INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

2942 COLLEGE AVENUE PROJECT

BERKELEY, CALIFORNIA

LSA

March 2025

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INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

294 COLLEGE AVENUE PROJECT

BERKELEY, CALIFORNIA

Submitted to:

City of Berkeley
Planning and Development Department
Land Use Planning Division
1947 Center Street, 2nd Floor
Berkeley, California 94704

Prepared by:

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Project No. CBE1906.14

LSA

March 2025

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LIST OF ABBREVIATIONS AND ACRONYMS

µg/m^3	micrograms per cubic meter
2020 UWMP	2020 Urban Water Management Plan
AC	Alameda-Contra Costa County
ACMs	asbestos-containing materials
ACTC	Alameda County Transportation Commission
ACWMA	Alameda County Waste Management Authority
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
APN	Assessor's Parcel Number
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
Basin Plan	Water Quality Control Plan
Berkeley LPO	Berkeley Landmarks Preservation Ordinance
bgs	below ground surface
BMC	Berkeley Municipal Code
BMPs	Best Management Practices
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
California Register	California Register of Historical Resources
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
CGS	California Geological Survey

CH_4	methane
CHRIS	California Historical Resources Information System
City	City of Berkeley
Clean Air Plan	Bay Area Air Quality Management District 2017 Clean Air Plan
CNDDB	California Natural Diversity Data Base
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
COA	Condition of Approval
COC	chemicals of concern
CREC	Controlled Recognized Environmental Conditions
CWA	federal Clean Water Act
dB	decibel
dBA	A-weighted decibel
DBH	diameter at breast height
DDT	dichlorodiphenyltrichloroethane
DIR	California Department of Industrial Relations
DOSH	Division of Occupational Safety and Health
DPR	California Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EBMUD	East Bay Municipal Utility District
EBP	East Bay Plain
EMA	Environmental Management Area
EMFAC2021	California Emission Factor Model, version 2021
Emissions Plan	Construction Emissions Minimization Plan
ESA	Environmental Site Assessment
ESL	environmental screening level
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration

FIRM	Flood Insurance Rate Map
GHG	greenhouse gas
gpd	gallons per day
GSP	Groundwater Sustainability Plan
GWP	Global Warming Potential
HASP	Health and Safety Plan
HFC	hydrofluorocarbon
HMBP	Hazardous Materials Business Plan
HVAC	heating, ventilation, and cooling
I-580	Interstate 580
I-80	Interstate 80
I/I	Infiltration and Inflow
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
LBP	lead-based paints
L_{dn}	day-night average level
L_{eq}	equivalent continuous sound level
L_{max}	maximum instantaneous sound level
LOP	Local Oversight Program
LOS	level of service
LUST	leaking underground storage tank
MEI	maximally exposed individual
mgd	million gallons per day
MRP	Municipal Regional Stormwater Permit
MWELO	Model Water Efficient Landscape Ordinance
MWWTP	Main Wastewater Treatment Plant
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NO_2	nitrogen dioxide
NO_x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System

NWIC	Northwest Information Center
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
Orinda WTP	Orinda Water Treatment Plant
OSHA	U.S. Department of Labor Occupational Safety and Health Administration
Pb	lead
PCB	polychlorinated biphenyl
PCE	tetrachloroethane
PFC	perfluorocarbon
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size
POTWs	publicly owned treatment works
PRC	Public Resources Code
project	2942 College Avenue Project
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
rms	root mean square
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SDS	Safety Data Sheet
SF_6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SGMP	Soil and Groundwater Management Plan
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SR-13	State Route 13
SVP	Society of Vertebrate Paleontology
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TIUGA	tank(s) in an underground area

TMD	Toxics Management Division
TMDL	Total Maximum Daily Load
TPA	Transit Priority Area
TPHg	total petroleum hydrocarbons-gasoline
US EPA	United States Environmental Protection Agency
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
VdB	vibration levels from noise
VDECS	Verified Diesel Emission Control Strategies
VMS	vapor intrusion mitigation system
VMT	vehicle miles traveled
VOC	volatile organic compound
WSMP	Water Supply Management Program
ZAB	Zoning Adjustments Board

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CITY OF BERKELEY
LAND USE PLANNING
INITIAL
STUDY

1.0 PROJECT INFORMATION

The following is an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed 2942 College Avenue Project (project). An overview of the project site location and existing characteristics is followed by a description of the proposed development and a summary of requested approvals and entitlements. Copies of all materials referenced in this report are available for review in the project file during regular business hours at the City of Berkeley (City) Planning and Development Department, Land Use Planning Division, as well as on the City's website at: https://aca.cityof berkeley.info/CitizenAccess/Default.aspx. Click on Zoning tab; enter permit number ZP2021-0072; select permit ZP2021-0072; click on the "Record Info" drop down menu; click on Attachments for a list of all application materials.

1. **Project Title:**
   2942 College Avenue Project

2. **Lead Agency Name and Address:**
   City of Berkeley (City)
   1947 Center Street, 2nd Floor
   Berkeley, California 94704

3. **Contact Person and Phone Number:**
   Niloufar Karimzadegan, Senior Planner
   Planning and Development Department
   Land Use Planning Division
   Phone: (510) 981-7426
   Email: NKarimzadegan@berkeleyca.gov

4. **Project Sponsor's Name and Address:**
   Studio KDA
   1810 6th Street
   Berkeley, CA 94710

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

6. **Zoning:**
   Elmwood Commercial (C-E)

7. Project Location and Existing Conditions:

The approximately 0.15-acre (6,346 square-foot) project site (Assessor's Parcel Number [APN] 052-1568-009) is located in the City of Berkeley, Alameda County. The site is bounded by commercial uses and a City parking lot to the north, College Avenue to the east, commercial uses to the south, and residential uses to the west.

Regional vehicular access to the project site is provided by Interstate 80 (I-80) and Interstate 580 (I-580) via Ashby Avenue (State Route 13 [SR-13]). Local access is primarily via College Avenue via Ashby Avenue, both of which are designated as Major Streets[1] in the City's General Plan. Transit in the project vicinity includes the extensive bus transit service provided by Alameda-Contra Costa County (AC) Transit, including Line 851, which provides service along College Avenue; and Line 7, which provides service along Ashby Avenue. The closest bus stop is at Ashby Avenue and College Avenue, located 130 feet southeast of the site.

The eastern half of the project site is currently developed with a single-story commercial building, constructed circa 1900, which has remained vacant since March 2018. An accessory building is located along the northern project site boundary, and another small structure is located along the southern project site boundary. The remainder of the project site is undeveloped. Vegetation on the project site consists of ruderal grasses and shrubs, two trees (one of which is dead), and a street tree (*Ginko biloba*) located within the public right-of-way along College Avenue.

Figure 1-1 depicts the site's regional and local context, and Figure 1-2 depicts an aerial view of the project site.

8. Project Description:

The proposed project would include the demolition of all existing structures, the removal of the two existing trees on the project site, and the redevelopment of the project site with two new buildings, including a two-story mixed-use building (Buildings A) and a two-story residential building (Building B). The existing street tree on College Avenue would be protected in place. Building A would include 1,481 square feet of commercial space on the ground floor and 1,839 square feet of residential space on the upper floor consisting of two dwelling units. Building B would contain 2,968 square feet of residential space consisting of four dwelling units. Overall, the proposed project would develop the site with 1,481 square feet of commercial space designed for food service (i.e., café) and 4,807 square feet of residential space across six residential units. The proposed project would not include any natural gas infrastructure or usage.

Building A would be located on the eastern half of the project site, fronting College Avenue, and would maintain the existing uninterrupted neighborhood commercial street context of the surrounding area. Independent access to the two residential units at Building A would be provided along the north side of the project site and would be recessed from the street with an

[1] Major Streets serve the movement of automobiles, trucks, buses, pedestrians, and bicycles across the City, connecting to the regional transportation network, and to other jurisdictions.

awning to provide cover and bring attention to the residential entry for the upper Building A units and the Building B units.

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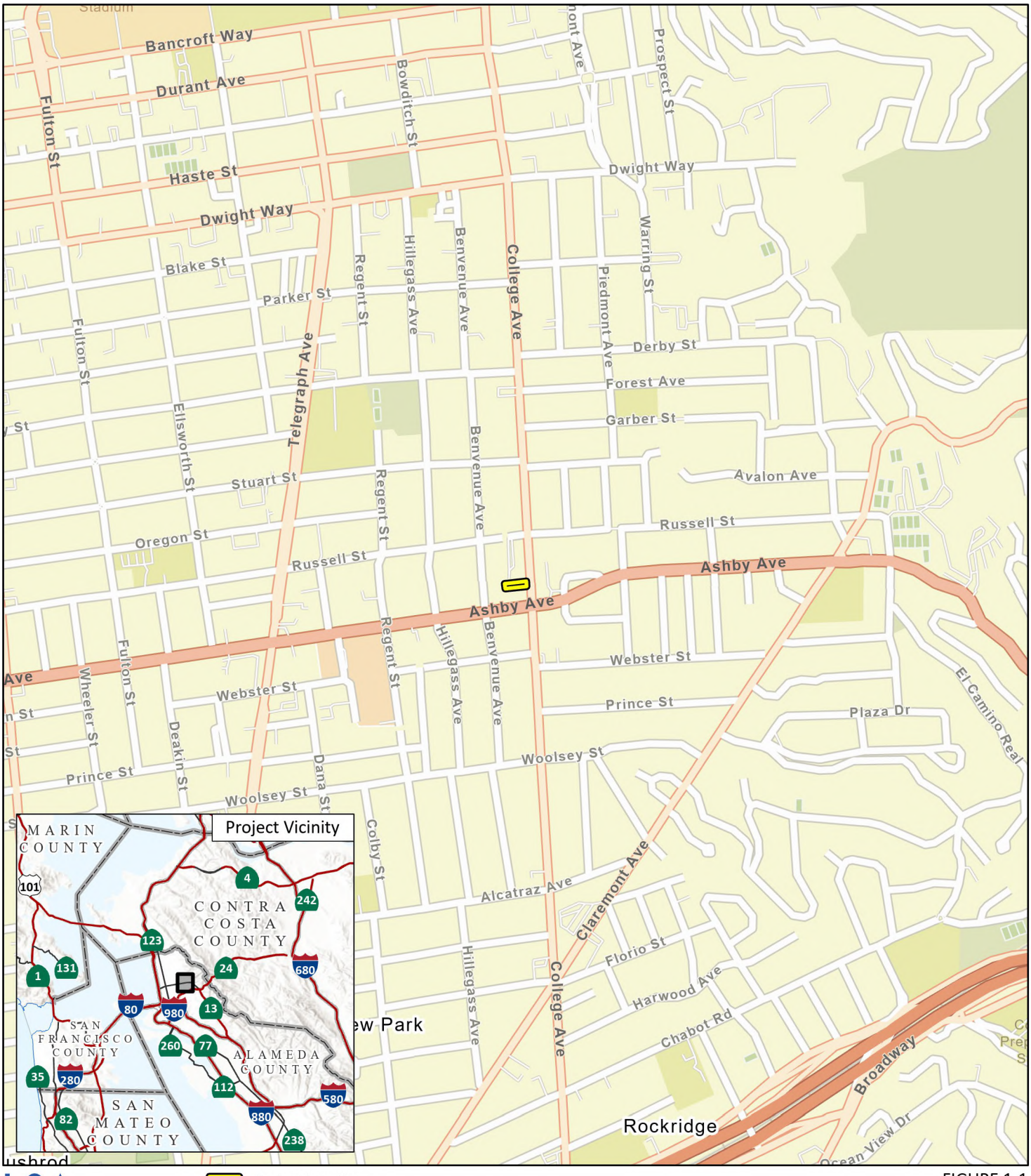

FIGURE 1-1

0 500 1000
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SOURCE: Esri (2024)

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2942 College Avenue Project

Project Location and Regional Vicinity

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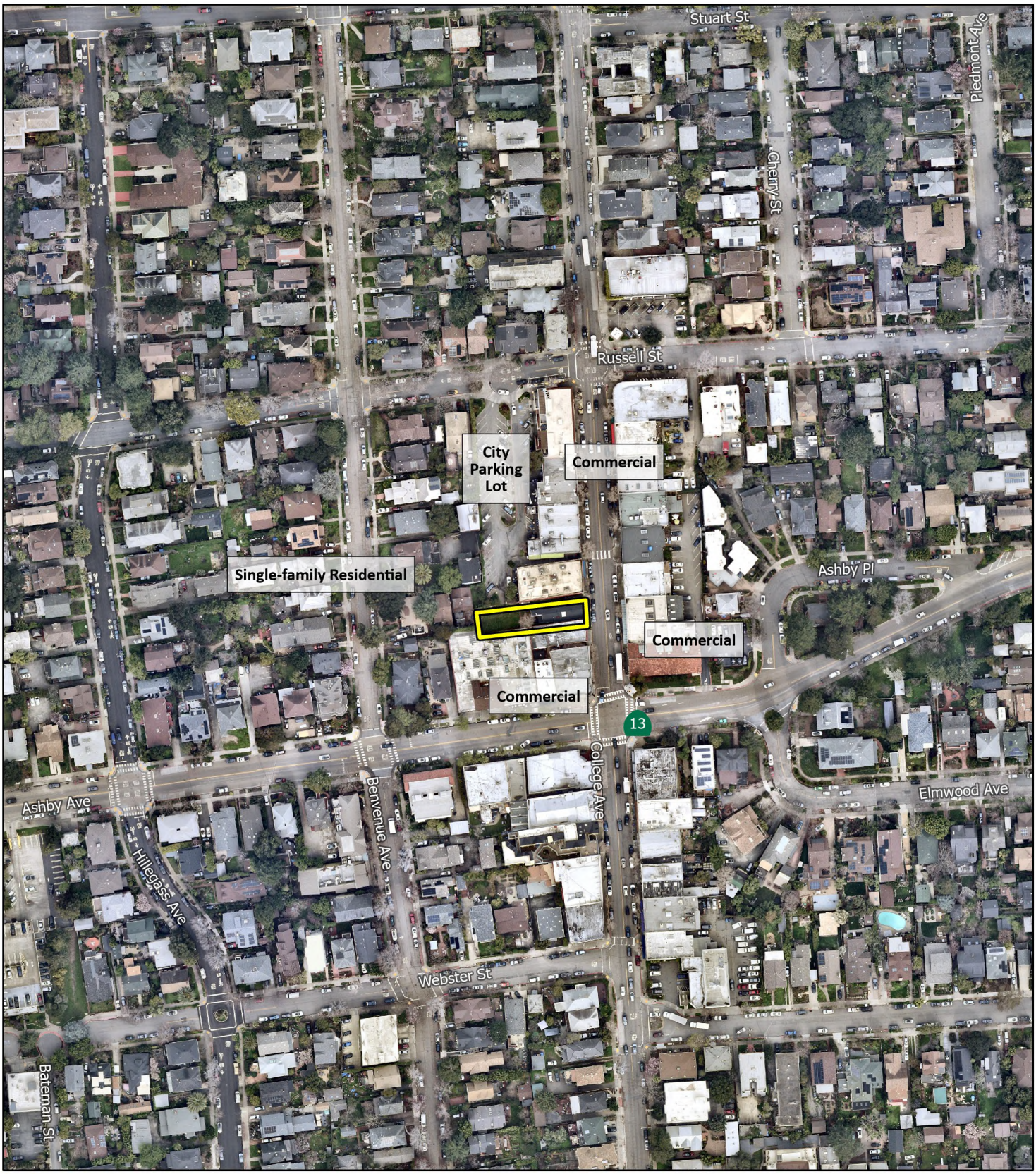

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Project Site

FIGURE 1-2

N

0 100 200
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SOURCE: Nearmap (2/2024)

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2942 College Avenue Project

Aerial Photograph of the Project Site and Surrounding Land Uses

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Building B would be located on the western half of the project site. The two proposed buildings would be separated by an approximately 17-foot-wide common courtyard area that would include a covered bike storage area containing two short-term and four long-term residential bicycle storage spaces. In addition, an approximately 16-foot-wide rear yard setback would provide a private landscaped space dedicated to the residential tenants. Overall, the proposed project would include 1,459 square feet of usable and landscaped open space.

