-2015-0049) and NPDES Permit No. CAS612008, which was issued on November 19, 2015 and went into effect on January 1, 2016. A new version of the MRP is currently in negotiation between the Regional Water Board and the Clean Water Program. The new MRP will likely go into effect in mid-2021.

Under Provision C.3 of the MRP, the District is required to use its planning authority to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address stormwater runoff pollutant discharges and address increases in runoff flows from new development and redevelopment projects. These requirements are generally reached through the implementation of Low Impact Development (LID) techniques. Some requirements (i.e., demolitions and special use rules) may become more stringent with implementation of the new version of the MRP expected in 2021.

The NPDES permit requires appropriate LID and Stormwater Treatment technologies in new development and redevelopment projects, in order to mimic the natural hydrology of the lands prior to disturbance. The objective of LID and post-construction BMPs for stormwater is to reduce runoff and mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source. LID employs principles such as preserving and recreating natural landscape features and minimizing imperviousness to create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain gardens, bioretention units, bioswales, and planter/tree boxes.

State Updated Model Water Efficient Landscape Ordinance (AB 1881)

The updated Model Water Efficient Landscape Ordinance (WELO) required agencies to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated WELO. In May of 2015, the governor issued Executive Order B-29-15 requiring the state to revise the model WELO to increase water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, onsite stormwater capture, and by limiting the portion of landscapes that can be covered in turf.

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

Construction

Project construction could cause soil erosion from exposed soil, an accidental release of hazardous materials used for equipment such as vehicle fuels and lubricant, or temporary siltation from storm water runoff. Soil disturbance would occur during demolition and site preparation. Because the proposed project would disturb less than one acre, the project would not be subject to the National Pollutant Discharge Elimination System Construction General Permit. However, as discussed in Section 7, *Geology and Soils*, implementation of Mitigation Measure GEO-2 would reduce erosion-related impacts to water quality. This measure requires the preparation of an erosion control plan, which would ensure the implementation of BMPs during project construction to reduce potential erosion. With this mitigation, water quality impacts would be reduced to less than significant levels.

Operation

The District is responsible for enforcing the requirements of the MRP. Compliance with the MRP includes both operational and maintenance BMPs and construction related BMPs. Provisions specified in MRP that affect construction projects generally include but are not limited to Provision C.3 (New Development and Redevelopment), Provision C.6 (Construction Site Control), and Provision C.15 (Exempted and Conditionally Exempted Discharges). The project would be required to comply with these provisions, which are described in further detail below:

- **Provision C.3** requires that LID techniques be utilized to employ appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects; to address stormwater runoff pollutant discharges; and to prevent increases in runoff flows from new development and redevelopment projects by mimicking a site's predevelopment

hydrology. This is to be accomplished by employing principles such as minimizing disturbed areas and imperviousness, and preserving and recreating natural landscape features, in order to "create functional and appealing site drainage that treats stormwater as a resource, rather than a waste product" (San Francisco Bay RWQCB 2015). These LID practices, as well as other provisions and BMPs specified in the MRP, may require long-term operational inspections and maintenance activities to ensure the effective avoidance of significant adverse impacts associated with water quality degradation.

- **Provision C.6** requires implementation of a construction site inspection and control program at all construction sites and an Enforcement Response Plan to prevent construction-related discharges of pollutants into storm drains. Inspections confirm implementation of appropriate and effective erosion and other BMPs by construction site operators/developers, and Permittee reporting is used to confirm and demonstrate the effectiveness of its inspections and enforcement activities to prevent polluted construction site discharges into storm drains.
- **Provision C.15** exempts specified unpolluted non-stormwater discharges and to conditionally exempt non-stormwater discharges that are potential sources of pollutants. In order for non-stormwater discharges to be conditionally exempted, the Permittees must identify appropriate BMPs, monitor the non-stormwater discharges where necessary, and ensure implementation of effective control measures to eliminate adverse impacts to waters of the state consistent with the discharge prohibitions of the Order.

Compliance with the applicable state and local requirements described above would ensure that project operation would increase infiltration of stormwater, decrease stormwater runoff, and reduce the risk of water contamination to the maximum extent practicable. The project would result in no net change in on-site impermeable surfaces from existing conditions, but would incorporate a rooftop landscaped area, which would capture and use some stormwater runoff that would normally be discharged off site. Therefore, project operation would not violate water quality standards or waste discharge requirements or substantially degrade water quality. Impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The proposed project would not use or deplete groundwater resources. Water supply for the project site is provided by EBMUD. The groundwater aquifer beneath Berkeley is not currently used for water storage or drinking water supply. Therefore, the project would not involve installation of new groundwater wells or use of groundwater from existing wells.

The project site is in a fully urbanized area, and project implementation would redevelop the site with a similar amount of impervious areas as existing conditions. Because the project would result in no net change to impervious surface area within the project site, it would not increase the amount of surface runoff at the site. Therefore, the proposed project would not result in a net deficit in aquifer volume or a lowering of the groundwater table. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would 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?

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The area surrounding the project site is urbanized and largely consists of impervious surfaces, including structures, parking lots, and roadways. Stormwater runoff generated by the proposed project would be collected by drainage inlets and conduits and conveyed to the San Francisco Bay, as under current conditions. A culverted portion of Strawberry Creek travels beneath Center Street and beneath a portion of the Civic Center Building south of the project site. The culverted creek does not flow through the project site itself, and project construction would not alter the course of this culverted creek or any other streams or rivers.

The proposed project would not modify the on-site drainage pattern, as runoff would continue to flow to existing stormwater drains. The project site is entirely covered by impervious surfaces, and the proposed project would maintain the total area of impervious surfaces, as the existing structure would be demolished and replaced with the proposed structure. Therefore, the project would not introduce new impermeable areas such that the rate or amount of surface runoff would increase in a manner which would result in substantial erosion or siltation or flooding on or off the project site.

Given the information described above, the proposed project would not substantially alter the existing drainage pattern of the site or area or alter the course of any stream or river, would not result in erosion or siltation, and would not substantially increase the rate of surface runoff in a manner which would result in flooding on- or off-site or exceed capacity of a stormwater system. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is located approximately 1.7 miles from the San Francisco Bay and approximately 15 miles from the coast of the Pacific Ocean. The site is not located within a Federal Emergency Management Agency (FEMA) designated flood hazard area (FEMA 2020). The site is also not located in a dam or tsunami inundation area and is not located near a large water body or in proximity to the San Francisco Bay such that a seiche could affect the proposed project (City of Berkeley 2003). Therefore, the project would not result in the placement of structures within FEMA-designated flood hazard areas, would not impede or redirect flood flows, would not expose people or structures to significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam, and would not result in inundation by seiche, tsunami, or mudflow. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Berkeley is under the jurisdiction of the San Francisco Bay RWQCB, which prepared the Basin Plan, designating beneficial uses of water in the region and establishing narrative and numerical water quality objectives. As discussed under criteria (*a*) and (*b*) above, the project would not use groundwater, violate water quality standards, or degrade water quality during construction or operation. Therefore, the proposed project would not interfere with the objectives and goals in the Basin Plan. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

11 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. Would the project physically divide an established community?

The proposed project would involve demolition of an existing structure and construction of a new structure in its place. The project would not separate connected neighborhoods or land uses from each other. No new roads, linear infrastructure, or other development features are proposed that would divide an established community or limit movement, travel, or social interaction between established land uses. No impact would occur.

NO IMPACT

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

This section describes the project's consistency with Berkeley City College's Facilities Master Plan and Sustainability and Resiliency Strategy. District properties are extensions of State land and are not subject to local land use regulatory controls. Therefore, the project's consistency with the City of Berkeley's DAP is provided for informational purposes.

Berkeley City College Facilities Master Plan

The College's Facilities Master Plan identifies anticipated student enrollment growth and the associated square footage requirements to accommodate growth through 2022. The Plan identifies a net need for 191,000 square feet of space by 2022. While enrollment growth has not precisely followed that anticipated in the Facilities Master Plan, the proposed project would provide additional educational facilities and classroom space that would address a portion of this identified need. Consistent with the Master Plan, the project provides a new art studio and new laboratory spaces. The Plan also identifies the College's values, which include a commitment to multiculturalism and diversity. The project includes a multicultural resource center and undocumented community resource center, which directly aligns with this value. Therefore, the proposed project would not conflict with the College's Facilities Master Plan. There would be no impacts.

Berkeley City College Sustainability and Resiliency Strategy

As described in Section 4, *Project Characteristics*, subsection *Green Building Features*, and Section 6, *Energy*, the project would implement sustainability measures consistent with the Berkeley City College Sustainability and Resiliency Strategy, including measures E-1, E-2, E-3, E-4, E-5, TR-2, TR-3, TR-4, TR-8, TR-10, TR-11, WR-2, SW-2, SW-5, SW-9, and SW-11, as described in Section 4, *Project Characteristics*, subsection *Green Building Features,* which would reduce the project's electricity demand, transportation energy demand, water demand, and solid waste generation. There would be no impacts.

City of Berkeley Downtown Area Plan

The City's DAP includes goals related to environmental sustainability, land use, and access. As described in Section 4, *Project Characteristics*, subsection *Green Building Features*, the project incorporates a number of sustainable building features, including the installation of rooftop solar panels and compliance with the College's Sustainability and Resiliency Strategy. DAP Goal ED-1 encourages educational uses in Downtown, which is consistent with the project. The project includes the provision of on-site bicycle parking on the first floor, which is consistent with DAP access goals. There would be no impacts.

NO IMPACT

12 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. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

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

The project site is within an urbanized area with no current oil or gas extraction. According to the Environmental Management Element of the City's General Plan, Berkeley does not contain mineral deposits of regional significance (City of Berkeley 2003). Therefore, no mineral resource activities would be altered or displaced by the proposed project and there would be no impact.

NO IMPACT

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13 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 groundborne vibration or groundborne noise levels?	☐	■	☐	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs (e.g., the human ear). Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (Crocker 2007).

The unit of measurement used to describe a noise level is the decibel (dB). However, the human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called "A-weighting" is used to filter noise frequencies that are not audible to the human ear. A-weighting approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the "A-weighted" levels of those sounds. Therefore, the A-weighted noise scale is used for measurements and standards involving the human perception of noise. In this analysis, all noise levels are A-weighted, and the abbreviation "dBA" identifies the A-weighted decibel.

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A 10 dB increase represents a 10-fold increase in sound intensity, a 20 dB increase is a 100-fold intensity increase, a 30 dB increase is a 1,000-fold intensity increase, etc. Similarly, a doubling of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the noise source would result in a 3 dB decrease.

Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dBA or in terms of acoustical energy. Two equivalent noise sources combined do not sound twice as loud as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA (increase or decrease); that a change of 5 dBA is readily perceptible; and that an increase or decrease of 10 dBA sounds twice (half) as loud (Caltrans 2013).

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this analysis are the one-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL).

The L_{eq} is the level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound. For example, $L_{eq(1h)}$ is the equivalent noise level over a 1-hour period, and $L_{eq(8h)}$ is the equivalent noise level over an 8-hour period. $L_{eq(1h)}$ is a common metric for limiting nuisance noise, whereas $L_{eq(8h)}$ is a common metric for evaluating construction noise.

The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional +5 dBA penalty to noise occurring during evening hours (i.e., 7:00 p.m. to 10:00 p.m.) and an additional +10 dBA penalty to noise occurring during nighttime hours (i.e., 10:00 p.m. to 7:00 a.m.). These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

There is no precise way to convert a peak hour L_{eq} to CNEL – the relationship between the peak hour L_{eq} value and the CNEL value depends on the distribution of traffic volumes during the day, evening, and night. However, in urban areas near heavy traffic, the peak hour L_{eq} is typically 2 to 4 dBA lower than the CNEL. In less heavily developed areas, such as suburban areas, the peak hour L_{eq} is often roughly equal to the CNEL. For rural areas with little nighttime traffic, the peak hour L_{eq} will often be 3 to 4 dBA greater than the CNEL value (SWRCB 1999). The project site is located in an urban area; therefore, the CNEL in the area would be approximately 2 to 4 dBA higher than the peak hour L_{eq}.

Propagation

Sound from a small, localized source (approximating a “point” source) decreases or drops off at a rate of 6 dBA for each doubling of distance. Traffic noise is not a single, stationary point source of sound. Over a time interval, the movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point. The drop-off rate for a line source is 3 dBA for each doubling of distance.

Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of hertz (Hz). The frequency of a vibrating object describes how rapidly it oscillates. The normal frequency range of most groundborne vibration that can be felt by the human body is from a low of less than 1 Hz up to a high of about 200 Hz (Crocker 2007).

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise may result in adverse effects, such as building damage, when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz). Vibration may also damage infrastructure when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (Federal Transit Administration [FTA] 2018). Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Descriptors

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root-mean-square vibration (RMS) vibration velocity. Particle velocity is the velocity at which the ground moves. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the greatest magnitude of particle velocity associated with a vibration event. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings (Caltrans 2020a).

Vibration limits used in this analysis to determine a potential impact to local land uses from construction activities, such as blasting, pile-driving, vibratory compaction, demolition, drilling, and excavation, are based on information contained in Caltrans' *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020a). Maximum recommended vibration limits are identified in Table 19.

Table 19 Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec) – Transient Sources	Maximum PPV (in/sec) – Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
Source: Caltrans 2020a, Table 19

Based on Caltrans recommendations, limiting vibration levels to below 0.25 in/sec PPV at nearby structures would prevent structural damage regardless of building construction type. However, should any adjacent buildings be considered fragile, vibration levels should be limited to below 0.1 in/sec PPV.

Potential human annoyance associated with vibration is shown in Table 20 and Table 21, depending on if it's a steady state or transient vibration source . As shown in Table 20, the vibration level threshold at which steady vibration sources are considered to be distinctly perceptible is 0.035 in/sec PPV. However, as shown in Table 21, the vibration level threshold at which transient vibration sources (such as construction equipment passbys) are considered to be distinctly perceptible is 0.24 in/sec PPV. This analysis uses the distinctly perceptible threshold for purposes of assessing vibration impacts.

Table 20 Human Response to Steady State Vibration

in/sec PPV	Human Response
3.6 (at 2 Hz)–0.4 (at 20 Hz)	Very disturbing
0.7 (at 2 Hz)–0.17 (at 20 Hz)	Disturbing
0.10	Strongly perceptible
0.035	Distinctly perceptible
0.012	Slightly perceptible

Source: Caltrans 2020a

Table 21 Human Response to Transient Vibration

in/sec PPV	Human Response
2.0	Severe
0.9	Strongly perceptible
0.24	Distinctly perceptible
0.035	Barely perceptible

Source: Caltrans 2020a

Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never substantially perceptible to people who are outdoors and the vibration level threshold for human perception is assessed at occupied structures (FTA 2018). Therefore, vibration impacts are assessed at the structure of an affected property.