Figure 1-3 shows the proposed site plan for the proposed project, Figure 1-4 shows the proposed floor plans, Figure 1-5 shows the proposed building sections, and Figure 1-6 provides the proposed landscape plan.

Grading and Construction. The existing commercial building on the site would be demolished to allow for site redevelopment. Demolition waste would be disposed of in compliance with the Waste Diversion and Universal Waste disposal requirements specified in BMC Chapter 19.37. Construction of the proposed project would be balanced on site, meaning the cut-and-fill (excavation and soil movement) process is managed to ensure that the amount of earth removed from one part of the site is balanced by the amount of earth needed to fill another area. As such, the proposed project would not require any import or export of cut or fill material. The maximum depth of excavation is expected to be 5 feet below ground surface (bgs). Construction of the proposed project would occur over an approximately 17-month period.

Discretionary Actions. The proposed project is subject to action by the City of Berkeley's Zoning Adjustments Board (ZAB). Current development standards in the C-E zoning district allow for a maximum development of 0.8 floor area ratio (FAR). Per Senate Bill (SB) 478, the maximum FAR for projects that have between 3 and 7 residential units is 1.0, provided the project meets other criteria (refer to Section 2.2.3 for additional discussion). The proposed project, which proposed six residential units and has 6,321 gross square feet, will be just under 1.0 FAR or 6,346 square feet maximum. As a result, it complies with relevant maximum FAR requirements. The project would require the following discretionary entitlements from the City of Berkeley, per the City of Berkeley Municipal Code (BMC):

- Administrative Use Permit under BMC Section 23.204.020 to establish a Food Service;
- Administrative Use Permit under BMC Section 23.310.030 for distilled spirits when incidental to food service;
- Use Permit under BMC Section 23.204.020 to establish a mixed-use building;
- Use Permit under BMC Section 23.204.020 to establish multifamily dwellings;
- Use Permit under BMC Section 23.204.030 for new floor area;
- Use Permit under BMC Section 23.204.080.B.2 to exceed the Food Service Establishment Numerical Limitation (25) in the C-E district; and
- Use Permit under BMC Section 23.326.070 to demolish a nonresidential building.

Development of the proposed project, if approved, would be subject to the City of Berkeley's standard Conditions of Approval (COA) consistent with the findings made by ZAB for approval of

the project and issuance of the requested Administrative Use Permit. Applicable COAs are identified in Table 1.A below and summarized in the appropriate topical sections. Each COA is titled pursuant to the subject area it addresses.

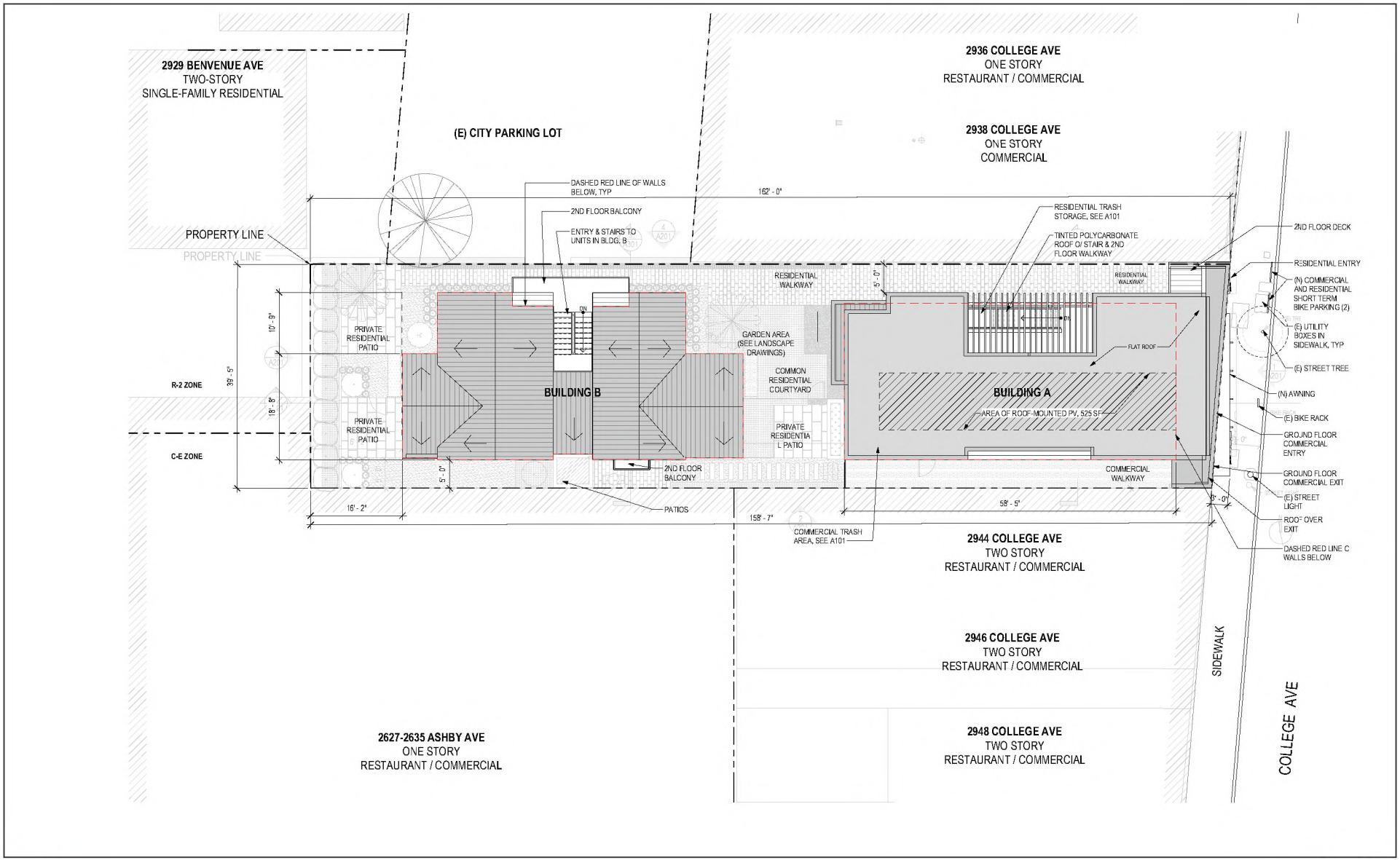

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FIGURE 1-3

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SOURCE: Studio KDA

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2942 College Avenue Project

Proposed Site Plan

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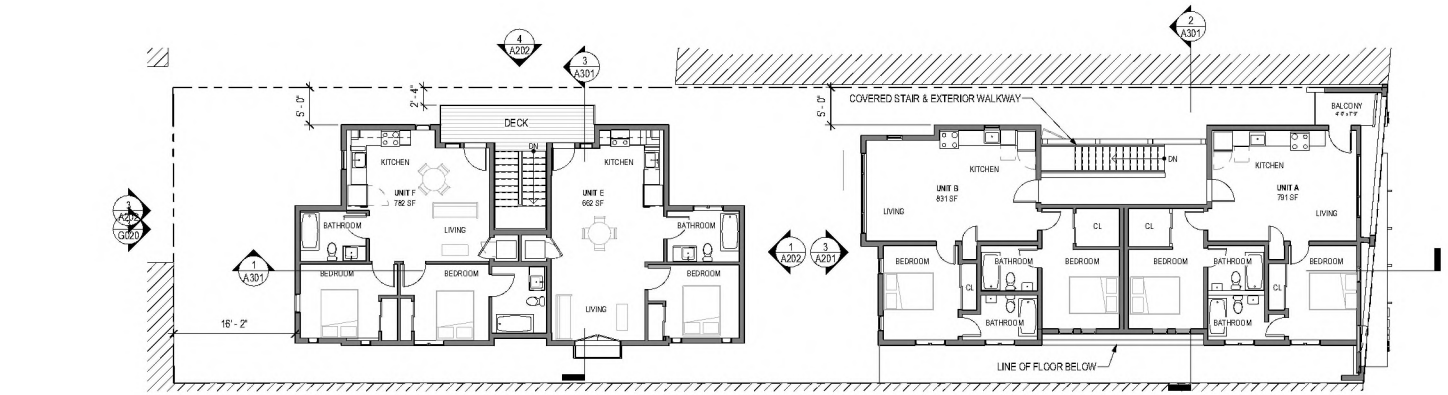
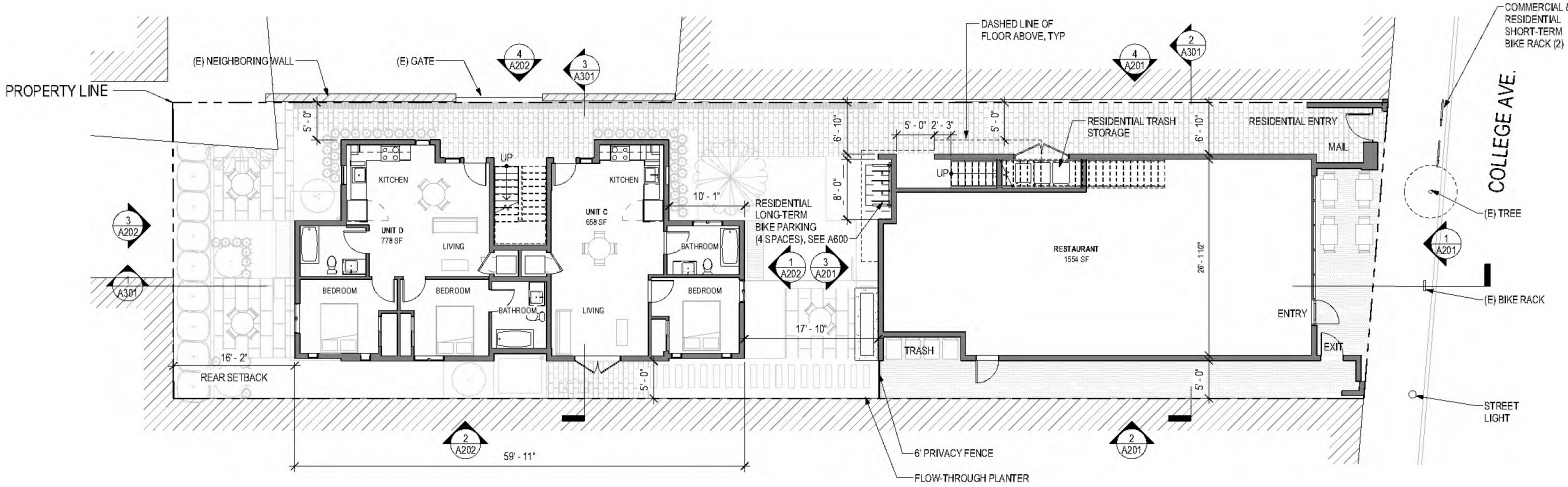


2 SECOND FLOOR
1/8" = 1'-0"



1 GROUND FLOOR
1/8" = 1'-0"

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FIGURE 1-4

0 16 32
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SOURCE: Studio KDA

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2942 College Avenue Project

Proposed Floor Plans

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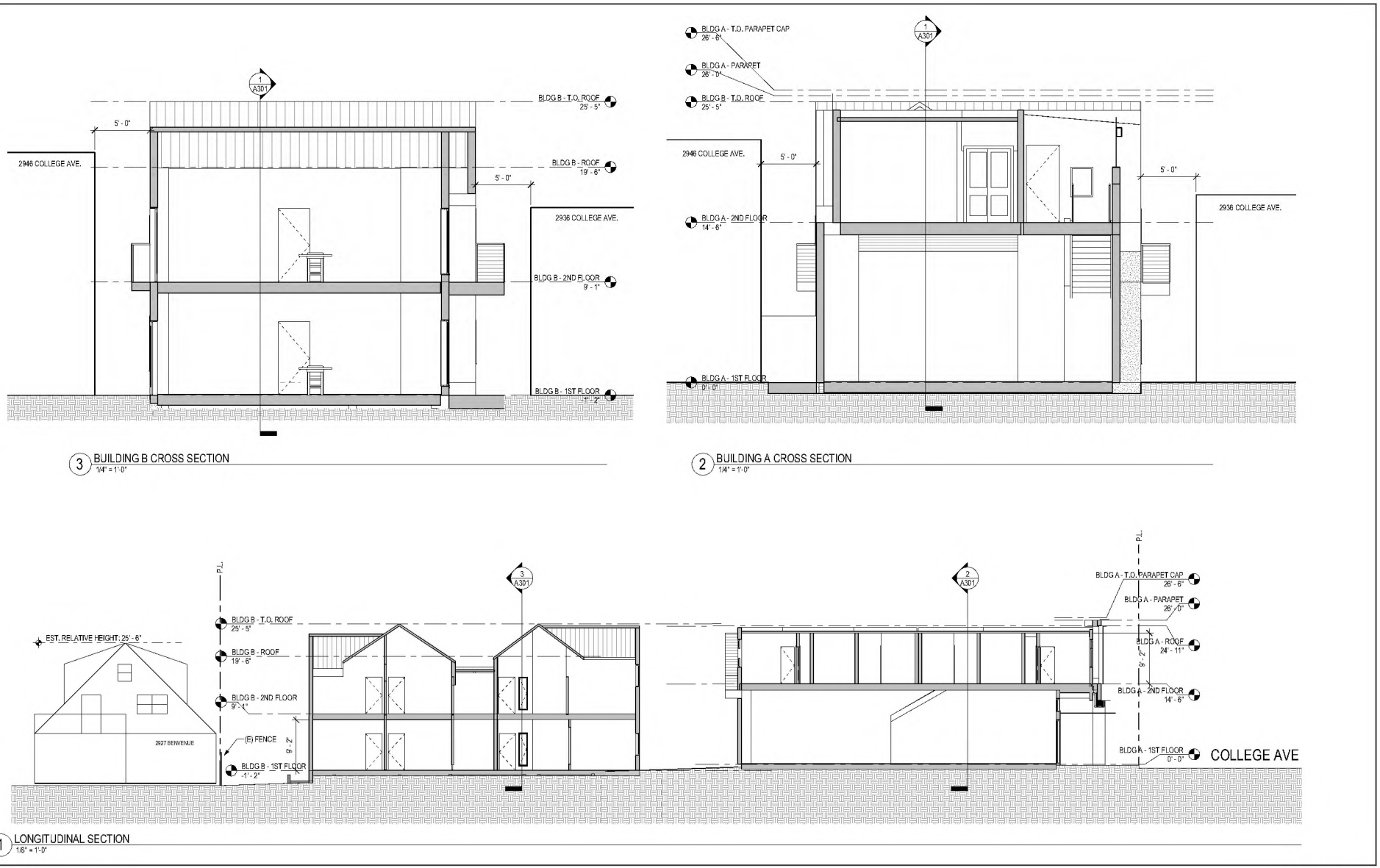