Regulatory Setting

Berkeley Municipal Code

While the project would not be subject to the Berkeley Municipal Code, noise at surrounding land uses from the project site is subject to the Code requirements. Section 13.40, Community Noise, of the Berkeley Municipal Code sets the City's standards for on-site operational noise and construction noise. As shown in Table 22, Section 13.40.050, Exterior Noise Standards, provides the exterior noise limits not to be exceeded for more than 30 minutes in any hour in various zoning districts. If the measured ambient noise level exceeds these limits, the allowable noise exposure standard would be the ambient noise level.

Table 22 City of Berkeley Exterior Noise Limits

Zone	Time Period	L_{50}[1] Noise Level, dBA
R-1, R-2, R-1A, R-2A, ESR	7:00 AM – 10:00 PM	55
	10:00 PM – 7:00 AM	45
R-3 and Above	7:00 AM – 10:00 PM	60
	10:00 PM – 7:00 AM	55
Commercial	7:00 AM – 10:00 PM	65
	10:00 PM – 7:00 AM	60
Industry	Anytime	70

[1] L_{50} is the noise level that cannot be exceeded for more than 30 minutes in any hour.

Source: Berkeley Municipal Code Section 13.40.050

Berkeley Municipal Code Section 13.40.060, Interior Noise Standards, sets interior noise limits for all zoning districts. Between 7:00 a.m. and 10:00 p.m. interior noise is restricted to 45 dBA L_{eq} and between 10:00 p.m. and 7:00 a.m. interior noise is restricted to 40 dBA L_{eq}.

Berkeley Municipal Code Section 13.40.070 sets standards for construction noise. This section prohibits construction activity between the hours of 7:00 PM to 7:00 AM on weekdays, 8:00 PM to 9:00 AM on weekends and holidays such that the resulting noise creates a noise disturbance across a residential or commercial property line. Table 23 lists the City's maximum sound levels for mobile and stationary equipment that apply to construction activity "where technically and economically feasible" during permitted hours of construction (Berkeley Municipal Code Section 13.40.070.B).

Table 23 Construction Noise Standards

Equipment Type	Day/Times	Residential (R-1, R-2)	Multi-Family Residential (R-3, R-4)	Commercial/ Industrial
Mobile[1]	Weekdays 7:00 AM to 7:00 PM	75 dBA	80 dBA	85 dBA
	Weekends and Holidays 9:00 AM to 8:00 PM	60 dBA	65 dBA	70 dBA
Stationary[2]	Weekdays 7:00 AM to 7:00 PM	60 dBA	65 dBA	70 dBA
	Weekends and Holidays 9:00 AM to 8:00 PM	50 dBA	55 dBA	60 dBA

[1] Berkeley Municipal Code Section 13.40.070 defines mobile equipment as "nonscheduled, intermittent, short-term operation (less than 10 days)."

[2] Berkeley Municipal Code Section 13.40.070 defines stationary equipment as "repetitively scheduled" and for "relatively long term operation (period of 10 days or more)."

Source: Berkeley Municipal Code Section 13.40.070

Existing Noise Setting

The most common source of noise in the project vicinity is vehicular traffic (e.g., automobiles, buses, and trucks) on Milvia Street and Center Street adjacent to the project site. Ambient noise levels are generally highest during the daytime and rush hour unless congestion substantially slows speeds.

Motor vehicle noise is characterized by a high number of individual events, which creates sustained noise levels. According to the City of Berkeley's noise contour map, the ambient noise at the project site is approximately 70 dBA Day-Night Level (City of Berkeley 2003).

Sensitive Receivers

Noise exposure standards for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Noise sensitive receivers include residences, childcare centers, hospitals, and nursing homes (City of Berkeley 2003). Noise-sensitive receivers nearest to the project site are multi-family residences located 185 feet to the northeast and Martin Luther King. Jr. Civic Center Park located as close as 125 feet to the south (from the center of the project site). The park is zoned R-3 and therefore multi-family residential noise standards would apply. Additional residential receivers (such as Berkeley Central Apartments at 2055 Center Street), schools (such as Berkeley High School), and child care centers and related uses (such as Habitot Children's Museum and the Downtown Berkeley YMCA Child Care) are located at greater distances from the project site than the receivers used for the purposes of this analysis and thus impacts at those locations would be less than for those studied in this Initial Study. Additionally, the municipal building immediately west of the project site is considered to be a historic structure (see Section 5, *Cultural Resources*).

Methodology

Construction Noise

Construction noise was estimated using the Federal Highway Administration Roadway Construction Noise Model (RCNM) (FTA 2018). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction noise levels were estimated at noise sensitive receivers near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation of 6 dBA per doubling of distance for stationary equipment.

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the L_{eq} of the operation (FTA 2018). Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some would have higher continuous noise levels than others, and some have high-impact noise levels. In typical construction projects, grading activities generate the highest noise levels because grading involves the largest equipment and covers the greatest area.

Project construction is expected to occur over 30 months. Construction phases would include demolition, site preparation, grading, building construction, architectural coating, and paving of the project site. It is assumed that diesel engines would power all construction equipment. For general construction activities, the loudest construction activities typically occur during earthmoving activities for grading. Due to the small size of the site, it is not likely that more than one or two pieces of equipment could be in use simultaneously. Therefore, noise levels are based on a potential construction scenario of one concrete saw and one bulldozer operating simultaneously during the grading phase. At a distance of 125 feet, one concrete saw and one bulldozer would generate a noise level of approximately 76 dBA L_{eq} (RCNM Calculations are included in Appendix NOI). At 50 feet, the same equipment would generate a noise level of 84 dBA L_{eq} (Appendix NOI).

Depending on the outcome of geotechnical investigations, a deep foundation system may be required. Deep foundation system can be installed using several methods, such as pile driving or drilled piers. Pile driving involves hammering foundation piles into the ground using an impact pile driver; drilled piers are typically performed by drilling the hole for the foundation and filling the hole with concrete or similar material. As pile driving must occur in a stationary location, with equipment setbacks it is assumed the potential pile driving would occur as close as 20 feet from the adjacent municipal building, and 100 feet from Martin Luther King. Jr. Civic Center Park and the nearest multi-family residences. At 20 feet, an impact pile driver would generate a noise level of approximately 102 dBA L_{eq}. At 100 feet, the pile driver would generate a noise level of 88 dBA L_{eq}. An auger drill rig would involve similar operation and noise to a device used for drilled piles; at 20 feet, an auger drill rig would generate a noise level of approximately 85 dBA L_{eq}. At 100 feet, the auger drill rig would generate a noise level of 71 dBA L_{eq}.

Groundborne Vibration

Berkeley City College has not established criteria for vibration impacts, and the City's General Plan and Municipal Code do not contain criteria for vibration impacts or analysis. Therefore, the threshold for structure damage applied to the project is from Caltrans' *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020a), which lists 0.25 in/sec PPV at residential structures as the limit that would prevent structural damage regardless of building construction type, 0.1 in/sec PPV for fragile buildings, and 0.24 in/sec PPV as the distinctly perceptible vibration annoyance potential criteria for human receivers.