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FIGURE 1-5

0 14 28

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SOURCE: Studio KDA

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2942 College Avenue Project

Proposed Building Sections

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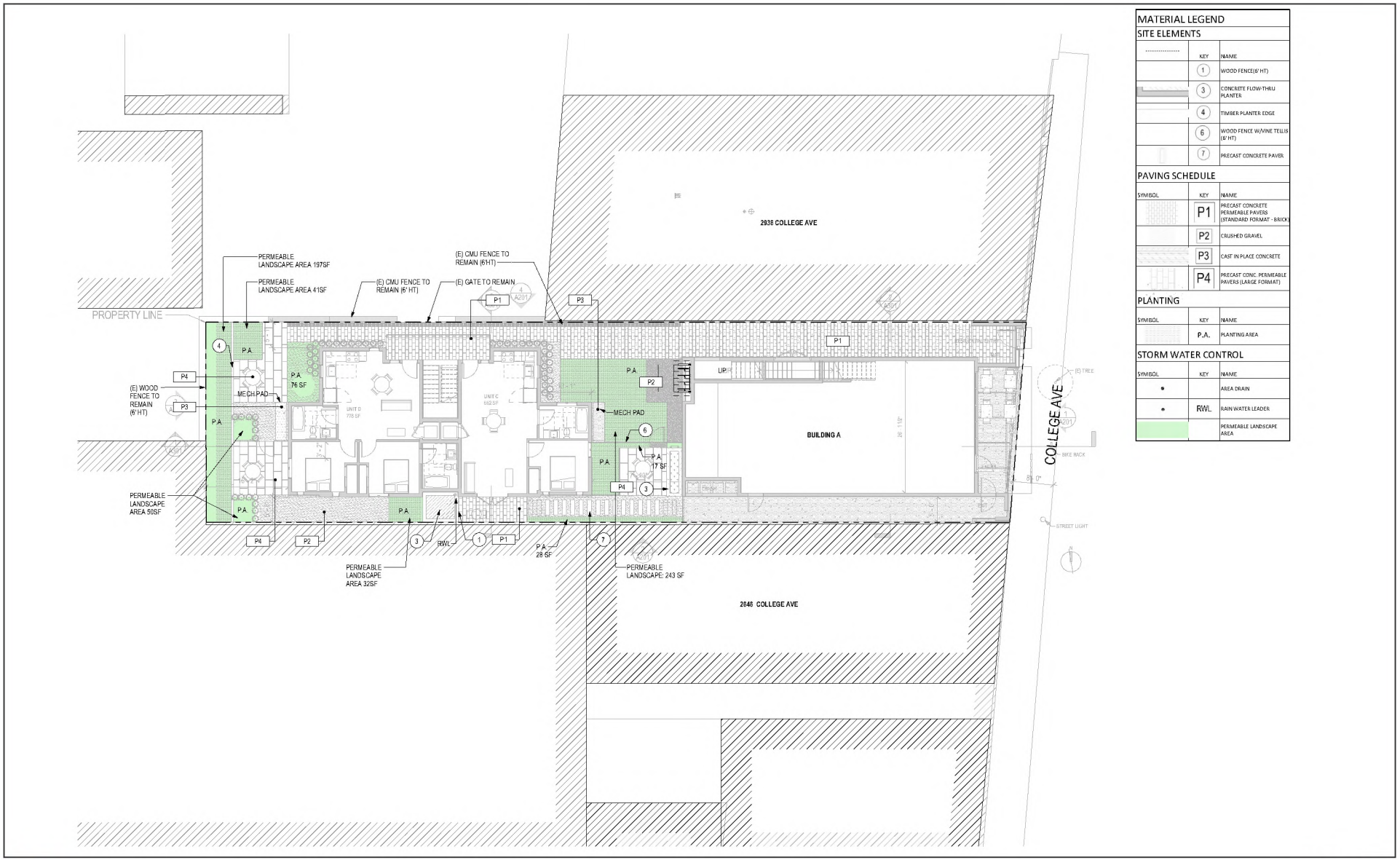

MATERIAL LEGEND

SITE ELEMENTS

KEY	NAME
1	WOOD FENCE(6' HT)
3	CONCRETE FLOW-THRU PLANTER
4	TIMBER PLANTER EDGE
6	WOOD FENCE W/VINE TELLIS (6' HT)
7	PRECAST CONCRETE PAVER

PAVING SCHEDULE

SYMBOL	KEY	NAME
	P1	PRECAST CONCRETE PERMEABLE PAVERS (STANDARD FORMAT - BRICK)
	P2	CRUSHED GRAVEL
	P3	CAST IN PLACE CONCRETE
	P4	PRECAST CONC. PERMEABLE PAVERS (LARGE FORMAT)

PLANTING

SYMBOL	KEY	NAME
	P.A.	PLANTING AREA

STORM WATER CONTROL

SYMBOL	KEY	NAME
•		AREA DRAIN
•	RWL	RAIN WATER LEADER
		PERMEABLE LANDSCAPE AREA

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FIGURE 1-6

0 16 32

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SOURCE: Studio KDA

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2942 College Avenue Project

Proposed Landscape Plan

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Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
Aesthetics	**Exterior Lighting.** All exterior lighting shall be energy efficient where feasible; and shielded and directed downward and away from property lines to prevent excessive glare beyond the subject property.
Air Quality	**Public Works - Implement BAAQMD-Recommended Measures During Construction**. For all proposed projects, BAAQMD recommends implementing all the Basic Construction Mitigation Measures, listed below to meet the best management practices threshold for fugitive dust: A. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. B. All haul trucks transporting soil, sand, or other loose material off site shall be covered. C. All visible mud or dirt tracked-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. D. All vehicle speeds on unpaved roads shall be limited to 15 mph. E. 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. F. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. G. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. H. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.
	Air Quality - Diesel Particulate Matter Controls During Construction. All off-road construction equipment used for projects with construction lasting more than 2 months shall comply with one of the following measures: A. The project applicant shall prepare a health risk assessment that demonstrates the project's on-site emissions of diesel particulate matter during construction will not exceed health risk screening criteria after a screening-level health risk assessment is conducted in accordance with current guidance from BAAQMD and Office of Environmental Health Hazard Assessment (OEHHA). The health risk assessment shall be submitted to the Land Use Planning Division for review and approval prior to the issuance of building permits; or B. All construction equipment shall be equipped with Tier 2 or higher engines and the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by the California Air Resources Board (CARB). The equipment shall be properly maintained and tuned in accordance with manufacturer specifications. In addition, a Construction Emissions Minimization Plan (Emissions Plan) shall be prepared that includes the following: • An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date. • A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract. The Emissions Plan shall be submitted to the Public Works Department for review and approval prior to the issuance of building permits.
Biological Resources	**Avoid Disturbance of Nesting Birds.** Initial site disturbance activities, including vegetation and concrete removal, shall be prohibited during the general avian nesting season (February 1 to August 31), if feasible. If nesting season avoidance is not feasible, the applicant 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 the California Fish and Game Code, nesting bird surveys shall be performed not more than 14 days prior to scheduled vegetation and concrete removal. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines 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. Nesting bird surveys are not required for construction activities occurring between August 31 and January 31.
Cultural Resources	**Archaeological Resources.** (Ongoing throughout demolition, grading, and/or construction). Pursuant to CEQA Guidelines section 15064.5(f), "provisions for historical or unique archeological resources accidentally discovered during construction" should be instituted. Therefore: A. In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist, historian or paleontologist to assess the significance of the find. B. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified professional would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Berkeley. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by the qualified professional according to current professional standards. C. In considering any suggested measure proposed by the qualified professional, the project applicant shall determine whether avoidance is necessary or feasible in light of factors such as the uniqueness of the find, project design, costs, and other considerations.

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	D. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation measures for cultural resources is carried out. E. If significant materials are recovered, the qualified professional shall prepare a report on the findings for submittal to the Northwest Information Center.
	Human Remains. (Ongoing throughout demolition, grading, and/or construction). In the event that human skeletal remains are uncovered at the project site during ground-disturbing activities, all work shall immediately halt, and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.
Geology and Soils	**Paleontological Resources.** (Ongoing throughout demolition, grading, and/or construction). In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards [SVP 1995,1996]). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.
Greenhouse Gas Emissions	**Construction and Demolition Diversion.** Applicant shall submit a Construction Waste Management Plan that meets the requirements of BMC Chapter 19.37 including 100 percent diversion of asphalt, concrete, excavated soil and land-clearing debris and a minimum of 65 percent diversion of other nonhazardous construction and demolition waste.
	Low-Carbon Concrete. The project shall verify compliance with the Berkeley Green Code (BMC Chapter 19.37) including use of concrete mix design with a cement reduction of at least 25 percent.
Hazards and Hazardous Materials	**Toxics.** The applicant shall contact the Toxics Management Division (TMD) at 1947 Center Street or (510) 981-7470 to determine which of the following documents are required and timing for their submittal: A. **Phase I and Phase II Environmental Site Assessment (ESA) (per ASTM 1527).** A recent Phase I ESA (less than 2 years old) shall be submitted to the Toxics Management Division for developments for: all new commercial, industrial and mixed-use developments and all improvement projects that require work 5 or more feet below grade, and all new residential buildings with more than four dwelling units located in the Environmental Management Area (or EMA). The EMA can be viewed at: City of Berkeley Community GIS Portal (arcgis.com)

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	B. Depending on the findings in the Phase I, a Phase II or additional investigation may be necessary. Any available soils and groundwater analytical data available for projects listed in this section must also be submitted to TMD. C. **Environmental Site Clearance.** The applicant shall provide environmental screening clearance from either the San Francisco Bay Regional Water Quality Control Board (RWQCB), Department of Toxic Substances Control (DTSC), or the Alameda County Department of Environmental Health's Local Oversight Program (LOP). Clearance from one of these regulatory agencies will ensure that the property meets development investigation and cleanup standards for the specific use proposed on the property. Environmental screening clearance shall be submitted to the City of Berkeley's Toxics Management Division prior to issuance of any building permits. D. **Soil and Groundwater Management Plan**. A site-specific Soil and Groundwater Management Plan (SGMP) shall be submitted to Toxics Management Division (TMD) for all non-residential projects, and residential or mixed-use projects with more than four dwelling units, that: (1) are in the Environmental Management Area (EMA), as shown on the most recent City of Berkeley EMA map, and (2) propose any excavations deeper than 5 feet below grade or if significant soils removal is anticipated. The SGMP shall be submitted to the TMD with the project's building permit application and shall be approved by TMD prior to issuance of the building permit. The SGMP shall comply with the hazardous materials and waste management standards required by BMC Section 15.12.100, the stormwater pollution prevention requirements of San Francisco Bay Regional Water Quality Control Board's Order No. R2-2009-0074, California hazardous waste generator regulations (Title 22 California Code of Regulations (CCR) 66260 et seq.), and the East Bay Municipal Utility District's Ordinance 311, and shall include the following: i. procedures for soil and groundwater management including identification of pollutants and disposal methods; ii. procedures to manage odors, dust and other potential nuisance conditions expected during development; iii. notification to TMD within 24 hours of the discovery of any previously undiscovered contamination; and iv. the name and phone number of the individual responsible for implementing the SGMP and who will respond to community questions or complaints. TMD may require additional information or impose additional conditions as deemed necessary to protect human health and the environment. All requirements of the approved SGMP shall be deemed conditions of approval. E. **Demolitions & Renovations – Building Materials Survey.** A hazardous materials survey for building materials and plans on hazardous materials and hazardous waste removal and disposal is required and must be prepared by qualified professionals, and submitted to the Toxics Management Division (TMD) prior to issuance of the building permit.

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	i. The survey shall include the identification of all materials to be disturbed for lead-based paints, PCB containing equipment and caulking, hydraulic fluids, refrigerants, treated wood, and mercury containing devices (including fluorescent light bulbs and mercury switches), asbestos and other hazardous materials and chemicals. ii. If asbestos is identified, Bay Area Air Quality Management District Regulation 11-2-401.3 a notification must be made and the J number must be made available to the City of Berkeley Permit Service Center. Contractors must follow state regulations where there is asbestos-related work involving 100 square feet or more of asbestos containing material (8 Cal. Code Regs. §1529, §341.6 et seq.) iii. The report to the TMD shall include, in addition to the survey, plans on hazardous materials and hazardous waste removal and disposal that comply with State and Federal codes including California Code of Regulations (CCR) 66260 et seq. iv. Documentation evidencing disposal of hazardous waste in compliance with the survey shall be submitted to TMD within 30 days of the completion of the demolition. Please note, the PCB Screening Form required by Public Works, Engineering, is a separate requirement and does not address the PCB identification requirement of the Toxics Management Division. F. **Hazardous Materials Business Plan.** A Hazardous Materials Business Plan (HMBP) in compliance with BMC Section 15.12.040 and California Health & Safety Code, Chapter 6.95 Div. 20, shall be submitted to the Toxics Management Division through the California Environmental Reporting System: http://cers.calepa.ca.gov/ for chemicals used or stored on site during construction that exceed reporting thresholds. The reporting is required if your facility stores or handles hazardous materials in aggregate quantities equal to or greater than 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet of compressed gases, or generates any quantity of hazardous waste. This includes welding gases, emergency generator fuel, paints, etc. Additionally, the business occupant must submit an HMBP within 30 days of starting operations. G. **Petroleum Storage.** A Spill Prevention, Control, and Countermeasure (SPCC) Plan is required to be prepared and implemented for facilities with any one of the following: i. aggregate aboveground petroleum storage capacities of 1,320 gallons or more stored in aboveground storage containers, tanks, oil-filled equipment, or ii. one or more tank(s) in an underground area (TIUGA) with petroleum storage capacities of 55 gallons or greater. More information on TIUGAs can be found here: https://osfm.fire.ca.gov/divisions/pipeline-safety-and-cupa/certified-unified-program-agency-cupa/aboveground-petroleum-storage-act/tank-in-an-underground-area-tiuga/ The SPCC plan must be prepared prior to beginning operations and you must submit facility information to Toxics Management Division (TMD)

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	through the California Environmental Reporting System: http://cers.calepa.ca.gov/. The SPCC plan will be reviewed during the site inspection and shall not be submitted in CERS or to the TMD.
Hydrology and Water Quality	**Stormwater Requirements.**The applicant shall demonstrate compliance with the requirements of the City's National Pollution Discharge Elimination System (NPDES) permit as described in BMC Section 17.20. The following conditions apply:The project plans shall identify and show site-specific Best Management Practices (BMPs) appropriate to activities conducted on-site to limit to the maximum extent practicable the discharge of pollutants to the City's storm drainage system, regardless of season or weather conditions. B. Trash enclosures and/or recycling area(s) shall be covered; no other area shall drain onto this area. Drains in any wash or process area shall not discharge to the storm drain system; these drains should connect to the sanitary sewer. Applicant shall contact the City of Berkeley and EBMUD for specific connection and discharge requirements. Discharges to the sanitary sewer are subject to the review, approval and conditions of the City of Berkeley and EBMUD. C. Landscaping shall be designed with efficient irrigation to reduce runoff, promote surface infiltration and minimize the use of fertilizers and pesticides that contribute to stormwater pollution. Where feasible, landscaping should be designed and operated to treat runoff. When and where possible, xeriscape and drought tolerant plants shall be incorporated into new development plans. D. Design, location and maintenance requirements and schedules for any stormwater quality treatment structural controls shall be submitted to the Department of Public Works for review with respect to reasonable adequacy of the controls. The review does not relieve the property owner of the responsibility for complying with BMC Chapter 17.20 and future revisions to the City's overall stormwater quality ordinances. This review shall be conducted prior to the issuance of a Building Permit. E. All paved outdoor storage areas must be designed to reduce/limit the potential for runoff to contact pollutants. F. All on-site storm drain inlets/catch basins must be cleaned at least once a year immediately prior to the rainy season. The property owner shall be responsible for all costs associated with proper operation and maintenance of all storm drainage facilities (pipelines, inlets, catch basins, outlets, etc.) associated with the project, unless the City accepts such facilities by Council action. Additional cleaning may be required by City of Berkeley Public Works Engineering Dept. G. All on-site storm drain inlets must be labeled "No Dumping – Drains to Bay" or equivalent using methods approved by the City. H. Most washing and/or steam cleaning must be done at an appropriately equipped facility that drains to the sanitary sewer. Any outdoor washing or pressure washing must be managed in such a way that there is no discharge or soaps or other pollutants to the storm drain. Sanitary connections are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge. I. All loading areas must be designated to minimize "run-on" or runoff from the area. Accumulated waste water that may contribute to the pollution of

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	stormwater must be drained to the sanitary sewer or intercepted and pretreated prior to discharge to the storm drain system. The property owner shall ensure that BMPs are implemented to prevent potential stormwater pollution. These BMPs shall include, but are not limited to, a regular program of sweeping, litter control and spill cleanup. J. Restaurants, where deemed appropriate, must be designed with a contained area for cleaning mats, equipment and containers. This contained wash area shall be covered or designed to prevent run-on or run-off from the area. The area shall not discharge to the storm drains; wash waters should drain to the sanitary sewer, or collected for ultimate disposal to the sanitary sewer. Employees shall be instructed and signs posted indicating that all washing activities shall be conducted in this area. Sanitary connections are subject to the review, approval and conditions of the waste water treatment plant receiving the discharge. K. Sidewalks and parking lots shall be swept regularly to prevent the accumulation of litter and debris. If pressure washed, debris must be trapped and collected to prevent entry to the storm drain system. If any cleaning agent or degreaser is used, wash water shall not discharge to the storm drains; wash waters should be collected and discharged to the sanitary sewer. Discharges to the sanitary sewer are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge. The applicant is responsible for ensuring that all contractors and sub-contractors are aware of and implement all stormwater quality control measures. Failure to comply with the approved construction BMPs shall result in the issuance of correction notices, citations, or a project stop work order.
	Public Works. All piles of debris, soil, sand, or other loose materials shall be covered at night and during rainy weather with plastic at least one-eighth millimeter thick and secured to the ground.
	Public Works. The applicant shall ensure that all excavation takes into account surface and subsurface waters and underground streams so as not to adversely affect adjacent properties and rights-of-way.
	Public Works. The project sponsor shall maintain sandbags or other devices around the site perimeter during the rainy season to prevent on-site soils from being washed off-site and into the storm drain system. The project sponsor shall comply with all City ordinances regarding construction and grading.
	Public Works. Prior to any excavation, grading, clearing, or other activities involving soil disturbance during the rainy season the applicant shall obtain approval of an erosion prevention plan by the Building and Safety Division and the Public Works Department. The applicant shall be responsible for following these and any other measures required by the Building and Safety Division and the Public Works Department.
Noise	**Construction Noise Reduction Program**.The applicant shall develop a site-specific noise reduction program prepared by a qualified acoustical consultant to reduce construction noise impacts to the maximum extent feasible, subject to review and approval of the Zoning Officer. The noise reduction program shall include the time limits for construction listed above, as measures needed to ensure that construction complies with BMC Section 13.40.070. The noise reduction program should include, but shall not be limited to, the following available controls to reduce construction noise levels as low as practical:

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	• Construction equipment should be well maintained and used judiciously to be as quiet as practical. • Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment. • Utilize "quiet" models of air compressors and other stationary noise sources where technology exists. Select hydraulically or electrically powered equipment and avoid pneumatically powered equipment where feasible. • Locate stationary noise-generating equipment as far as possible from sensitive receptors when adjoining construction sites. Construct temporary noise barriers or partial enclosures to acoustically shield such equipment where feasible. • Prohibit unnecessary idling of internal combustion engines. • If impact pile driving is required, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile. • Construct solid plywood fences around construction sites adjacent to operational business, residences or other noise-sensitive land uses where the noise control plan analysis determines that a barrier would be effective at reducing noise. • Erect temporary noise control blanket barriers, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected. • Route construction related traffic along major roadways and away from sensitive receptors where feasible.
	Construction Noise Management - Public Notice Required.At least two weeks prior to initiating any construction activities at the site, the applicant shall provide notice to businesses and residents within 500 feet of the project site. This notice shall at a minimum provide the following: (1) project description, (2) description of construction activities during extended work hours and reason for extended hours, (3) daily construction schedule (i.e., time of day) and expected duration (number of months), (4) the name and phone number of the Project Liaison for the project that is responsible for responding to any local complaints, and (5) that construction work is about to commence. The liaison would determine the cause of all construction-related complaints (e.g., starting too early, bad muffler, worker parking, etc.) and institute reasonable measures to correct the problem. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval.
	Construction Phases.The applicant shall provide the Zoning Officer with a schedule of major construction phases with start dates and expected duration, a description of the activities and anticipated noise levels of each phase, and the name(s) and phone number(s) of the individual(s) directly supervising each phase. The Zoning Officer or his/her designee shall have the authority to require an onsite meeting with these individuals as necessary to ensure compliance with these conditions. The applicant shall notify the Zoning Officer of any changes to this schedule as soon as possible.
	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 4:00 p.m. on Saturday. No construction-related activity shall occur on Sunday or any Federal Holiday.
	Construction Hours- Exceptions. It is recognized that certain construction activities, such as the placement of concrete, must be performed in a continuous manner and may require an extension of these work hours. Prior to initiating any activity that might require a longer period, the developer must notify the Zoning Officer and request an exception for a finite

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	period of time. If the Zoning Officer approves the request, then two weeks prior to the expanded schedule, the developer shall notify businesses and residents within 500 feet of the project site describing the expanded construction hours. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval. The project shall not be allowed more than 15 extended working days.
	Project Construction Website.The applicant shall establish a project construction website with the following information clearly accessible and updated monthly or more frequently as changes warrant: • Contact information (i.e., "hotline" phone number, and email address) for the project construction manager. • Calendar and schedule of daily/weekly/monthly construction activities. • The final Conditions of Approval, Mitigation Monitoring and Reporting Program, Transportation Construction Plan, Construction Noise Reduction Program, and any other reports or programs related to construction noise, air quality, and traffic.
	Damage Due to Construction Vibration.The project applicant shall submit screening level analysis prior to, or concurrent with demolition building permit. If a screening level analysis shows that the project has the potential to result in damage to structures, a structural engineer or other appropriate professional shall be retained to prepare a vibration impact assessment (assessment). The assessment shall take into account project specific information such as the composition of the structures, location of the various types of equipment used during each phase of the project, as well as the soil characteristics in the project area, in order to determine whether project construction may cause damage to any of the structures identified as potentially impacted in the screening level analysis. If the assessment finds that the project may cause damage to nearby structures, the structural engineer or other appropriate professional shall recommend design means and methods of construction that to avoid the potential damage, if feasible. The assessment and its recommendations shall be reviewed and approved by the Building and Safety Division and the Zoning Officer. If there are no feasible design means or methods to eliminate the potential for damage, the structural engineer or other appropriate professional shall undertake an existing conditions study (study) of any structures (or, in case of large buildings, of the portions of the structures) that may experience damage. This study shall: • Establish the baseline condition of these structures, including, but not limited to, the location and extent of any visible cracks or spalls; and • Include written descriptions and photographs.
Tribal Cultural Resources	**COA: Archeological Resources** and **COA: Human Remains**.
	Halt Work/Unanticipated Discovery of Tribal Cultural Resources. In the event that cultural resources of Native American origin are identified during construction, all work within 50 feet of the discovery shall be redirected. The project applicant and project construction contractor shall notify the City Planning Department within 24 hours. The City will again contact any tribes who have requested consultation under AB 52, as well as contact a qualified archaeologist, to evaluate the resources and situation and provide recommendations. If it is determined that 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. If the resource cannot be avoided, additional measures to avoid or reduce impacts to the resource and to address tribal concerns may be required.
Utilities and Service Systems	**Water Efficient Landscaping** *(prior to the issuance of any building [construction] permit).* Landscaping, totaling 500 square feet of more of new landscaping or 2,500 square feet or more of renovated irrigated area, shall comply with the State's Model Water Efficient Landscape Ordinance (MWELO). MWELO-compliant landscape documentation including a

Table 1.A: Applicable City Conditions of Approval

Issue Area	City Conditions of Approval (COAs)
	planting, grading, and irrigation plan shall be included in site plans. Water budget calculations are also required for landscapes of 2,500 square feet or more and shall be included in site plans. The reference evapotranspiration rate for Berkeley is 41.8
	Recycling and Organics Collection. Applicant shall provide recycling and organics collection areas for occupants, clearly marked on plans, which comply with the Alameda County Organics Reduction and Recycling Ordinance (2021-02). Contact the Zero Waste Division's Recycling Program Manager, Julia A. Heath, at jheath@berkeleyca.gov.

Source: City of Berkeley (2025)

9. Surrounding Land Uses and Setting:

The project site is located in the Elmwood neighborhood within the City, which is characterized by a mix of commercial and residential uses. Land uses within the vicinity of the project site include commercial uses to the north, south, and east and single-family residential uses to the west. Additional single-family residential uses are located further north, east, and south. Willard Park and Bateman Mall Park are located approximately 0.25 mile northwest and 0.27 mile southwest of the project site, respectively. The Alta Bates Summit Medical Center (hospital) is located approximately 0.3 mile southeast of the project site.

Figure 1-2 depicts an aerial view of the site and immediate surrounding land uses.

10. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):

San Francisco Regional Water Quality Control Board (RWQCB) and East Bay Municipal Utility District (EBMUD)

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

A request form describing the proposed project and map depicting the project site was sent to the Native American Heritage Commission (NAHC) in West Sacramento requesting a list of tribes eligible to consult with the City, pursuant to Public Resources Code Section 21080.3.1, on June 14, 2024. On July 12, 2024, the NAHC responded in a letter with a list of tribal contacts. The City sent letters to these individuals on September 27, 2024, notifying them of their opportunity to consult for this project. As summary of tribal consultation efforts is provided in Section 3.12, Tribal Cultural Resources, of this IS/MND.

2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project without implementation of mitigation. As feasible mitigation would be implemented to reduce potential impacts to less than significant, there are no "Potentially Significant Impacts", as indicated by the checklist in Section 3.0.

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

2.1 DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

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

03/18/2025

Niloufar Karimzadegan, Senior Planner — Date

2.2 NO IMPACT OR NOT APPLICABLE ENVIRONMENTAL TOPICS

The proposed project would have no impact on the following environmental topics, and as a result they are not discussed further in Chapter 3.0, Environmental Checklist of this Initial Study: Aesthetics, Agriculture and Forestry Resources, Land Use and Planning, Mineral Resources, Public Services, Recreation, and Wildfire. This section briefly describes why these topics would have no impact or are not applicable to the proposed project.

2.2.1 Aesthetics

Public Resources Code (PRC) Section 21099(d) provides that, among other items, "aesthetics… impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." Accordingly, aesthetics is no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

1. The project is residential, mixed-use residential, or an employment center;

2. The project is on an infill site;[2] and

3. The project is in a transit priority area.[3]

The proposed project would result in the development of a two-story mixed-use building containing 1,481 square feet of commercial space and 1,839 square feet of residential space and a two-story residential building containing 2,968 square feet of residential space on an infill site, for a total of six residential units. Transit in the project vicinity includes the extensive bus transit service provided by Alameda-Contra Costa County (AC) Transit. The project site is located within a transit priority area because it is within 0.5 mile of several intersecting major bus routes, including Lines 6, 7, 79, 800, 851, and E. Line 6 provides bus service from Downtown Oakland to Downtown Berkeley, Line 7 provides bus service from the El Cerrito del Norte Bay Area Rapid Transit (BART) Transit Center to Downtown Berkeley, Line 79 provides bus service from the El Cerrito Plaza BART Transit Center to the Rockridge BART Transit Center, Line 800 provides bus service from the Richmond BART Transit Center to Market Street/Van Ness Avenue, Line 851 provides bus service from Downtown Berkeley to the Fruitvale BART Transit Center, and Line E provides bus service from Caldecott Lane/Tunnel

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

[3] Public Resources Code Section 21099(a) defines a "transit priority area" as an area within 0.5 miles of an existing or planned major transit stop. A "major transit stop" is defined in Section 21064.3 of the California Public Resources Code as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency or service interval of 15 minutes or less during the morning and afternoon peak commute periods.

Road to the Salesforce Transit Center in San Francisco.[4] These lines provide service at a frequency of less than 15 minutes during the morning and afternoon peak commute periods. In addition, as shown on the Household VMT Per Capita and Home-Work VMT Per Worker maps in the City of Berkeley Transportation VMT Criteria and Thresholds,[5] the project site is located within a Transit Priority Area (TPA).

Because the proposed project meets each of the above three criteria, this Initial Study does not consider aesthetics in determining the significance of project impacts under the California Environmental Quality Act (CEQA). Project elements that relate to changes to aesthetic conditions at the site and vicinity, such as proposed building heights, architecture, effects of new light and glare, etc., will be considered as part of the planning approval process, including through design review. In addition, the proposed project would be required to adhere to City *COA: Exterior Lighting*, below, which requires all exterior lighting to be energy efficient where feasible; and shielded and directed downward and away from property lines to prevent excessive glare beyond the subject property. Therefore, the proposed project would have no impact, either individually or cumulatively, on aesthetics.

> ***COA: Exterior Lighting.*** All exterior lighting shall be energy efficient where feasible; and shielded and directed downward and away from property lines to prevent excessive glare beyond the subject property.

2.2.2 Agriculture and Forestry Resources

The project site and vicinity are located within an urban area of the City of Berkeley that does not contain prime farmland, unique farmland, or farmland of Statewide importance;[6] forest land; or land under a Williamson Act contract.[7] In addition, the area is not zoned for any agricultural uses. Therefore, the proposed project would have no impact, either individually or cumulatively, on agricultural or forest resources.

2.2.3 Land Use and Planning

The project site is located in an urbanized area of the City Berkeley and bounded by commercial uses and a City parking lot to the north, College Avenue to the east, commercial uses to the south, and residential uses to the west. Redevelopment of the project site with the proposed uses would represent a general continuation of the type, scale, and intensity of development within the project vicinity. In addition, the proposed project would not include any modifications to the existing roadways in the vicinity of the project site. Therefore, the proposed project would not physically divide an established community.

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4 Alameda-Contra Costa County Transit. 2024. *Maps & Schedules.* Website: https://www.actransit.org/maps-schedules (accessed June 10, 2024).

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

6 California Department of Conservation. 2022. California Important Farmland Finder (map). Website: maps.conservation.ca.gov/dlrp/ciff (accessed June 10, 2024).

7 California Department of Conservation. 2023. *California Williamson Act Enrollment Finder*. Website: https://maps.conservation.ca.gov/dlrp/WilliamsonAct/ (accessed June 10, 2024).

In addition, the proposed project would be consistent with applicable General Plan policies and the Neighborhood Commercial General Plan land use designation for the project site. Development standards for the C-E zoning district are specified in the City of Berkeley Municipal Code (BMC). For mixed-use development, there is a maximum FAR of 1.0 for corner lots and 0.8 for all other lots and a maximum building height of 28 feet (two stories). The proposed project would result in the development of a two-story mixed-use building containing 1,481 square feet of commercial space and 1,839 square feet of residential space and a two-story residential building containing 2,968 square feet of residential space on the project site. The proposed project would result in a FAR of approximately 0.99 and would not exceed 28 feet in height. Although the proposed FAR is greater than the allowable FAR of 0.8, the proposed FAR is consistent with Senate Bill (SB) 478 (codified in Government Code Section 65913.11), which prohibits a FAR less than 1.0 on projects proposing 3 to 7 residential units which meet the criteria provided in SB 478, including being located on a legal parcel in an urbanized area, not being located within a single-family residential done, and not being located in a historic district. As the proposed project is consistent with the criteria provided in SB 478, the proposed FAR of 0.99 is allowed. Pursuant to the BMC, the project sponsor is requesting the following permits:

- Administrative Use Permit under BMC Section 23.204.020 to establish a Food Service;
- Administrative Use Permit under BMC Section 23.310.030 for distilled spirits when incidental to food service;
- Use Permit under BMC Section 23.204.020 to establish a mixed-use building;
- Use Permit under BMC Section 23.204.020 to establish multifamily dwellings;
- Use Permit under BMC Section 23.204.030 for new floor area;
- Use Permit under BMC Section 23.204.080.B.2 to exceed the Food Service Establishment Numerical Limitation (25) in the C-E district; and
- Use Permit under BMC Section 23.326.070 to demolish a nonresidential building.

The City's Zoning Adjustments Board would consider granting the requested Administrative Use Permits, Use Permits, and other permits as it reviews the proposed project. With approval of the above permits, the proposed project would be consistent with the BMC.

Therefore, the proposed project would not 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, and the proposed project would have no impact, either individually or cumulatively, related to land use and planning.

2.2.4 Mineral Resources

The project site is located within an urban area on an infill site. There are no known mineral resources within or in the vicinity of the project site.[8] The proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State or any

[8] Berkeley, City of. 2001. *City of Berkeley General Plan*.

locally important mineral resource recovery site, and no impact, either individually or cumulatively, related to the loss of mineral resources would occur.

2.2.5 Public Services

Development of the proposed project would result in a minimal increase in the population on the project site (approximately 14 new residents and 6 new employees as discussed in Section 3.10, Population and Housing), incrementally increasing the demand on emergency fire services, police protection services, schools, parks, and other public facilities. Because the increase in population at the project site would be minimal and future residents/employees are expected to come from the surrounding Berkeley area, the proposed project would not result in the need for new or physically altered governmental facilities or a substantial adverse physical impact associated with the provision of additional public services.