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

Construction

General Construction

As construction equipment would move throughout the site during a normal construction day (e.g., from between 20 to 100 feet from adjacent property lines), a reasonable estimate of the average distance during a day of the equipment use was calculated (i.e., the approximate center of construction activity) for the purposes of estimating a typical noise level that sensitive receivers would experience. The nearest noise-sensitive receivers from general construction activities would include multi-family residences located 185 feet to the northeast, park uses 125 feet to the south, and commercial uses located 50 feet west of the project site (measured from the center of the site). As the construction equipment would operate for more than 10 days, the stationary noise limits in Table 23 would apply. However, the standards do not specifically define where the noise level should be analyzed; i.e., the Berkeley Municipal Code does not state if the limits apply to the property line, exterior use areas, etc. Caltrans identifies "frequent human use areas" as a primary consideration for exterior noise impacts; these are exterior areas where frequent human use occurs that would benefit from a lowered noise level (Caltrans 2020b). As an example, a parking lot is not considered to be an area of frequent human use that would benefit from a lowered noise level because people only spend a few minutes there getting in and out of their cars and there would be no benefit to a lowered noise level. Examples of a frequent human use area include backyards, outdoor seating areas at restaurants or outdoor use areas at hotels, if those are areas where people

spend an extended period of time on a regular basis. Areas of frequent human use would also include the interior locations of nearby buildings such as offices or residences.

The nearest exterior frequent human use area is the plaza area of Martin Luther King. Jr. Civic Center Park. The closest multi-family residential areas have exterior frequent human use areas on rooftops at 2002 Addison Street and 1935 Addison Street, and balconies at 1950 Addison Street, which is under construction. 1935 Addison Street and 1950 Addison Street have structures intervening in between those properties and the project site, such as the adjacent municipal structure at 2100 Milvia Street. Given the height of the intervening structures compared to the height of construction equipment, construction noise to 1935 Addison Street and 1950 Addison Street would be heavily shielded by existing structures and would experience negligible construction noise.

One concrete saw and one bulldozer would generate a noise level of approximately 76 dBA L_{eq} at 125 feet and 72 dBA L_{eq} at 185 feet (see Appendix NOI). This would exceed the 65 dBA L_{eq} limit for stationary equipment for R-3 zones such as the Martin Luther King. Jr. Civic Center Park and the rooftop balcony of 2002 Addison Street.

Interior noise levels from general construction activities, with a typical 20 dBA exterior-to-interior noise attenuation, would result in noise levels of 64 dBA L_{eq} at the commercial structure and 56 dBA L_{eq} at the nearest multi-family residences, which would not exceed the 70 dBA commercial limit and 65 dBA L_{eq} multi-family residential limit for stationary equipment.

As described above in the *Regulatory Setting* section, the Berkeley Municipal Code limits construction noise from stationary equipment at affected properties to 60 dBA L_{eq} on weekdays and 50 dBA L_{eq} on weekends and holidays in the R-3 zoning district. It is anticipated that noise from construction of the proposed project would exceed these limits without implementation of noise reduction measures.

However, implementation of Mitigation Measure N-1 would require reduced construction hours and additional measures that would reduce construction noise. Adherence to the requirements of Mitigation Measure N-1 would ensure that construction noise occurs within reduced daytime hours and that that noise levels would be reduced to the extent feasible. Therefore, construction would not occur during normal sleeping hours for residents, which are the most sensitive time for exposure to noise. In addition, construction activities associated with the project would be temporary and consistent with typical construction projects in an urban area such as the project site. Therefore, impacts from general construction activities would be less than significant with mitigation.

Foundation Pile Construction

The nearest exterior area frequently used by humans to foundation pile construction activities would be the plaza area of Martin Luther King. Jr. Civic Center Park. An impact pile driver would generate a noise level of approximately 88 dBA L_{eq} at 100 feet (see Appendix NOI). This would exceed the 65 dBA L_{eq} limit for stationary equipment for R-3 zones. Therefore, impacts from impact pile driving to exterior areas would be potentially significant. Additionally, interior noise levels from impact pile driver construction activities, with a typical 20 dBA exterior-to-interior noise attenuation, would result in an interior noise level of 82 dBA L_{eq}. This would exceed the 70 dBA commercial limit and Mitigation Measure N-2 would be required. Impacts from foundation pile construction activities would be less than significant with implementation of Mitigation Measure N-

2, as the use of drilled piles or other activity verified by a qualified acoustician would ensure construction noise would not exceed the applicable standards.

An auger drill rig would generate a noise level of 71 dBA L_{eq} at 100 feet; this would exceed the 65 dBA L_{eq} limit and impacts from drilled piles to Martin Luther King. Jr. Civic Center Park and to the rooftop area of 2002 Addison Street would be potentially significant. Interior noise from use of an auger drill rig would generate an interior noise level of 65 dBA L_{eq} at 20 feet; this would not exceed the 70 dBA L_{eq} limit and impacts from drilled piles to interior areas would be less than significant.

Traffic Noise

According to the CalEEMod outputs for air quality and GHG emissions (Appendix AQ), the 200 days when building construction and architectural coating phases would overlap would generate the greatest number of daily vehicle trips, with a total of 30 worker trips that would occur per day and 10 total vendor trips, or less than one per day, assuming that vendor trips would be spread evenly over the 523 days of the building construction phase. Therefore, the building construction phase would involve up to 31 daily trips. Milvia Street has a reported volume of 5,440 daily trips (City of Berkeley 2000). Project construction would result in a less than one percent increase in daily trips, which would be less than a doubling of existing traffic (i.e., a 3 dBA barely perceptible noise increase), resulting in a negligible increase in in traffic noise from construction trips. Therefore, noise impacts from construction traffic would be less than significant.

Operation

Project operation would generate noise similar to and consistent with neighboring uses in downtown Berkeley, such as traffic, loading, and mechanical equipment noise.

Traffic Noise

As described in Section 17, *Transportation*, the project site would generate an increase of 564 daily trips[6] (Appendix TRA). Generally, a doubling of traffic volume results in a 3 dBA increase, which is considered barely perceptible to humans. Based on existing traffic volumes in the vicinity (5,440 daily trips on Milvia Street; City of Berkeley 2000), the project would cause a 10 percent increase in the existing traffic.[7] The resultant noise increase in the vicinity would be less than 1 dBA. Therefore, project trips would not result in perceptible increases in traffic noise levels. Impacts would be less than significant.

Stationary Noise

The project's primary stationary noise generator would be mechanical equipment and the emergency generator proposed on the roof level. The emergency generator would be located within a Level 2 Sound Attenuation enclosure, resulting in a noise level of 78 dBA at 23 feet. The generator would be tested for 30 minutes each month, per National Fire Protection Association 110 standards. In addition, the generator would only be tested during the daytime hours. The generator would have a noise level of 60 dBA at 175 feet (the distance between the approximate location of the generator and the nearest multi-family residences), which is below the 60 dBA daytime noise threshold for multi-family residential uses. The generator would have a noise level of 73 dBA at 40 feet (the distance between the approximate location of the generator and the site's western

[6] 1,282 daily trips to the project site multiplied by 44 percent, which accounts for the estimated 41 percent transit and 15 percent bicycle or pedestrian modes of travel.
[7] 564 project trips divided by 5,440 existing trips is a 10 percent increase in trips.

property line), which is above the 65 dBA daytime noise threshold for commercial receptors. However, as shown on Figure 10, the mechanical equipment area, including where the emergency generator would be stored, is surrounded by walls, which would reduce the generator's noise by at least 15 dBA (World Health Organization 1999), to 58 dBA, which would be below the 65 dBA daytime noise threshold for commercial receptors. Impacts would be less than significant.

Mitigation Measures

NOI-1 Construction Noise Reduction Measures

Construction Hours. Construction activity shall be limited to between the hours of 7:00 a.m. and 6:00 p.m. on Monday through Friday, and between 9:00 a.m. and 5:30 p.m. on Saturday. No construction-related activity shall occur on Sunday or any Federal Holiday.

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 extent feasible, subject to review and approval of the District and DSA. The noise reduction program shall include the time limits for construction listed above, and measures needed to ensure that construction noise does not exceed the thresholds identified in Berkeley Municipal Code Section 13.40.070, which are applicable to off-site receptors within the City. 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:

- Construction equipment shall be well maintained and used judiciously to be as quiet as practical.
- Internal combustion engine-driven equipment shall be equipped with mufflers, which are in good condition and appropriate for the equipment.
- "Quiet" models of air compressors and other stationary noise sources shall be used, where technology exists. Hydraulically- or electrically-powered equipment shall be selected and pneumatically-powered equipment shall be avoided where feasible.
- Stationary noise-generating equipment shall be located as far as possible from sensitive receptors when adjoining construction sites. Temporary noise barriers or partial enclosures shall be constructed to acoustically shield such equipment where feasible.
- Unnecessary idling of internal combustion engines shall be prohibited.
- Solid plywood fences shall be constructed around construction sites adjacent to noise-sensitive land uses where the noise control plan analysis determines that a barrier would be effective at reducing noise.
- Temporary noise control blanket barriers, if necessary, shall be erected along building facades facing construction sites. This measure would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
- Construction-related traffic shall be routed along major roadways and away from sensitive receptors where feasible.

The District shall ensure that all feasible noise reduction measures are used during construction by including language in the construction contract that requires implementation of the above measures.

NOI-2 Foundation Pile Noise and Vibration Reduction Measures

The District shall require the construction contractor to implement one of the following measures to ensure that foundation pile construction activities do not exceed construction noise limits in Berkeley Municipal Code Section 13.40.070, and 0.24 in/sec PPV at adjacent buildings and nearby sensitive receivers:

- Use of an impact or sonic pile driver shall not occur;
- Use of drilled piles only with temporary noise barriers and/or blankets; or
- If an alternative method for foundation piles is proposed other than drilled piles (e.g., micro piles), the method shall be reviewed by a qualified acoustician to ensure that noise and vibration levels do not exceed the City's noise and vibration standards. The analysis shall be performed prior to project approval from the DSA.

The District shall ensure that all feasible noise and vibration reduction measures are used during construction by including language in the construction contract that requires implementation of the above measures.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

General Construction

The greatest anticipated source of vibration during general project construction activities (note this does not include pile driving) would be from a large bulldozer, which may be used within 20 feet of the nearest structures when accounting for setbacks. A dozer creates approximately 0.089 in/sec PPV at a distance of 25 feet (Caltrans 2020a). This would equal a vibration level of 0.114 in/sec PPV at a distance of 20 feet.[8] This would be lower than what is considered a distinctly perceptible impact for humans of 0.24 in/sec PPV, and the structural damage impact for "historic and some old buildings" of 0.25 in/sec PPV. However, this would be greater than the 0.1 in/sec PPV threshold for fragile buildings. While the adjacent municipal structure to the west is considered to be historic (see Section 5, *Cultural Resources*), the structure does not appear to be in a fragile condition, as it is six stories tall with no visible damage or deterioration present from the exterior of the building, and is listed as having a high integrity (City of Berkeley 2009b). Therefore, temporary vibration impacts associated with general construction activities would be less than significant.

Foundation Pile Construction

The FTA provides vibration levels for pile driving and drilling as shown in Table 24. As shown therein, vibration levels from pile driver can vary widely depending on the type of pile driving, from as low as 0.170 in/sec PPV for typical sonic pile driving to 1.518 in/sec PPV for the upper range of impact pile driving (FTA 2018). Caisson drilling as referenced by the FTA is the same technique as drilled piles for the project foundations (i.e., it involves drilling holes into the ground and filling the holes with concrete to use as the foundation).

For the most conservative pile driving scenario of the upper range of an impact pile driver, the pile driving would generate a vibration level of 1.942 in/sec PPV at 20 feet. For the upper range of sonic

[8] $PPV_{Equipment} = PPV_{Ref} (25/D)^n$ (in/sec); PPV_{Ref} = reference PPV at 25 feet, D = distance, and n = 1.1

pile driving, this would generate a vibration level of 0.938 in/sec PPV at 20 feet. These would both exceed the distinctly perceptible impact for humans of 0.24 in/sec PPV, and the structural damage impact for "historic and some old buildings" of 0.25 in/sec PPV. Therefore, if impact or sonic pile driving is used, impacts from vibration would be potentially significant and Mitigation Measure N-2 would be required.

Table 24 Vibration Levels Measured during Construction Activities

Equipment		PPV at 25 feet (inches/second)
Pile Driver (impact)	Upper range	1.518
	Typical	0.644
Pile Driver (sonic)	Upper range	0.734
	Typical	0.170
Caisson Drilling		0.089

Source: FTA 2018

A caisson drill at 20 feet would generate a vibration level of 0.114 in/sec PPV at a distance of 20 feet.[9] This would be lower than what is considered a distinctly perceptible impact for humans of 0.24 in/sec PPV, and the structural damage impact for "historic and some old buildings" of 0.25 in/sec PPV. Therefore, temporary vibration impacts associated with drilled piles would be less than significant.

Operation

Project operation would not include substantial vibration sources. Therefore, operational vibration impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The nearest public airport to the project is the Oakland International Airport located approximately 10 miles south. The project site is not located in the Airport Influence Area or noise compatibility zones (County of Alameda 2010). Because the project is located outside the noise contours of the Oakland International Airport, and no other airports are located nearby, the project would not expose people residing or working in the project area to excessive aircraft-related noise. There would be no impact.

NO IMPACT

[9] $PPV_{Equipment} = PPV_{Ref} (25/D)^n$ (in/sec); PPV_{Ref} = reference PPV at 25 feet, D = distance, and n = 1.1

14 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 (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

a. Would the project 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)?

The project would support the projected 2.4 percent annual student enrollment increase at Berkeley City College through 2040 but would not directly result in population growth through the construction of housing. The project would serve the existing campus community and future enrollment projections and would not impact housing availability or demand. The project would not include or require new roads and other infrastructure that could facilitate growth, because it is located on a site already served by existing infrastructure. Therefore, the proposed project would not induce population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project would involve demolition of the existing vacant non-residential structure. The project would not displace existing residents or housing. It should be noted that persons experiencing homelessness sometimes use the alcoves in the existing building's street frontage for shelter. As these alcoves are not housing units, and their use is temporary, removal of the alcoves through building demolition and replacement would not displace existing residents or housing. Nevertheless, the District would work with the City of Berkeley's Health, Housing & Community Services Division if services for these individuals are needed prior to demolition. No impact would occur.

NO IMPACT

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15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:				
	1 Fire protection?	☐	☐	■	☐
	2 Police protection?	☐	☐	■	☐
	3 Schools?	☐	☐	☐	■
	4 Parks?	☐	☐	☐	■
	5 Other public facilities?	☐	☐	■	☐

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Berkeley Fire Department (BFD) provides emergency response and public safety services to the project site and vicinity. BFD is located at 2100 Martin Luther King Jr Way, one block west of the project site. Project construction and operation would increase the demand for fire protection and emergency medical services through the increase in traffic, density, and building heights associated with the proposed project. However, the project is required to meet standard California building and fire code requirements, which would be confirmed during DSA review and approval of the project. These requirements would reduce the demand on fire protection services through enhanced on-site fire safety features, including sprinklers and alarm systems.