In addition, the proposed project would be required to comply with all applicable codes for fire safety and emergency access, including the Uniform Fire Code and applicable sections of the California Health and Safety Code, California Administrative Codes, Title 19, Public Safety and Title 24, Building Standards, and additional review by the Fire Department to ensure that appropriate measures are implemented to reduce hazardous conditions at the site and provide for adequate emergency access. Further, the proposed project would be required to pay the Berkeley Unified School District's required school impact fees for new commercial and residential development, prior to issuance of a certificate of occupancy, which would be directed towards maintaining adequate service levels.

Therefore, no impact, either individually or cumulatively, related to public services would occur.

2.2.6 Recreation

New employees and residents associated with the proposed project would be expected to use local parks and community facilities in Berkeley as well as regional recreational facilities. However, because the increase in population at the project site would be minimal and future residents/employees are expected to come from the surrounding Berkeley area, the increase in use would not result in the substantial physical deterioration of local parks, trails, and community centers. The proposed project does not include or require the construction or expansion of existing public recreational facilities. Therefore, no impact, either individually or cumulatively, related to recreation would occur.

2.2.7 Wildfire

The project site is not within a very high fire hazard severity zone or a State Responsibility Area for fire service[9] and, as described in Section 3.9, Hazards and Hazardous Materials, would not impair the implementation of, or physically interfere with, an adopted emergency response plan. The proposed project would not exacerbate wildfire risks and thereby would not expose project occupants to

[9] California Department of Forestry and Fire Protection. 2023. Fire Hazard Severity Zones in State Responsibility Area. September 29. Effective April 1, 2024. Website: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008 (accessed June 21, 2024).

pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. In addition, the proposed project would not require the installation or maintenance of associated infrastructure and would not expose people or structures to significant risks as a result of post-fire slope instability or drainage and runoff changes. Therefore, no impact, either individually or cumulatively, related to wildfire would occur.

3.0 ENVIRONMENTAL CHECKLIST

3.1 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	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?	☐	☐	☒	☐

The project site is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially. In Berkeley, and the rest of the air basin, exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Within the BAAQMD, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (particulate matter less than 10 microns in size [PM_{10}], and particulate matter less than 2.5 microns in size [$PM_{2.5}$]), and lead (Pb) have been set by both the State of California and the federal government. The State has also set standards for sulfate and visibility. The BAAQMD is under State non-attainment status for ozone and particulate matter (both PM_{10} and $PM_{2.5}$) standards. The BAAQMD is classified as non-attainment for the federal ozone 8-hour standard and non-attainment for the federal $PM_{2.5}$ 24-hour standard.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan? ***(Less Than Significant Impact)***

The applicable air quality plan is the BAAQMD 2017 Clean Air Plan (Clean Air Plan),[10] which was adopted on April 19, 2017. The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The Clean Air Plan defines control strategies to reduce emissions

[10] Bay Area Air Quality Management District (BAAQMD). 2017. *Clean Air Plan*. April 19.

and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest heath risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate. Consistency with the Clean Air Plan can be determined if the project: (1) supports the goals of the Clean Air Plan; (2) includes applicable control measures from the Clean Air Plan; and (3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan. As discussed below, the proposed project would not conflict with or obstruct implementation of the Clean Air Plan, and this impact would be less than significant.

Clean Air Plan Goals. The primary goals of the Bay Area Clean Air Plan are to: attain air quality standards; reduce population exposure and protect public health in the Bay Area; and reduce greenhouse gas emissions and protect climate.

The BAAQMD has established significance thresholds for project construction and operational impacts at a level at which the cumulative impact of exceeding these thresholds would have an adverse impact on the region's attainment of air quality standards. The health and hazards thresholds were established to help protect public health. As discussed below under Threshold 3.1.b, implementation of the proposed project would result in less than significant operation-period emissions and, with implementation of standard conditions that would implement BAAQMD-required particulate reduction measures during construction (*COA: Public Works - Implement BAAQMD-Required Measures During Construction*) and require equipment controls to reduce diesel particulate matter for off-road construction equipment (*COA: Air Quality - Diesel Particulate Matter Controls During Construction*), the proposed project would result in less than significant construction-period emissions. Therefore, the proposed project would not conflict with the Clean Air Plan goals.

Clean Air Plan Control Measures. The control strategies of the Clean Air Plan include measures in the following categories: Stationary Source Measures, Transportation Measures, Energy Measures, Building Measures, Agriculture Measures, Natural and Working Lands Measures, Waste Management Measures, Water Measures, and Super-Greenhouse Gas (GHG) Pollutants Measures. The project's compliance with each of these control measures is discussed below. As discussed, the project would not conflict with the Clean Air Plan control measures.

> ***Stationary Source Control Measures.*** The Stationary Source Control Measures, which are designed to reduce emissions from stationary sources such as metal melting facilities, cement kilns, refineries, and glass furnaces, are incorporated into rules adopted by the BAAQMD and then enforced by BAAQMD permit and inspection programs. Because the proposed project would not include any such stationary sources, the Stationary Source Measures of the Clean Air Plan do not apply to the project.
>
> ***Transportation Control Measures.*** The BAAQMD identifies Transportation Control Measures as part of the Clean Air Plan to decrease emissions of criteria pollutants, toxic air contaminants (TACs), and GHGs by reducing demand for motor vehicle travel, promoting efficient vehicles and transit service, decarbonizing transportation fuels, and electrifying motor vehicles and equipment. The proposed project would redevelop the project site with two mixed-use buildings containing a total of six residential units and 1,481 square feet of commercial space on an infill

site that would locate residents and employees near existing residential and commercial uses. The project site is served by an 8-foot sidewalk along College Avenue and is located within 0.5 miles of several intersecting major bus routes, including Alameda-Contra Costa County (AC) Transit Lines 6, 7, 79, 800, 851, and E. Additionally, the proposed project would provide four long-term and two short-term bicycle parking spaces for the proposed residential uses in a covered bike storage area. Therefore, the project would support the ability of residents and employees to use alternative modes of transportation and would not conflict with Transportation Control Measures.

Energy Control Measures. The Clean Air Plan also includes Energy Control Measures, which are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area, as well as decreasing the carbon intensity of the electricity used by switching to less GHG intensive fuel sources for electricity generation. Because these measures apply to electrical utility providers and local government agencies (and not to individual projects), the Energy Control Measures of the Clean Air Plan are not directly applicable to the proposed project. However, the proposed project would be required to comply with all federal, State, and local requirements for energy efficiency, including the latest California Energy Code and California Green Building Standards Code (CALGreen Code) standards and any locally adopted amendments. Therefore, the proposed project would comply with applicable Energy Control Measures.

Building Control Measures. The BAAQMD has authority to regulate emissions from certain sources in buildings such as boilers and water heaters, but has limited authority to regulate buildings themselves. Therefore, the strategies in the control measures for this sector focus on working with local governments that do have authority over local building codes, to facilitate adoption of best GHG control practices and policies. Therefore, the Building Control Measures of the Clean Air Plan are not applicable to the proposed project. However, the proposed project would comply with California Energy Code and CALGreen Code standards including any locally adopted amendments.

Agriculture Control Measures. The Agriculture Control Measures are designed to primarily reduce emissions of methane. Since the proposed project does not include any agricultural activities, the Agriculture Control Measures of the Clean Air Plan do not apply to the proposed project.

Natural and Working Lands Control Measures. The Natural and Working Lands Control Measures focus on increasing carbon sequestration on rangelands and wetlands, as well as encouraging local governments to adopt ordinances that promote urban tree plantings. Because the proposed project does not include the disturbance of any rangelands or wetlands, the Natural and Working Lands Control Measures of the Clean Air Plan are not applicable to the proposed project.

Waste Management Control Measures. The Waste Management Measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The proposed project would comply with local requirements for waste

management (e.g., recycling and composting services). Therefore, the proposed project would be consistent with the Waste Management Control Measures of the Clean Air Plan.

Water Control Measures. The Water Control Measures focus on reducing emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works (POTWs), and promoting the use of biogas recovery systems. Since these measures apply to POTWs and local government agencies (and not individual projects), the Water Control Measures are not directly applicable to the proposed project.

Super GHG Control Measures. The Super-GHG Control Measures are designed to facilitate the adoption of best GHG control practices and policies through the BAAQMD and local government agencies. Since these measures do not apply to individual projects, the Super-GHG Control Measures are not applicable to the proposed project.

Clean Air Plan Implementation. As discussed above, the proposed project would implement the applicable measures outlined in the Clean Air Plan, including Transportation Control Measures. Therefore, the proposed project would not disrupt or hinder implementation of a control measure from the Clean Air Plan, and this impact would be less than significant.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? ***(Less Than Significant Impact)***

The BAAQMD is currently designated as a non-attainment area for State and national ozone standards and national particulate matter ambient air quality standards. The BAAQMD's non-attainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. The following analysis assesses the potential project-level construction- and operation-related air quality impacts and CO impacts.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by demolition, grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxide (NO_x), reactive organic gases (ROG), directly-emitted particulate matter ($PM_{2.5}$ and PM_{10}), and TACs such as diesel exhaust particulate matter.

Site preparation and project construction would involve demolition, grading, paving, and other activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The BAAQMD has established standard measures for reducing fugitive dust emissions (PM_{10}). The BAAQMD's CEQA Guidelines provide that implementation of these Basic Best Management Practices (BMPs) will result in a less than significant criteria air pollutant impact related to construction-related fugitive dust emissions. The City has established *COA: Public Works - Implement BAAQMD-Recommended Measures During Construction*, which requires the implementation of the BAAQMD's Basic Best Management Practices.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, ROGs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

The BAAQMD has developed screening criteria to provide lead agencies with a conservative indication of whether a proposed project would result in potentially significant air quality impacts. If all of the screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment of the proposed project's emissions. However, as part of the construction screening criteria, project construction activities must not include demolition. Since the proposed project would demolish the existing on-site commercial building, the BAAQMD's construction screening criteria would not apply. As such, construction emissions were estimated for the proposed project using the California Emissions Estimator Model (CalEEMod) version 2022.1, consistent with BAAQMD recommendations.

As included in the CalEEMod modeling, construction of the proposed project is anticipated to begin June 2025 and end November 2026. Construction activities would include the demolition of the existing structures and all surface pavements on the project site. Construction of the proposed project would not require any soil import or export. In addition, the construction equipment list and the number of workers, vendors, and haul trips were provided by the project sponsor. Additionally, the demolition debris would be disposed of at the Berkeley Transfer Station, which was included in CalEEMod. Construction-related emissions are presented in Table 3.A. CalEEMod output sheets are included in Appendix A.

Table 3.A: Project Construction Emissions in Pounds Per Day

Project Construction	ROG	NO_x	Exhaust PM_{10}	Fugitive Dust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust $PM_{2.5}$
2025	0.1	4.7	0.1	0.5	0.1	0.3
2026	0.4	5.1	0.2	<0.1	0.2	<0.1
Maximum Average Daily Emissions	**0.4**	**5.1**	**0.2**	**0.5**	**0.2**	**0.3**
BAAQMD Thresholds	54.0	54.0	82.0	BMPs	54.0	BMPs
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (August 2024).
BAAQMD = Bay Area Air Quality Management District
BMPs = best management practices
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROG = reactive organic gases

As shown in Table 3.A, estimated construction ROG, NO_x, and $PM_{2.5}$ and PM_{10} exhaust emissions would be below the BAAQMD's thresholds. As discussed above, the BAAQMD's Basic BMPs are required to ensure construction $PM_{2.5}$ and PM_{10} fugitive dust impacts would be less than significant. Therefore, the analysis above assumes that BAAQMD BMPs would be implemented. In addition to the BAAQMD regulations, the City requires the implementation of *COA: Public Works – Implement BAAQMD-Recommended Measures During Construction*, which are consistent with BAAQMD requirements for fugitive dust impacts. The City also requires the implementation of *COA: Air Quality – Diesel Particulate Matter Controls During Construction* to require cleaner construction equipment for projects with construction lasting more than 2 months. With implementation of these COAs, which are outlined below, construction impacts would be less than significant.

COA Public Works - Implement BAAQMD-Recommended Measures During Construction. For all proposed projects, BAAQMD recommends implementing all the Basic Best Management Practices, listed below to meet the best management practices threshold for fugitive dust:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- 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.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- A publicly-visible sign shall be posted with the telephone number and person to contact at the City of Berkeley regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

COA Air Quality - Diesel Particulate Matter Controls During Construction. All off-road construction equipment used for projects with construction lasting more than 2 months shall comply with one of the following measures:

a. The project applicant shall prepare a health risk assessment that demonstrates the project's on-site emissions of diesel particulate matter during construction will not exceed health risk screening criteria after a screening-level health risk assessment is conducted in accordance with current guidance from BAAQMD and Office of Environmental Health Hazard Assessment (OEHHA). The health risk assessment shall be submitted to the Land Use Planning Division for review and approval prior to the issuance of building permits; or

b. All construction equipment shall be equipped with Tier 2 or higher engines and the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by the California Air Resources Board (CARB). The equipment shall be properly maintained and tuned in accordance with manufacturer specifications.

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

   - An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date.

   - A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract. The Emissions Plan shall be submitted to the Public Works Department for review and approval prior to the issuance of building permits.

The proposed project would be required to comply with the above City-required COAs. The BAAQMD's Basic BMPs would be implemented during the construction period. Also refer to Section 3.1.c, below which discusses potential health risk impacts to sensitive receptors during project construction. In compliance with *COA: Air Quality – Diesel Particulate Matter Controls During Construction*, a health risk assessment was conducted for the proposed project. As such, construction of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standards, and impacts would be less than significant.

Operational Emissions. Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project.

Mobile source emissions include ROG and NO_X emissions, which contribute to the formation of ozone. Additionally, PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Energy source emissions would typically result from activities in buildings for which natural gas is used. Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings, consumer products, and the use of landscape maintenance equipment.

As discussed above, the BAAQMD has developed screening criteria to provide lead agencies with a conservative indication of whether a proposed project would result in potentially significant air quality impacts. If all of the screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment of the proposed project's emissions. These screening levels are generally representative without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions.

For operational criteria pollutants, the BAAQMD screening size for apartment land uses is 638 units and for retail/strip mall land uses is 204,000 square feet. The proposed project would include two mixed-use buildings containing a total of six residential units and 1,481 square feet of commercial space, Therefore, based on the BAAQMD's screening criteria, operational activities associated with the proposed project are not anticipated to exceed established thresholds. As such, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project is in non-attainment under applicable federal or State ambient air quality standards and impacts would be less than significant.

Localized CO Impacts. Emissions and ambient concentrations of CO have decreased dramatically in the Bay Area with the introduction of the catalytic converter in 1975. No exceedances of the State or federal CO standards have been recorded at Bay Area monitoring stations since 1991. The BAAQMD's 2022 CEQA Guidelines include recommended methodologies for quantifying concentrations of localized CO levels for proposed development projects. A screening level analysis using guidance from the BAAQMD CEQA Guidelines was performed to determine the impacts of the project. The screening methodology provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the

BAAQMD's 2022 CEQA Guidelines, a project would result in a less than significant impact to localized CO concentrations if the following screening criteria are met:

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

Implementation of the proposed project would not conflict with standards established by the Alameda County Transportation Commission (ACTC). As identified in Section 3.11, Transportation, the proposed project would generate approximately 6 AM peak hour trips and 13 PM peak hour trips. As the project's contribution to peak-hour traffic volumes at intersections in the vicinity of the project site would be well below 44,000 vehicles per hour, the proposed project would not result in localized CO concentrations that exceed State or federal standards, and impacts would be less than significant.

c. 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ***(Less Than Significant Impact)***

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic non-cancer health risks.