The project would not modify existing roadways or emergency access routes although temporary closure of on-street parking and temporary realignment of driving lanes may be required during construction. The new structure would replace an existing one, would be required to comply with applicable building and fire codes, and therefore could be served by BFD in the event of an emergency. The project would not require BFD to physically alter or construct new facilities that could result in an environmental impact. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The project site is within the service area of and is currently serviced by the Berkeley Police Department. The project would not create excessive demand for police services or introduce development to areas outside of normal service range that would necessitate new police protection facilities. Moreover, as described in Section 14, *Population and Housing*, the project would not induce population growth. The proposed project would thus not create the need for new or expanded police protection facilities and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The project would not involve the construction of housing or other facilities and would not induce population growth. The project would not result in the need for new schools or parks or result in the physical deterioration of existing schools or parks. No impact would occur.

NO IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The environmental impacts associated with the project are discussed throughout the Initial Study. The project would not involve the construction of housing or other facilities. No population growth would be induced by the project; however, the increase in students accommodated by the project may use City or other local libraries, in addition to existing library facilities located on Floor 1 of the main campus building at 2050 Center Street. Students also have the option to pay for a six-month library card to access materials at the University of California, Berkeley library (Berkeley City College 2021). The Berkeley Public Library serves a population of more than 121,240 (Berkeley Public Library 2021). The project would support the projected 2.4 percent annual student enrollment increase, and considering the College's existing enrollment of 1,491, this increase in enrollment would not result in a substantial increase in library usage and the project would not result in the need for new public library facilities or the physical deterioration of existing library facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
a. 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. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project would not involve the construction of new housing, nor would it involve new businesses. Therefore, the proposed project would not lead directly or indirectly to an increase in population that would generate greater demand for regional parks or other recreational facilities. No new recreational facilities are proposed. There would be no impacts related to recreation from the proposed project.

NO IMPACT

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17 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 use (e.g., farm equipment)?	☐	☐	■	☐
d. Result in inadequate emergency access?	☐	☐	■	☐

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

The project would support the projected 2.4 percent annual student enrollment increase at the College by 2040. Increases in vehicle, transit, bicycle, and pedestrian trips would result from anticipated enrollment increases that would be accommodated by the project. The project would slightly modify travel patterns, as trips that are associated with the existing annex at 2000 Center Street would be relocated to the 2118 Milvia Street location. The project's estimated trip generation and the anticipated growth is provided in Table 25. However, these numbers do not take into account the use of transit, bicycling, walking, and other modes of transportation. Table 26 provides the College's trip generation by mode of transportation.

The project is not directly adjacent to existing or planned transit facilities on Center or Milvia streets and would not conflict with nearby transit routes that could result in hazardous conditions or transit delays. While there would be a net increase of 189 AM and 179 PM peak hour vehicle trips, these trips would be dispersed throughout Downtown Berkeley, and thus would not conflict with existing or planned transit operations. The cumulative net increase of 194 AM and 183 PM peak hour transit riders constitute approximately 6 percent of the existing seating capacity on AC Transit bus routes and BART lines serving the project area (Appendix TRA). This increase would likely be accommodated by the existing transit capacity, which typically includes seats and standees. For these reasons, the proposed project would have a less than significant impact to transit.

Table 25 Berkeley City College Trip Generation

Scenario	Daily Trips	Total AM Peak Hour Trips	Total PM Peak Hour Trips
Existing (2020)	**2,993**	**779**	**736**
Existing Plus Project (2020)			
2050 Center Street	2,195	572	539
2118 Milvia Street	798	207	197
Total	*2,993*	*779*	*736*
Cumulative Year (2040) Total			
2050 Center Street	3,527	918	866
2118 Milvia Street	1,282	334	315
Total	*4,810*	*1,252*	*1,182*
Net Change from 2020 to 2040 Total			
2050 Center Street	534	139	130
2118 Milvia Street	1,282	334	315
Total	*1,816*	*473*	*445*

Source: Appendix TRA

Table 26 Berkeley City College Trip Generation by Mode of Transportation

		Year 2020			Year 2040			Net Change		
Mode of Travel	Percent	Daily	AM	PM	Daily	AM	PM	Daily	AM	PM
Drive and Park	36	1,733	280	265	2,784	451	425	1,052	170	161
Pick-up/Drop-off	4	193	31	29	309	50	47	117	19	18
Transit	41	1,973	319	301	3,171	513	484	1,198	194	183
Bike or Walk	15	722	117	110	1,160	188	177	438	71	67
Other	4	193	31	29	309	50	47	117	19	18
Total	**100**	**4,814**	**778**	**734**	**7,734**	**1,252**	**1,180**	**2,922**	**473**	**447**
Vehicle Trips		***1,926***	***311***	***294***	***3,093***	***501***	***472***	***1,169***	***189***	***179***

Source: Appendix TRA

The proposed project is located directly adjacent to a Class III bike route on Milvia Street and near Class II bike lanes on Center Street (east of Milvia Street). The project would not include on-site parking that would otherwise concentrate vehicle traffic to a specific driveway, and thus would not increase potential conflicts with nearby bicycle access. To encourage and accommodate alternative modes of travel, the proposed project would provide secure bicycle parking on the building's first floor adjacent to the main entrance. There would be increased pedestrian trips between the project site and 2050 Center Street. These pedestrian trips would be adequately and safely accommodated by the existing pedestrian facilities at the Center Street/Milvia Street intersection, which has high visibility crosswalks and pedestrian signal heads on all four legs of the intersection. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Effective July 1, 2020, SB 743 requires all CEQA lead agencies to establish VMT as the metric replacing level of service for evaluating CEQA traffic and transportation impacts. The District has not established VMT per capita thresholds for its uses as there is no available data, and any assumptions would be speculative. The Governor's Office of Planning and Research (OPR) guidance establishes that a project that is located in a TAZ generating VMT per capita at least 15 percent below regional averages would have a less than significant impact (OPR 2018). It also recommends that lead agencies screen out VMT impacts for projects located within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor.[10]

The Transportation Memorandum (Appendix TRA) used the ACTC Countywide Travel Demand Model to determine the average VMT per capita consistent with SB 743 guidance from the OPR. Since the model does not provide VMT for educational land uses, the analysis utilized its office designation as a proxy land use to determine an average VMT per employee. As shown in Table 27, the average daily VMT per employee in TAZ 59 where the project site is located is 9.5, which is below the citywide average less 15 percent or countywide average less 15 percent thresholds under both existing (2020) and cumulative (2040) conditions. Because the proposed project would generate vehicle trips in an area with relatively low VMT, it would not have an adverse effect related to VMT. Furthermore, the proposed project would be located within 0.5 mile of a major transit stop, which would reduce the proposed project's vehicle trips and associated VMT.

Table 27 Year 2020 VMT per Employee

Region	Regional Average Existing (Cumulative)	Regional Average Less 15% Existing (Cumulative)	TAZ 59
City of Berkeley	22.9 (24.4)	19.5 (20.7)	9.5
Alameda County	28.5 (29.1)	24.2 (24.6)	

Source: Appendix TRA

The project site is in a low-VMT zone and within 0.5 mile from a major transit stop, and it would not generate net new trips under the Existing plus Project condition. Therefore, the proposed project would result in less than significant impacts related to VMT.

LESS THAN SIGNIFICANT IMPACT

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

d. Would the project result in inadequate emergency access?

The project would not modify access to the project site or otherwise obstruct emergency vehicles attempting to access the site or surrounding area, although temporary closure of on-street parking and temporary realignment of driving lanes may be required during construction. As described in Section 9, *Hazards and Hazardous Materials*, criterion (f), temporary lane realignment would keep both travel lanes open and would not interfere with the use of emergency evacuation routes or

[10] Major transit stop includes an existing rail transit station or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (PRC Section 21064.3). A high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours (PRC Section 21155).

require vehicle detours. The project would not modify existing roadways or introduce a geometric design feature that would pose a substantial safety hazard to vehicles, bicyclists, or pedestrians. While the project would result in a net increase of 189 AM and 179 PM peak hour vehicle trips, these trips would be dispersed throughout Downtown Berkeley, and thus would not obstruct the movement of emergency vehicles in the project area. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or 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:				
a. 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	☐	■	☐	☐
b. 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	■	☐	☐

On July 1, 2015, AB 52 was enacted. The law expands CEQA by defining a new resource category, tribal cultural resources. AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

2. 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 these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is 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?

No tribes have requested consultation from the District pursuant to Public Resources Code Section 21080.3.1. Although no tribal cultural resources are expected to be present on the site, there is the possibility of encountering undisturbed subsurface tribal cultural resources. Grading the project site could potentially result in significant impacts on unanticipated tribal cultural resources. Mitigation Measure TCR-1 would reduce impacts on unidentified tribal cultural resources to a less than significant level.

Mitigation Measure

TCR-1 Unanticipated Discovery of Tribal Cultural Resources

In the event that cultural resources of Native American origin are identified during construction, all earth-disturbing work within 50 feet of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find and an appropriate Native American representative, based on the nature of the find, is consulted. If the District, in consultation with local Native Americans, determines the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The plan would include avoidance of the resource or, if avoidance of the resource is infeasible, the plan would outline the appropriate treatment of the resource in coordination with the archeologist, if applicable, and the appropriate Native American tribal representative.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

19 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 storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	■	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	■	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	■	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	■	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

The site is served by the EBMUD for water supply, and the City of Berkeley for wastewater, stormwater, and solid waste services. PG&E provides natural gas service, PG&E and EBCE provide electricity service, and AT&T and Comcast provide telecommunications services.

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

Water

EBMUD would provide potable water to the project, as it does to other commercial, institutional, and residential customers in the project area. A total of 90 percent of EBMUD's water supply is sourced from the Mokelumne River Watershed, and the remaining 10 percent comes from protected watershed lands and reservoirs in the East Bay Hills (EBMUD 2016). EBMUD's water supply system was designed and constructed to deliver 325 million gallons per day (MGD), and has a surplus capacity of 95 MGD in the highest water demand year. The proposed project would increase demand for water above existing conditions on the project site. The project's estimated water generation would be approximately 6.96 million gallons per year (Appendix AQ), or approximately 19,061 gallons per day (GPD), which is approximately 0.02 percent of EBMUD's surplus water capacity during the highest water demand year. Therefore, EBMUD's water supply system has sufficient capacity to serve the project from existing entitlements and resources and no new or expanded water facilities would be required as a result of the project. This would be a less than significant impact.

Wastewater

The City of Berkeley would provide wastewater conveyance services for wastewater generated on the project site. The City's collection system includes approximately 254 miles of sanitary sewers that convey wastewater to EBMUD's interceptor system and treatment plant (City of Berkeley 2019). EBMUD services approximately 685,000 customers along the eastern shore of the San Francisco Bay. Wastewater from East Bay communities goes to EBMUD's treatment plant in Oakland which can provide primary treatment for up to 320 MGD. The plant has a maximum flow of 168 MGD and an average of about 63 MGD (EBMUD 2021). The project's estimated wastewater generation would be approximately 5.56 million gallons per year (assuming water use is approximately 120 percent of wastewater generation), or approximately 15,233 GPD. This would represent less than one percent of EBMUD's remaining treatment capacity. Therefore, the proposed project would not require the construction of new municipal wastewater treatment facilities or impact the treatment capacity of existing municipal wastewater treatment providers. Impacts to wastewater treatment facilities would be less than significant.

Stormwater

As discussed under Section 10, *Hydrology and Water Quality*, modifications to existing stormwater drainage facilities serving the project site would not be required as a result of the project. The area surrounding the project site is urbanized and largely consists of impervious surfaces, including structures, parking lots, and roadways. Stormwater runoff generated by the proposed project would be collected by drainage inlets and conduits and conveyed to the San Francisco Bay, as under current conditions. The proposed project would modify the on-site drainage pattern; however, project drainage alterations would not result in a substantial change, as runoff would continue to flow to existing stormwater drains. The project site is entirely covered by impervious surfaces, and the proposed project would maintain the total area of impervious surfaces, as the existing building would be demolished and replaced with the proposed building with approximately the same lot

coverage. The proposed project would not substantially alter the existing drainage pattern of the site or area and would not substantially increase the rate of surface runoff in a manner which would exceed capacity of the existing stormwater system. The proposed project would not require the construction of new off-site stormwater drainage facilities or expansion of existing facilities. Impacts would be less than significant.

Electricity, Natural Gas, and Telecommunications

A significant impact to electricity, natural gas, and telecommunications facilities may occur if a project's demand for these services exceeds the capacity of local providers. The proposed structure would not use natural gas, as described in Section 4, *Project Characteristics*, operation of the new structure would be all electric, consistent with the College's Sustainability and Resiliency Strategy and the Berkeley Municipal Code Chapter 12.80. EBCE would provide electricity to the site using transmission infrastructure operated and maintained by PG&E. EBCE would provide carbon-free and renewable energy to the project through the Brilliant 100 program (EBCE 2020). The project would include the installation of solar panels on the roof, which would decrease the total electricity demand. The project would also include an on-site diesel emergency generator on the sixth floor of the building, in the mechanical equipment area. The generator would not be run daily and would only be utilized during power outages and for routine testing.

Telecommunication facilities are readily available in the area. Companies such as AT&T or Comcast would serve the project site. The site occurs in a developed and urban area where AT&T and Comcast have existing infrastructure that has adequate capacity to service the proposed project. The project would not require extension or construction of new telecommunication facilities.

Therefore, the project would not result in the relocation or construction of an electricity, natural gas, or telecommunications facility. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

As described above, EBMUD would provide water service to the project. EBMUD's 2015 Urban Water Management Plan addresses the district's water system and includes descriptions of water supply sources, water use, comparisons of supply and demand during dry years. Per the Urban Water Management Plan, normal year, single dry year, and multiple dry year supply and demand comparisons are shown in Table 28.

Table 28 shows that EBMUD's projected water supplies are sufficient to meet projected demands during normal, dry, and second dry year conditions, with planned rationing (between 5 and 7 percent in the single dry year scenario and 20 percent in the second dry year). During a severe drought condition, under the third dry year scenario, EBMUD will not have adequate supplies and would need to impose mandatory water use restrictions (EBMUD 2016). To address this unmet water demand in the third dry year scenario, EBMUD has identified several strategies, including obtaining supplemental supplies, developing a water transfer program to secure dry-year water supply, investigating the potential for a desalination project, developing the bayside groundwater project, investigating long-range groundwater banking and exchange, expanding surface water storage, and partnering with other agencies to develop integrated water management strategies to supplement supplies (EBMUD 2016). These strategies, coupled with EBMUD's Water Shortage Contingency Plan, conservation policies, and other programs implemented by EBMUD, would

ensure EBMUD is able to provide water even in multiple dry year scenarios. Therefore, there would be adequate water supply to server the project in normal, dry, and multiple dry years. This impact would be less than significant.