According to the BAAQMD, a project would result in a significant impact if it would: individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 10.0 in one million, an increased non-cancer risk of greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient $PM_{2.5}$ increase greater than 0.3 micrograms per cubic meter ($\mu g/m^3$). A significant cumulative impact would occur if the project, in combination with other projects located within a 1,000-foot radius of the project site, would expose sensitive receptors to TACs resulting in an increased cancer risk greater than 100.0 in one million, an increased non-cancer risk of greater than 10.0 on the hazard index (chronic), or an ambient $PM_{2.5}$ increase greater than 0.8 $\mu g/m^3$ on an annual average basis. Impacts from substantial pollutant concentrations are discussed below.

The project site is located in an urban area in close proximity to existing residential uses that could be exposed to diesel emission exhaust during the construction period. The City requires the implementation of diesel particulate matter controls, which are required by *COA: Air Quality – Diesel*

Particulate Matter Controls During Construction, to reduce potential health risks to sensitive receptors during project construction.

In compliance with *COA: Air Quality – Diesel Particulate Matter Controls During Construction*, to estimate the potential cancer risk from project construction equipment exhaust (including diesel particulate matter), a dispersion model was used to translate an emission rate from the source location to a concentration at the receptor location (i.e., a nearby residential land use). Dispersion modeling varies from a simpler, more conservative screening-level analysis to a more complex and refined detailed analysis. This refined assessment was conducted using CARB's exposure methodology, with the air dispersion modeling performed using the US EPA dispersion model AERMOD (the American Meteorological Society/Environmental Protection Agency Regulatory Model). The model provides a detailed estimate of exhaust concentrations based on site and source geometry, source emissions strength, distance from the source to the receptor, and site-specific meteorological data.

The results of the analysis at the maximally exposure individual (MEI) are shown in Table 3.B below utilizing the CalEEMod outputs based on the construction equipment list provided by the project sponsor. Model outputs and snapshots of the sources are provided in Appendix A.

Table 3.B: Uncontrolled Inhalation Health Risks from Project Construction to Off-Site Receptors

Project Construction	Carcinogenic Inhalation Health Risk in 1 Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Residential Receptor MEI	23.76	0.018	0.000	0.09
Worker Receptor MEI	3.67	0.185	0.000	0.79
Threshold	**10.0**	**1.0**	**1.0**	**0.30**
Exceed?	**Yes**	**No**	**No**	**Yes**

Source: LSA (September 2024).
$\mu g/m^3$ = micrograms per cubic meter
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

As shown in Table 3.B, the uncontrolled risk associated with project construction at the residential receptor MEI would be 23.76 in one million, which would exceed the BAAQMD cancer risk threshold of 10 in one million. The worker receptor MEI risk would be lower at 3.67 in one million, which would not exceed the BAAQMD cancer risk threshold. The chronic hazard index would be 0.018 for the residential receptor MEI and 0.185 for the worker receptor MEI, which are below the threshold of 1.0. In addition, the acute hazard index would be nominal (0.000), which would also not exceed the threshold of 1.0. The results of the analysis indicate that the $PM_{2.5}$ concentration would be 0.09 $\mu g/m^3$ for the residential receptor MEI, which would not exceed the BAAQMD significance threshold of 0.30 $\mu g/m^3$; however, the $PM_{2.5}$ concentration would be 0.79 $\mu g/m^3$ for the worker receptor MEI, which would exceed the BAAQMD significance threshold of 0.30 $\mu g/m^3$.

Therefore, since cancer risk and $PM_{2.5}$ concentrations would exceed the BAAQMD's thresholds, consistent with *COA: Air Quality - Diesel Particulate Matter Controls During Construction*, all construction equipment shall be equipped with Tier 2 or higher engines and the most effective

Verified Diesel Emission Control Strategies (VDECS) available for the engine type. Table 3.C, below, identifies the results of the analysis assuming the use of Tier 2 construction equipment equipped with Level 3 diesel particulate filters, as required by *COA: Air Quality – Diesel Particulate Matter Controls During Construction*.

Table 3.C: Controlled Inhalation Health Risks from Project Construction to Off-Site Receptors

Project Construction	Carcinogenic Inhalation Health Risk in 1 Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Residential Receptor MEI	3.88	0.003	0.000	0.01
Worker Receptor MEI	0.60	0.024	0.000	0.11
Threshold	**10.0**	**1.0**	**1.0**	**0.30**
Exceed?	**No**	**No**	**No**	**No**

Source: LSA (September 2024).
$\mu g/m^3$ = micrograms per cubic meter
$PM_{2.5}$ = particulate matter less than 2.5 microns in size

As shown in Table 3.C, with the use of Tier 2 construction equipment equipped with Level 3 diesel particulate filters, as required by *COA: Air Quality – Diesel Particulate Matter Controls During Construction*, the risk associated with project construction at the residential receptor MEI would be 3.88 in one million, which would be below the BAAQMD cancer risk threshold of 10 in one million. Additionally, the $PM_{2.5}$ concentration would be 0.11 $\mu g/m^3$ for the worker receptor MEI, which would also not exceed the BAAQMD significance threshold of 0.30 $\mu g/m^3$. Therefore, with implementation of *COA: Air Quality – Diesel Particulate Matter Controls During Construction*, sensitive receptors would not be exposed to substantial pollutant concentrations during project construction.

Once the project is constructed, the project would not be a source of substantial emissions. Therefore, with implementation of *COA: Air Quality – Diesel Particulate Matter Controls During Construction*, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during project construction or operation, and potential impacts would be less than significant.

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

During project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and localized. Because the project's potential construction-related odor impacts are localized and temporary, they would not adversely affect a substantial number of people and would not result in frequent odor complaints. The proposed project would not include any activities or operations that would generate objectionable odors as may be more commonly observed with wastewater treatment, landfills and composters, heavy manufacturers and food processors, and, once operational, the project would not be a source of odors. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

3.2 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, 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 approximately 0.15-acre site is located in a highly urbanized area of the City of Berkeley situated amongst existing commercial and residential uses. Biological resources on the site mainly consist of those species of plants and animals that are tolerant of human disturbance and can survive in the urban environment. Due to previous disturbance of the project site and the urban area, use of the project site by wildlife is expected to be limited. Vegetation on the project site consists of grasses and shrubs, scattered native plants, ruderal vegetation, and mature trees. Ruderal plant species are those that colonize disturbed lands. Two trees (one of which is dead) are present on the project site and a street tree is located within the public right-of-way along College Avenue. The street tree has a diameter at breast height (DBH) of under 15 inches. The following provides an overview of existing conditions related to biological resources at and within the vicinity of the site. Existing conditions were determined through literature searches, as further described below.

To establish existing conditions related to biological resources, the California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB)[11] was reviewed for lists of special-status species that have occurred or could occur within 5 miles of the project site.

Special-Status Plants and Wildlife. A total of 26 special-status wildlife species and 18 special-status plant species have CNDDB occurrences within 5 miles of the project site, as provided in Table 3.D. None of the plant species are likely to occur at the project site due to the lack of suitable vegetation communities or soil substrates (e.g., salt marsh, woodland, chaparral, alkaline substrates) and prior disturbance (grading, construction, and introduction of exotic plant species) at the site. Special-status bat species could roost in the on-site outbuildings and in the trees on or adjacent to the site, and special-status bird species could nest in the trees on or adjacent to the site. All other wildlife species are not likely to occur at the project site due to the urban nature of the project site and surrounding area, lack of suitable habitat, and prior disturbance (grading, construction, and introduction of exotic plant species) at the site.

Table 3.D: Special-Status Species Within 5 Miles of the Project Site

Species	Taxonomic Group	Status[1]
Animals		
Pallid bat (*Antrozous pallidus*)	Mammal	-/CSC
Hoary bat (*Lasiurus cinereus*)	Mammal	None[2]
Silver-haired bat (*Lasionycteris noctivagans*)	Mammal	None[2]
American badger (*Taxidea taxus*)	Mammal	None[2]
Berkeley kangaroo rat (*Dipodomys heermanni berkeleyensis*)	Mammal	None[2]
Green sturgeon (*Acipenser medirostris*)	Fish	FT/CSC
Longfin smelt (*Spirinchus thaleichthys*)	Fish	FC/ST[3]
Tidewater goby (*Eucyclogobius newberryi*)	Fish	FE/CSC
Western bumble bee (*Bombus occdentalis*)	Insect	-/SCE[4]
Obscure bumble bee (*Bombus caliginosus*)	Insect	None[2]
Bay checkerspot butterfly (*Euphydryas editha bayensis*)	Insect	FT/-
Monarch (*Danaus plexippus plexippus*)	Insect	FC/-[5]
Lee's micro-blind harvestman (Microcina leei)	Arachnids	None[1]
Foothill yellow-legged frog (*Rana boylii*)	Amphibian	FT/SE
California red-legged frog (*Rana draytonii*)	Amphibian	FT/-
Western pond turtle (*Emys marmorata*)	Reptile	FT/ST
Alameda whipsnake (*Masticophis lateralis euryxanthus*)	Reptile	FT/ST
Golden eagle (*Aquila chrysaetos)*)	Bird	None[2]
Alameda song sparrow (*Melospiza melodia pusillula*)	Bird	-/CSC
California black rail (*Laterallus jamaicensis coturniculus*)	Bird	-/ST and CFP
California Ridgeway's rail (*Rallus obsoletus obsoletus*)	Bird	FE/SE and CFP
Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*)	Bird	-/CSC
White-tailed kite (*Elanus leucurus*)	Bird	-/CFP
Cooper's hawk (*Accipiter cooperi*)	Bird	None[6]
Northern harrier (*Circus hudsonius*)	Bird	-/CSC
Bridges' coast range shoulderband (*Helminthoglypta nickliniana bridgesi*)	Mollusk	None[2]

[11] California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database, commercial version dated April 30, 2022. Biogeographic Data Branch, Sacramento.

Table 3.D: Special-Status Species Within 5 Miles of the Project Site

Species	Taxonomic Group	Status[1]
Plants		
Saline clover (*Trifolium hydrophilum*)	Dicot	1B.2
Fragrant fritillary (*Fritillaria liliacea*)	Monocot	1B.2
Jepson's coyote-thistle (*Eryngium jepsonii*)	Dicot	1B.2
Santa Cruz tarplant (*Holocarpha macrodenia*)	Dicot	FT/SE, 1B.1
Santa Clara red ribbons (*Clarkia concinna* ssp. *automixa*)	Dicot	4.3
California seablite (*Suaeda californica*)	Dicot	FE/-, 1B.1
Bent-flowered fiddleneck (*Amsinckia lunaris*)	Dicot	1B.2
Point Reyes salty bird's beak (*Chloropyron maritimum* ssp. *palustre*)	Dicot	1B.2
Pallid manzanita (*Arctostaphylos pallida*)	Dicot	FT/SE, 1B.1
Most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*)	Dicot	1B.2
Diablo helianthella (*Helianthella castanea*)	Dicot	1B.2
Western leatherwood (*Dirca occidentalis*)	Dicot	1B.2
Minute pocket moss (*Fissidens pauperculus*)	Bryophyte	1B.2
Alkali milk-vetch (*Astragalus tener* var. *tener*)	Dicot	1B.2
Oregon meconella (*Meconella oregana*)	Dicot	1B.1
Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*)	Dicot	1B.2
Franciscan thistle (*Cirsium andrewsii*)	Dicot	1B.2
Northern slender pondweed (*Stuckenia filiformis* ssp. *alpina*)	Dicot	2B.2

Source: Compiled by LSA (2024).

[1] Status:

Federal/State

FE = Federally Endangered — FT = Federally Threatened
FC = Federal Candidate — CFP = California Fully Protected Species
SCE = State Candidate Endangered — SE = State Endangered
ST = State Threatened — CSC = California Species of Special Concern
1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
4.3 = Plants of limited distribution; not very threatened in California

[2] This species is not listed on the Federal and State Endangered/Threatened Species list but is included on the State of California Natural Resources Agency Department of Fish and Wildlife CNDDB Special Animals List (April 2024).

[3] The federal Candidate status is for the San Francisco Bay-Delta Distinct Population Segment.

[4] On June 12, 2019, the California Fish and Game Commission (Commission) voted to accept a petition from the Xerces Society (2018) to consider listing four subspecies of bumble bee, including the Western bumble bee *(Bombus occidentalis*), under CESA. As a result of this decision, the Western bumble bee is a state candidate endangered species; as such, it is temporarily afforded the same protection as State-listed threatened or endangered species.

[5] Winter colonies recognized by CDFW and USFWS as a sensitive species in California and tracked by the CNDDB, but do not have a special status.

[6] The Cooper's hawk is also not a listed species, but it is tracked by the CNDDB because it is on the CDFW Watch list.

Riparian Habitat or Other Sensitive Natural Communities. The CNDDB contains occurrences for two sensitive natural communities, northern coastal salt marsh and northern maritime chaparral, within 5 miles of the project site. There is no salt marsh or maritime chaparral on or adjacent to the site. There is no riparian habitat or other sensitive natural communities on the project site.

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? ***(Less Than Significant with Mitigation Incorporated)***

The proposed project would result in redevelopment of the project site with commercial and residential uses. The project site has negligible value as habitat for any species listed as endangered or threatened by the federal Endangered Species Act or California Endangered Species Act. Due to the lack of suitable vegetation communities or soil substrates (e.g., salt marsh, open water, chaparral, alkaline substrates) and prior disturbance (e.g., landscaping, grading, construction) at the site, none of the special-status plant species are expected to occur on the site. Similarly, no suitable habitat (e.g., streams, marshes, or chaparral) for most of the special-status wildlife in the area occurs on the site.

Existing buildings on the project site may provide habitat for bats, some species of which find suitable roost sites and foraging sites even in the urban environment. Implementation of the proposed project would facilitate development of the entire project site and assumes demolition of all existing structures on the project site. Demolition of structures while bats are present could result in loss of the roost and impacts to bats, which would be a potentially significant impact. In order to address potential impacts on bats that may be present on the project site, the proposed project would be required to implement Mitigation Measures BIO-1a through BIO-1e, as detailed below. With implementation of Mitigation Measure BIO-1a through BIO-1e, potential impacts to bats that may be present on the project site would be less than significant.

Mitigation Measure BIO-1a Prior to the initiation of demolition or tree removal activities occurring during the spring, summer, or fall months (March 1 through November 30), the project sponsor shall retain a qualified biologist to conduct a presence/absence survey to evaluate the site for the occurrence of bats and bat roosts. The surveys shall take place no more than 30 days prior to construction/demolition/ removal activities to allow sufficient time to implement mitigation if bats are found during the survey. The project sponsor shall submit a memorandum with the demolition permit application identifying the qualified biologist retained to conduct the survey and the date of the survey. A second memorandum detailing the findings shall be prepared by the qualified biologist and submitted to the City of Berkeley after completion of the survey.

Mitigation Measure BIO-1b If a bat roost is found in any on-site buildings, the species of bat using the roost shall be identified. If the roost is occupied by common species and is not used as a maternity roost, as determined by a qualified biologist, the project sponsor shall retain a qualified biologist to conduct preconstruction surveys for to determine the presence or absence of bat roosts in existing buildings prior to construction activities. The survey shall take place no more than 30 days prior to construction/demolition/removal

activities. Preconstruction surveys shall be repeated if demolition or construction activities are delayed more than 30 days.

Methods to encourage the bats to leave the roost or to prevent them from returning to the roost shall be implemented prior to roost removal. A mitigation plan shall be developed by the qualified biologist to specify the methods to be used and the timing of the activities. These methods could include removal of roosting sites during the time of day the roost is unoccupied or the installation of one-way doors, allowing the bats to leave the roost but not to re-enter. This mitigation plan shall be submitted to the City for review and approval prior to the initiation of demolition or tree removal activities.

Mitigation Measure BIO-1c If special-status bats are found on site, and the roost would be disturbed or destroyed during development, an artificial roost shall be provided. The roost shall be constructed and placed on site or at a City- and California Department of Fish and Wildlife (CDFW)-approved off-site mitigation area prior to removal of the original roost. Materials from the roost site shall be salvaged, when feasible, to be used in the construction of artificial roosts. A mitigation plan specifying the construction details and siting of the structure shall be prepared by the qualified biologist and approved by the City and CDFW prior to removal of the existing roost. The project sponsor shall provide a secure source of funding for the monitoring of the artificial roost for a period of 5 years and for implementing actions to remediate the artificial roost if it does not attract bats. A report documenting the implementation of the plan shall be provided to the City and CDFW within one month of completion of the artificial roost. Annual monitoring reports shall be provided to the City and CDFW by the project sponsor by November 30 of each year, for the 5-year period. The mitigation plan shall be completed and implemented prior to the issuance of the demolition permit.