Table 28 EBMUD Supply and Demand in Million Gallons Per Day for a Normal, Single

	Year				
Dry Years	**2020**	**2025**	**2030**	**2035**	**2040**
Normal Year					
Supply Totals	217	218	222	229	230
Demand Totals	217	218	222	229	230
Unmet Demand	0	0	0	0	0
Single Dry Year					
Supply Totals	204	205	209	214	214
Demand Totals	203	204	208	213	214
Unmet Demand	0	0	0	0	0
Second Dry Year					
Supply Totals	174	174	178	183	184
Demand Totals	174	174	178	183	184
Unmet Demand	0	0	0	0	0
Third Dry Year					
Supply Totals	174	173	166	162	145
Demand Totals	174	174	178	183	184
Unmet Demand	0	2	13	24	48

Source: EBMUD 2016

LESS THAN SIGNIFICANT IMPACT

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

As described in response to criterion (a), above, the project's estimated wastewater generation would be approximately 5.56 million gallons per year (assuming water use is approximately 120 percent of wastewater generation), or approximately 15,255 GPD. This would represent less than 1 percent of EBMUD's remaining treatment capacity. Therefore, the proposed project would be served by wastewater facilities that have adequate capacity to serve the project in addition to the City's existing wastewater treatment commitments. There would be a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

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

The City's Zero Waste Division provides all commercial refuse, recycling, and compost collection service for Berkeley businesses. Solid waste from the project site would be directed from the City's Transfer Station to the Altamont Landfill located approximately 45 miles east. The Altamont Landfill has a maximum permitted capacity of 124,400,000 cubic yards and an estimated ceased operation date of December 2070. As of June 2016, the remaining capacity was roughly 65,400,000 cubic yards with a maximum permitted throughput of 11,150 tons/day.

Using an estimated solid waste generation rate provided by CalEEMod for a junior college (2 year) land use, the proposed project would result in an increase of approximately 430 pounds of solid waste per day, or 78 tons per year (Appendix AQ). This represents approximately 0.002 percent of the permitted daily throughput of the landfill. This does not represent a substantial increase in waste at for the Altamont Landfill and the project would not be served by a site without sufficient capacity.

Berkeley City College maintains a Sustainability and Resiliency Strategy (2018), which the proposed project would comply with. This Strategy includes measures that would achieve the College's sustainability goals. These include goal SW-2 which seeks to convert from single stream to dedicated recycling and provide dedicated recycling and compost receptacles on campus to increase waste diversion rates. It also includes goal SW-11 which establishes zero waste stations and provides facilities that allow for the proper sorting of waste, including bins for trash, recycling and compost, with visually compelling signage in high-traffic areas.

Therefore, the project would not generate solid waste beyond the capacity of local infrastructure and complies with Berkeley waste reduction regulations. The project would have a less than significant impact.

LESS THAN SIGNIFICANT IMPACT

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20 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 evacuation plan?	☐	☐	■	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	■	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	■
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	■	☐

The project site is not located in a state responsibility area or very high fire hazard severity zone for wildland fires. However, the site is located approximately 0.8 mile west of a very high fire hazard severity zone (California Department of Forestry and Fire Protection 2008).

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project site is within Zone 41 of the City's Wildfire Evacuation Plan, and outside the City's designated Hillside Fire Zone (City of Berkeley 2020). No roads would be permanently closed because of the proposed project although temporary closure of on-street parking and temporary realignment of driving lanes may be required during construction, and no structures would be developed that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would be accessible from Milvia Street and Center Street, which are listed as emergency access and evacuation routes,

in addition to other streets surrounding the project site. These roadways provide sufficient ingress/egress for typical passenger vehicles that would access the project site and surrounding areas. Project implementation would not interfere with existing emergency evacuation plans or emergency response plans in the area. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project site is relatively flat, with an elevation of approximately 170 feet above mean sea level. Surrounding areas are also relatively flat, or gently sloped, with steeper hillsides located east of the project site and east of Gayley Road. In the project vicinity, prevailing wind blows to the southwest (National Oceanic and Atmospheric Administration 2020). Due to the presence of nearby slopes and wind direction, which could carry fires down slopes toward the site, the project could expose project occupants to wildfire impacts. However, building code fire safety requirements and project design review by the DSA would require the provision of fire suppression water, promote early warning fire alarm systems, require building maintenance to protect against fire risk, and require smoke detector and fire extinguisher installation. Required compliance with building code fire safety requirements would reduce this impact to a less than significant level.

LESS THAN SIGNIFICANT IMPACT

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project would not involve the construction of new roads or the extension of utilities that could exacerbate wildfire risk or result in temporary or ongoing impacts to the environment. The project would be required to comply with building code and fire safety requirements. No impact would occur.

NO IMPACT

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project would introduce people to the project site, which is located near a very high fire hazard severity zone. The site is relatively flat and not located adjacent to steep slopes; therefore, the risk of downslope flooding or landslides at the site is minimal. Additionally, the site is currently fully paved and developed with a structure, which would be demolished and replaced with a new structure that has a similar footprint on the site. Therefore, runoff and drainage on the site would not be substantially altered by the project. Therefore, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a. 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. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	■	☐	☐
c. 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?

As noted in Section 5, *Cultural Resources*, and Section 7, *Geology and Soils*, no historical, archeological, or paleontological resources were identified on the project site. Nevertheless, the potential for the discovery of buried cultural materials during development activities remains. Implementation of Mitigation Measures CUL-1 through CUL-3 would reduce impacts to previously undiscovered archaeological resources to a less than significant level and Mitigation Measure GEO-2 would reduce impacts to previously undiscovered paleontological resources to a less than significant level by providing a process for evaluating and, as necessary, avoiding impacts to resources found

during construction. Mitigation Measures BIO-1 and BIO-2 in Section 4, *Biological Resources*, would reduce impacts to wildlife to less than significant levels.

As noted throughout the Initial Study, most other potential environmental impacts related to the quality of the environment would be less than significant or less than significant with implementation of mitigation measures.

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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)?

The City of Berkeley maintains a list of approved and pending projects in the project vicinity, which were considered as part of this cumulative impact analysis. This includes approximately 1,900 dwelling units, 64,000 square feet of commercial and retail uses, and hotels and recreational uses across 26 total pending and approved projects within 1 mile of the project site. Cumulative projects would be required to comply with the City's planning documents and Berkeley Municipal Code, in addition to standard City conditions of approval and required mitigation measures. As discussed in this Initial Study, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. As discussed in Section 3, *Air Quality*, and Section 8, *Greenhouse Gas Emissions,* the program would not exceed BAAQMD thresholds and implementation of Mitigation Measure AQ-1 would reduce potential construction fugitive dust impacts to a less than significant level. As discussed in Section 17, *Transportation,* the project would result in less than significant impacts to traffic flow and transportation systems in the vicinity of the site. The project would not result in substantial long-term environmental impacts and, therefore, would not contribute to cumulative environmental changes that may occur due to planned and pending development. Potential impacts of the project would not be cumulatively considerable.

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

Effects on human beings are generally associated with impacts related to issue areas such as air quality, geology and soils, noise, traffic safety, and hazards. As discussed in this Initial Study, with mitigation incorporated, the project would result in a less than significant impact in each of these resource areas. As discussed in Section 3, *Air Quality,* the project would not generate air quality pollutants below BAAQMD thresholds with implementation of Mitigation Measure AQ-1. As discussed in Section 7, *Geology and Soils,* with implementation of Mitigation Measure GEO-1, the project would not result in substantial soil erosion or loss of topsoil. As discussed in Section 9, *Hazards and Hazardous Materials*, the project would not create a significant hazard to the public or emit hazardous materials. As discussed in Section 13, *Noise*, with implementation of Mitigation Measures NOI-1 and NOI-2, noise and vibration impacts from project construction would be less than significant, and operational noise impacts would not exceed noise thresholds for adverse effects on human beings. As discussed in Section 17, *Transportation,* the project would not alter existing transportation infrastructure or have adverse impacts on traffic safety. The project would not cause substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant with mitigation.

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