Mitigation Measure BIO-1d If bat roosts are identified for protection as a result of surveys conducted as part of Mitigation Measure BIO-1a or b, pruned limbs or cut trees shall be left on the ground in place for at least 24 hours after cutting to allow any bats that may be roosting in the trees to leave the roosts prior to removal.

Mitigation Measure BIO-1e Removal of maternity roosts for any species of bats either common or special-status shall be coordinated with CDFW prior to removal. Maternity roosts for any species of bat, either common or special-status, shall not be demolished until a qualified biologist has determined that the young are able to fly independently of their mothers.

In addition, all native birds and their nests, regardless of their regulatory status, are protected by the California Fish and Game Code. If conducted during the breeding season (February through August), vegetation removal and other demolition or construction activities could directly impact nesting birds by removing trees and/or vegetation, or structures that support active nests. Implementation of *COA: Avoid Disturbance of Nesting Birds* would ensure that potential impacts to special-status species would be less than significant.

> ***COA: Avoid Disturbance of Nesting Birds.*** Initial site disturbance activities, including vegetation and concrete removal, shall be prohibited during the general avian nesting season (February 1 to August 31), if feasible. If nesting season avoidance is not feasible, the applicant 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 the California Fish and Game Code, nesting bird surveys shall be performed not more than 14 days prior to scheduled vegetation and concrete removal. In the event that active nests are discovered, a suitable buffer (typically a minimum buffer of 50 feet for passerines 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. Nesting bird surveys are not required for construction activities occurring between August 31 and January 31.

With implementation of Mitigation Measures BIO-1a through BIO-1e and adherence to all applicable City requirements, including BMC Section 23.304.150, and *COA: Avoid Disturbance of Nesting Birds*, potential impacts associated with special-status species would be less than significant with mitigation incorporated.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? ***(No Impact)***

The proposed project would not adversely affect any riparian habitat, which is absent from the site. Northern coastal salt marsh and northern maritime chaparral are the only special-status natural communities that the CNDDB lists within 5 miles of the project site. Neither community is present at the project site and, therefore, would not be affected by the proposed project. Therefore, there would be no impact to riparian habitats or sensitive natural communities.

c. Would the project have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ***(No Impact)***

According to the U.S. Fish and Wildlife Service's National Wetlands Inventory,[12] no protected wetlands are present on the project site. Therefore, the proposed project would have no impact related to State or federally protected wetlands.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? ***(Less Than Significant Impact)***

The project site is not located within a migratory wildlife movement corridor. Furthermore, most of the species that likely use the site are "generalists" that are adept at moving through urban landscapes. However, trees, shrubs, other vegetation, and structures have the potential to support nests of many common native bird species. All native birds and their nests, regardless of their regulatory status, are protected by the California Fish and Game Code. If conducted during the breeding season (February through August), vegetation removal and other demolition or construction activities could directly impact nesting birds by removing trees and/or vegetation, or structures that support active nests. As discussed above under Section 3.2.a, implementation of *COA: Avoid Disturbance of Nesting Birds* would ensure that potential impacts to nesting birds would be less than significant.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ***(Less Than Significant Impact)***

BMC Section 12.44.020[13] protects certain trees, including street trees, within the City of Berkeley. One tree (*Ginkgo biloba*) located within the public right-of-way along College Avenue is considered a protected tree under BMC Section 12.44.020.

As detailed in the Arborist Plan Review Memorandum[14] prepared for the proposed project, although the proposed project does not include the removal of the street tree along College Avenue,

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12 United States Fish and Wildlife Service (USFWS). *National Wetlands Inventory*. Website: https://fws primary.wim.usgs.gov/wetlands/apps/wetlands-mapper/ (accessed June 10, 2024).

13 BMC Section 12.44.020: It unlawful for any person to cut, trim, remove, mutilate, injure or in any way impair the growth of any tree, shrub or plant being or growing in or on any public property within the City, or to cause or permit the same to be done. Provided, however, that in the event that any person desires permission to cut, trim, remove or in any way impair the natural growth of any such tree, shrub or plant, application shall first be made to the Director of Recreation and Parks for a permit therefor. Upon receipt of such application, the Director of Recreation and Parks may cause an inspection to be made and may thereafter issue or refuse to issue a permit for such work. Provided, further, that whenever it is deemed necessary by the Director of Recreation and Parks, he may require the work specified in said application, or any part thereof, to be done under his supervision, and the cost of such supervision shall be borne by the project sponsor if so determined by the Director of Recreation and Parks.

14 Berkeley, City of. 2022c. *2942 College Avenue - Arborist Plan Review.* December 12.

construction of the proposed project could impact this protected tree. As such, the Arborist Plan Review Memorandum provides recommendations for tree preservation during construction in compliance with the City's Tree Preservation Guidelines. Recommendations include the establishment of a tree protection zone, tree protection fencing, adding irrigation and mulch, and specifications for if any root pruning occurs. Further, the Arborist Plan Review Memorandum stipulated that if the tree is damaged during construction or requires removal, it shall be replaced in accordance with the City's Tree Planting Location Standards.[15] Consistent with requirements, the impacted street tree would be replaced at a minimum 1:1 ratio, if required. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, and potential impacts to protected trees would be less than significant.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ***(No Impact)***

The project area is not subject to any adopted habitat conservation plan or natural community conservation plan. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Plan, or other approved local, regional, or State habitat conservation plan, and no impact would occur.

15 Berkeley, City of. 2022b. *Tree Planting Location Standards.* February.

3.3 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?	☐	☐	☒	☐

*a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? **(Less Than Significant Impact)***

Cultural resources are sites, buildings, structures, objects, and districts that may have cultural value for their historical significance. For a cultural resource to be considered a "historical resource" for purposes of CEQA, it generally must be 50 years or older (CCR Section 4852(d)(2)) and: (1) be listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) be included in a local historical register of historical resources, as defined in Public Resources Code (PRC) Section 5020.1(k) or identified as part of a survey meeting the requirements of PRC Section 5024.1(g); or (3) be determined by the lead agency as historically significant. According to the *CEQA Guidelines*, a proposed project may have a significant effect on the environment if it would create "an effect that may cause a substantial adverse change in the significance of a historical resource." Specifically, substantial adverse changes include "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" (*CEQA Guidelines* Section 15064.5(b)(1)).

To identify historical resources at the project site, a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) was performed.[16] In addition, a joint California Register of Historical Resources (California Register) and Berkeley Landmarks Preservation Ordinance (Berkeley LPO) eligibility evaluation of the existing single-story commercial building was prepared by Preservation Architecture on April 27, 2021, which was peer reviewed by LSA.[17] LSA also conducted supplemental archival and secondary source research focused on biographical information for individuals identified by Preservation Architecture and LSA as having a connection to the building at the project site, which is provided as Appendix C.[18] These individuals include Japanese Americans who owned or leased the space at the project site between

[16] The NWIC is an affiliate of the State of California Office of Historic Preservation and is the official State repository of cultural resources records and reports for Contra Costa County.

[17] Preservation Architecture. 2024. *2942 College Ave., Berkeley, City of Berkeley Historical Evaluation and California Department of Parks and Recreation 523 Series forms [DPR 523 form record] of 2942 College Avenue.* April 27. Appendix B.

[18] LSA Associates, Inc. (LSA). 2024. *Supplemental Cultural Resource Evaluation of 2942 College Avenue, Berkeley, Alameda County, California (LSA Project No. CBE1906.14)*. October 2. Appendix C.

1911 and 1992 who may have unique experiences growing up or operating a business in the city during the 20th century. This additional research concluded that the existing building on the project site does not appear individually eligible for inclusion in a historical register at the national, State, or local level of significance for association with the Tsuchida family, Michizo Yokota, or Jinjiro Masuda. For these reasons, the existing building does not appear to qualify as a historical resource for the purposes of CEQA as defined at California PRC Section 21084.1. The eligibility evaluation and California Department of Parks and Recreation (DPR) 523 Series forms (DPR 523 form record) are included as Appendix B, and supplemental research is included as Appendix C.

The historical resource eligibility evaluation of the existing single-story commercial building at the project site concluded that the existing building does not appear eligible for listing in the California Register or as a candidate Berkeley Landmark, or as a Structure of Merit due to a lack of associative significance with important historical events or pattern of events, persons important in our past, or as a historically important or unusual example of an architectural style or work of an important creative individual or possess high artistic values. Accordingly, an analysis of integrity was not required, nor undertaken.

A search of the NWIC database indicates that there are no previously recorded archaeological cultural resources, including historical resources, at the project site or within 0.25 mile of the project site. The NWIC record search results identified 20 cultural reports that have been previously conducted within the 0.25-mile study area and 17 previously conducted cultural reports have included a portion of the project site within their search radius.

Because no historical resources as defined by *CEQA Guidelines* Section 15064.5(b)(2)(A)(B) are present at the project site, implementation of the proposed project would result in less than significant impacts on historical resources.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? ***(Less Than Significant Impact)***

The search of the NWIC database indicates that there are no previously recorded archaeological cultural resources at the project site. Therefore, no archaeological resources are currently known to exist on the project site. However, the proposed project would include excavation to a depth of approximately 5 feet below the ground surface. Ground-disturbing activities could have a substantial adverse change on unrecorded buried archeological deposits that qualify as historical resources, as defined in *CEQA Guidelines* Section 15064.5, and could materially impair pre-contact archeological deposits. However, the proposed project would be required to comply with *COA: Archeological Resources* that addresses this potential impact. Implementation of the City's COA related to the accidental discovery of potential archeological resources would ensure that this impact would be less than significant.

> ***COA: Archaeological Resources.*** *(Ongoing throughout demolition, grading, and/or construction).* Pursuant to CEQA Guidelines section 15064.5(f), "provisions for historical or unique archeological resources accidentally discovered during construction" should be instituted. Therefore:

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

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

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

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

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

Implementation of the appropriate procedures required by *COA: Archaeological Resources* for the treatment of archeological resources and deposits would ensure that these resources are protected if encountered at the project site during construction, by including stop work procedures in the event of a find as well as handling procedures. With this condition of approval in place, the project would have a less than significant impact on archeological resources.

c. Would the project disturb any humans remains, including those interred outside of formal cemeteries? ***(Less Than Significant Impact)***

No human remains have been identified at the project site; however, the proposed project would require excavation to a depth of approximately 5 feet below the ground surface. Ground-disturbing activities could disturb, and in turn have a substantial adverse change on, unrecorded human remains. However, the proposed project would be required to comply with *COA: Human Remains*, that addresses this potential impact. Implementation of the City's COAs related to human remains would ensure that this impact would be less than significant.

> ***COA: Human Remains.*** (*Ongoing throughout demolition, grading, and/or construction*). In the event that human skeletal remains are uncovered at the project site during ground-disturbing activities, all work shall immediately halt, and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5 (e)(1) of the

CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

Implementation of the appropriate procedures required under State law and by *COA: Human Remains* for the treatment of Native American remains would ensure that descendant communities have significant input in the treatment and final disposition of human remains, if encountered at the project site during construction. With these regulations and conditions of approval in place, the project would have a less than significant impact on human remains, including those interred outside of formal cemeteries.

3.4 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?	☐	☐	☒	☐

*a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? **(Less Than Significant Impact)***

Construction Energy Use. The anticipated construction schedule assumes that construction of the proposed project would begin in June 2025 and end in November 2026. The proposed project would require demolition, grading, site preparation, and building activities during construction.

Construction of the proposed project would require energy for the manufacture and transportation of building materials, preparation of the site for grading activities, and building construction. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. In order to increase energy efficiency on the site during project construction, idling times would be restricted to 5 minutes or less and construction workers would be required to shut off idle equipment, as required by *COA: Public Works – Implement BAAQMD-Recommended Measures During Construction*. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources.

Operational Energy Use. Typically, energy consumption is associated with fuel used for vehicle trips and electricity and natural gas use. However, the proposed project would not increase the demand for natural gas as the proposed buildings would be all electric.

In 2018, Senate Bill (SB) 100 was passed, which has committed California to generate all electricity from carbon free sources by 2045. The proposed project's all-electric design considers the context of the changing electricity grid and is designed to displace natural gas emissions over the lifetime of the building. The all-electric building design would result in decreasing emissions as California's grid becomes cleaner, and once the grid consists of 100 percent renewable generation sources, the building would have zero operational emissions associated with electricity usage. In addition to the all-electric design, the proposed project would be required to comply with the latest California Energy Code and CALGreen Code standards , including any locally adopted amendments, and would include solar panels, which would help to reduce energy consumption and greenhouse gas emissions.

The proposed project would also result in energy usage associated with gasoline for project-related trips. The proposed project would generate approximately 109 average daily trips. Based on fuel

consumption obtained from CARB's Emission Factor model (EMFAC2021), approximately 540.5 million gallons of gasoline and approximately 156.2 million gallons of diesel fuel will be consumed from vehicle trips in Alameda County in 2024. Therefore, based on the total fuel usage in Alameda County and the minimal increase in average daily trips, vehicle trips associated with the proposed project would negligibly increase the annual fuel use in Alameda County. Additionally, the project site is served by an 8-foot sidewalk along College Avenue and is located within 0.5 mile of several intersecting major bus routes, including AC Transit Lines 6, 7, 79, 800, 851, and E. The proposed project would provide four long-term and two short-term bicycle parking spaces for the proposed residential uses in a covered bike storage area. Therefore, the project would support the ability of residents and employees to use alternative modes of transportation. As such, fuel consumption associated with vehicle trips generated by project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

Given the location of the project and proposed improvements, implementation of the proposed project would not result in a substantial increase in electricity, natural gas, or transportation-related energy, such that it would result in a wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ***(Less Than Significant Impact)***

In 2002, the State Legislature passed SB 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

The most recently adopted CEC energy report is the 2023 Integrated Energy Policy Report. The 2023 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2023 Integrated Energy Policy Report covers a broad range of topics, including implementation of SB 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to SB 1383), updates on Northern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

Locally, the Berkeley City Council adopted a Climate Action Plan in 2009 and has made additional commitments regarding renewable energy and energy efficiency including:

- 100 percent renewable electricity by 2035
- Net-Zero Carbon Emissions by 2045, in alignment with Governor Brown's Executive Order B-55-18
- Declared a Climate Emergency and resolved to become a Fossil Fuel Free City
- Cities Race to Zero Campaign: Committed to reducing emissions 60.5 percent from 2018 levels by 2030, an emission reduction target that reflects Berkeley's fair share of the 50 percent global reduction in CO_2e

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be negligible in comparison to the State's available energy sources, and energy impacts would be minimal at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC 2023 Integrated Energy Policy Report. As an all-electric building with a solar photovoltaic system, the proposed project would also be consistent with local climate commitments. Therefore, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and this impact would be less than significant.

3.5 GEOLOGY AND SOILS

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

The California Geological Survey (CGS) has mapped Seismic Hazard Zones that delineate areas susceptible to geologic hazards, including earthquakes, liquefaction, and landslides, that require additional investigation to determine the extent and magnitude of potential ground failure. According to the CGS, the project site is not located within any Seismic Hazard Zone.[19] As such, a project-specific geotechnical evaluation is not required for the proposed project.

The City has adopted the 2022 California Building Code (Title 24, California Code of Regulations), with local amendments, which provides for stringent construction requirements on projects in areas of high seismic risk. The design and construction of the proposed project is required to conform with, or exceed, current best standards for earthquake resistant construction in accordance with the 2022 California Building Code (or more recent applicable code) and with the generally accepted standards of geotechnical practice for seismic design in Northern California.

[19] California Geological Survey (CGS). 2021. *Earthquake Zones of Required Investigation*. September 23. Website: https://maps.conservation.ca.gov/cgs/EQZApp/app/. (accessed June 10, 2024).

a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides? ***(No Impact)***

The California Supreme Court concluded in its *CBIA v. BAAQMD* decision that "CEQA generally does not require an analysis of how existing environmental conditions will affect a project's future users or residents." With this ruling, CEQA no longer considers the impact of the environment on a project (such as the impact of existing seismic hazards on new project occupants) to be an environmental impact, unless the project could exacerbate an existing environmental hazard. The proposed project would not change existing seismic hazards and, therefore, would not exacerbate existing hazards related to surface fault rupture and seismic ground shaking. As such, the following discussions of seismic hazards are provided for informational purposes only.

Fault Rupture. Fault-rupture hazard is the hazard of ground breakage and displacement along fault traces during earthquakes. Fault rupture is generally expected to occur along active fault traces. Areas susceptible to fault rupture are delineated by the CGS Alquist-Priolo Earthquake Fault Zones and require specific geological investigations prior to development to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-induced ground failure. The project site is not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone.[20] The closest fault zone to the project site is the Hayward Fault Zone, located approximately 0.6-mile west of the project site. As such, it is unlikely that active traces of the Hayward fault are present within the project site, and the risk for a fault-rupture hazard to exist on the site is low. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault.

Ground Shaking. Seismic ground shaking generally refers to all aspects of motion of the earth's surface resulting from an earthquake and is normally the major cause of damage in seismic events. As previously discussed, the closest fault zone to the project site is the Hayward Fault Zone, located approximately 0.6 mile west of the project site. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. It is likely that the project site would experience strong ground shaking during the lifetime of the proposed project. The Association of Bay Area Governments has published maps predicting ground-shaking intensities for various earthquake scenarios in the Bay Area. Three different scenarios were modeled for the Hayward fault: a moment-magnitude-7.1 earthquake on the northern segment, a moment-magnitude-7.0 earthquake on the southern segment, and a moment-magnitude-7.3 earthquake on the entire length of the Hayward fault. Each of these models

[20] California Department of Conservation (DOC). *DOC Maps: Geologic Hazards, Seismic Hazards Program: Alquist-Priolo Fault Hazard Zones*. Website: https://maps.conservation.ca.gov/geologichazards/DataViewer/index.html (accessed June 10, 2024).

predicts extreme ground shaking in the vicinity of the site. The probability of a large earthquake on the Hayward fault is believed to be high during the life of the proposed project.

The risk of ground shaking impacts is reduced through adherence to the design and materials standards set forth in the 2022 California Building Code (CBC). Therefore, compliance with the existing building codes, as described above, would ensure that potential impacts related to seismic ground shaking would be reduced to the extent feasible.

It is acknowledged that seismic hazards cannot be completely eliminated, even with site-specific geotechnical design and advanced building practices. However, the seismic design standards of the 2022 CBC are intended to prevent catastrophic building failure in the most severe earthquakes currently anticipated. Therefore, compliance with the existing building codes, described above, would ensure that people or structures would not be adversely affected by earthquake-induced ground shaking.

Seismic-Related Ground Failure and Liquefaction. Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. During ground shaking, these soils lose strength and acquire a "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy. According to CGS, the project site is not located within a Seismic Hazard Zone for seismically-induced liquefaction.[21] In addition, final grading, foundation, and building plans must be designed in accordance with the 2022 CBC. These designs would include measures that would address, as necessary, the potential for differential settlement related to liquefaction. Therefore, compliance with the existing regulations would ensure that people or structures would not be adversely affected by liquefaction associated with ground shaking.

Landslides. Seismically-induced landslides occur as the rapid movement of large masses of soil on unstable slopes during an earthquake. According to CGS, the project site is not located within a Seismic Hazard Zone for seismically-induced landslides.[22] Therefore, the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

b. Would the project result in substantial soil erosion or the loss of topsoil? ***(Less Than Significant Impact)***

Soil erosion, which is discussed in detail in Section 3.8, Hydrology and Water Quality, could occur during project grading and construction. As discussed in Section 3.8, compliance with *COA: Stormwater Requirements* and *COAs: Public Works*, including implementation of best management practices (BMPs) that address soil erosion during construction, would ensure that potential impacts related to erosion of topsoil during construction would be less than significant.

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21 California Geological Survey. 2021. Op. cit.

22 Ibid.

At project completion, approximately 3,943 square feet of the project site would be impervious surface area and not prone to onsite erosion as no soil would be included in these areas. The remaining portion of the site would consist of pervious surface area, which would contain landscaping that would minimize on-site erosion by stabilizing the soil. Therefore, onsite erosion impacts would be minimal. Additionally, compliance with Municipal Regional Permit (MRP) requirements and standard conditions of approval require applicants to establish and maintain drainage patterns so as to not adversely affect adjacent properties and rights-of-way. For these reasons, potential on- and off-site erosion impacts during project operation would be less than significant.

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

As discussed above under Threshold 3.5.b, the proposed project would not be susceptible to landslide or liquefaction because the project site is not located within a mapped landslide or liquefaction zone. In addition, the proposed project's required compliance with existing regulations, including the 2022 CBC, would reduce the potential risks to people and structures. Final grading, foundation, and building plans would be designed in accordance with the 2022 CBC (or more recent applicable code). Therefore, compliance with the existing regulations would ensure that the potential impacts associated with potential landslide, liquefaction, or lateral spreading would be less than significant.

Subsidence or collapse can result from the removal of subsurface water resulting in either catastrophic or gradual depression of the surface elevation of the project site. As discussed in Section 1.0, Project Information, the maximum depth of excavation is expected to be 5 feet below the ground surface. According to the Phase 1 Environmental Site Assessment (ESA) prepared for the proposed project,[23] the depth to groundwater at the project site is between 6 and 24 feet bgs. As a result, temporary dewatering of deeper groundwater from excavations is not anticipated to be necessary during construction. The dewatering of shallow excavations does not cause significant ground subsidence or collapse. Therefore, potential impacts related to subsidence or soil collapse would be less than significant.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? ***(Less Than Significant Impact)***

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. Plasticity indexes greater than 15 usually indicate a swelling problem may exist, and the percent

[23] AEI Consultants. 2021. *Phase 1 Environmental Site Assessment, 2942 College Avenue, Berkeley, Alameda County, California, 94705.* June 9.

swell generally increase with the plasticity indexes.[24] In general, clays have a higher plasticity index, silts have a lower plasticity index, and soils with a plasticity index of 0 typically have little or no silt or clay.

According to the U.S. Department of Agriculture Natural Resource Conversation Service Web Soil Survey, the project site is entirely underlain by the Urban land-Tierra complex, 20 to 5 percent slopes.[25, 26] The Urban land-Tierra complex typically consists of loam in the first 12 inches, clay between 12 to 32 inches below the ground surface, and sandy clay loam between 32 and 60 inches below the ground surface.[27] This complex is well to moderately drained and the depth to restrictive feature (i.e., bedrock) is more than 80 inches.[28]

As the project site is underlain by the Urban land-Tierra complex, which consists in part of clay and sandy clay loam, the project site is underlain by a moderately expansive material, with a corresponding moderate potential for shrink/swell behavior with changes in moisture content. However, the proposed project would be required to comply with the 2022 CBC, which would ensure that the proposed project would not be affected by expansive soils. In addition, final grading, foundation, and building plans would be designed in accordance with the 2022 CBC and would include measures to either: (1) excavate the existing fill materials that are susceptible to expansion and either replace the materials with engineered fill or further evaluate the possible reuse of the materials as engineered fill; or (2) design foundations and other improvements to withstand the shrinking and swelling cycles of the soils without causing significant damage. These measures would be incorporated into the proposed project as conditions of approval. Therefore, compliance with the existing 2022 CBC would ensure that the potential impacts associated with expansive soils would be less than significant.

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 waste water? ***(No Impact)***

The project site would be served by a wastewater conveyance system maintained by the City and would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, the proposed project would have no impact related to septic tanks or alternative wastewater disposal systems.

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24 Federal Highway Administration (FHWA). 1977. *An evaluation of expedient methodology for identification of potentially expansive soils.* Report No. FHWA-RD-77-94. June.

25 U. S. Department of Agriculture Natural Resource Conversation Service. 2023a. *Web Soil Survey.* Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed June 10, 2024).

26 A "complex" consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

27 U.S. Department of Agriculture Natural Resource Conversation Service. 2023b. *Web Soil Survey, Report - Map Unit Description: 150 – Urban land-Tierra complex, 2 to 5 percent slopes.* Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed June 10, 2024).

28 Ibid.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ***(Less Than Significant Impact)***

There are no identified paleontological resources or unique geologic features or sites within, or in the vicinity of, the project site. However, demolition, site preparation, and construction activities associated with the proposed project could adversely impact previously unidentified fossils. Such fossils, if present, could be identified during deep excavation. However, development projects that require a use permit are required to comply with *COA: Paleontological Resources*, which addresses this potential impact. Implementation of *COA: Paleontological Resources* would ensure that this impact would be less than significant, as paleontological resources would be properly documented and protected if encountered during project construction.

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

Implementation of the appropriate procedures required by *COA: Paleontological Resources* for the treatment of paleontological resources would ensure that these resources are protected if encountered at the project site during construction, by including stop work procedures in the event of a find as well as handling procedures. With this condition of approval in place, the project would have a less than significant impact on paleontological resources.

3.6 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?	☐	☐	☒	☐

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous oxide (N_2O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulfur hexafluoride (SF_6).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ***(Less Than Significant Impact)***

This section describes the proposed project's construction- and operational-related GHG emissions and contribution to global climate change. The BAAQMD has not addressed emission thresholds for construction in their CEQA Guidelines; however, the BAAQMD encourages quantification and disclosure. Thus, construction emissions are discussed in this section.

Construction Activities. Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from onsite construction activities would vary daily as construction activity levels change.

The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that construction of the proposed project would generate approximately 255.2 metric tons of CO_2e. Implementation of *COA: Public Works – Implement BAAQMD-Recommended Measures During Construction*, as identified under Threshold 3.1.b, Air Quality, would reduce GHG emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment. This measure is implemented by the City and the Air District to ensure that GHG emissions would be less than significant. In addition, construction activities would be minimal and GHG emissions generated during construction of the proposed project would be short term in nature, lasting only for the duration of the construction period. Since GHG emissions associated with construction activities would not represent a long-term source of GHG emissions and would cease once construction is completed, project construction impacts associated with GHG emissions would be less than significant.

Operational Emissions. In April 2023, the BAAQMD adopted the 2022 CEQA Guidelines[29] which identify applicable GHG significance thresholds. These thresholds evaluate a project based on its effect on California's efforts to meet the State's long-term climate goals. Applying this approach, the BAAQMD identifies and provides supporting documentation, outlining the necessary requirements that new land use development projects must implement to achieve California's long-term climate goal of carbon neutrality by 2045. Based on the analysis, the BAAQMD found that new land use development projects need to incorporate specified design elements to contribute their "fair share" toward implementation of the goal of carbon neutrality by 2045. If a project is designed and built to incorporate the identified design elements, then it would contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and an agency reviewing the project under CEQA can conclude that the project will not make a cumulatively considerable contribution to global climate change. The document concludes that if a project does not

[29] Bay Area Air Quality Management District (BAAQMD). 2023. *California Environmental Quality Act Air Quality Guidelines.* April.

incorporate these design elements, it should be found to result in a significant climate impact because it would hinder California's efforts to address climate change.

According to BAAQMD's 2022 CEQA Guidelines, a project would have a less than significant impact related to GHG emissions if it would do either of the following:

a. Include, at a minimum, the following project design elements:

    1. Buildings

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

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

    2. Transportation

        a. Achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted SB743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's *Technical Advisory on Evaluating Transportation Impacts in CEQA*:

            1. Residential projects: 15 percent below the existing VMT per capita
            2. Office projects: 15 percent below the existing VMT per employee
            3. Retail projects: no net increase in existing VMT

        b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

b. Or be consistent with a local GHG reduction strategy that meets the criteria under *State CEQA Guidelines* Section 15183.5(b).

The City's Climate Action Plan (CAP) does not meet the State's requirements for a local GHG reduction strategy; therefore, the City's CAP would not be applicable for CEQA streamlining under the BAAQMD thresholds. This section evaluates the proposed project's consistency with the BAAQMD's project design elements.

Natural Gas Usage. According to the BAAQMD, a less than significant GHG impact would occur if the project does not include natural gas appliances or natural gas plumbing. The proposed project would be all-electric and would not include the use of natural gas. Therefore, the proposed project would be consistent with the BAAQMD's project design element related to natural gas and would be consistent with the BAAQMD's GHG emission thresholds.

Energy Usage. The project must not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines*. Energy use consumed by the proposed project would be associated with electricity consumption and fuel used for vehicle trips associated with the project. Energy consumption was estimated for the project using default energy intensities by land use type in the CalEEMod output. CalEEMod output sheets are provided as Appendix A of this document.

As discussed previously in Section 3.4, Energy, the all-electric building design would result in decreasing emissions as California's grid becomes cleaner, and once the grid consists of 100 percent renewable generation sources, the building would have zero operational emissions associated with electricity usage. In addition to the all-electric design, the proposed project would be required to comply with the latest California Energy Code and CALGreen standards, including any locally adopted amendments, and would include solar panels, which would help to reduce GHG emissions.

In addition, the proposed project would result in energy usage associated with gasoline for project-related trips. The proposed project would generate approximately 109 average daily trips. Based on the total fuel usage in Alameda County and the minimal increase in average daily trips, vehicle trips associated with the proposed project would negligibly increase the annual fuel use in Alameda County. Additionally, the project site is served by an 8-foot sidewalk along College Avenue and is located within 0.5 mile of several intersecting major bus routes, including Lines 6, 7, 79, 800, 851, and E. The proposed project would provide four long-term and two short-term bicycle parking spaces for the proposed residential uses in a covered bike storage area. Therefore, the project would support the ability of residents and employees to use alternative modes of transportation.

As such, based on this analysis, as required under *CEQA Guidelines* Sections 21100(b)(3) and 15126.2(b), the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy and energy efficiency measures into building design, equipment use, and transportation. As such, the proposed project would be consistent with this design element.

Vehicle Miles Traveled. To meet the BAAQMD's VMT threshold, the project must achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan or meet a locally adopted SB 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's (OPR) 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*. As discussed in Section 3.11, Transportation, the project site is within a transit priority area (TPA) and in a low VMT area (VMT per resident is at least 15 percent below the Bay Area average). In addition, the proposed project is a small project since it is comprised of six residential units and 1,481 square feet of retail use. As such, the proposed project meets the City's VMT screening criteria. Therefore, based on its location and size, the proposed project is presumed to have a less than significant VMT impact. Therefore, the proposed project would be consistent with this design element.

Electric Vehicle Requirements. This criterion requires that the project achieve compliance with off-street electric vehicle requirements in the most recently adopted version of the CALGreen Tier 2 measures, or BMC Section 19.37.040, whichever is greater. The proposed project would not provide any vehicle parking spaces; therefore, this project design feature would not be applicable to the proposed project.

As discussed above, the proposed project would not conflict with the BAAQMD's project design elements related to natural gas, energy, VMT, or electric vehicle requirements. Therefore, the proposed project would be consistent with the BAAQMD's GHG emission thresholds. As such, the proposed project would not generate GHG emissions that would have a significant effect on the environment and this impact would be less than significant.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ***(Less Than Significant Impact)***

The City adopted a Climate Action Plan (CAP)[30] in 2009 with the goal of reducing communitywide GHG emissions by 80 percent below 2000 levels by 2050. The core recommendation strategies and actions of the CAP are based on the following topics:

- Sustainable Transportation and Land Use
- Building Energy Use
- Waste Reduction and Recycling
- Community Outreach and Empowerment
- 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, the City actively uses it for guiding GHG emission reduction efforts. Since publication of the CAP, the City added additional climate goals to support implementation of the CAP:[31]

- 100 percent renewable electricity by 2035
- Net-Zero Carbon Emissions by 2045, in alignment with Governor Brown's Executive Order B-55-18
- Declared a Climate Emergency and resolved to become a Fossil Fuel Free City
- Cities Race to Zero Campaign: Committed to reducing emissions 60.5 percent from 2018 levels by 2030, an emission reduction target that reflects Berkeley's fair share of the 50 percent global reduction in CO_2e

30 Berkeley, City of. 2009. *City of Berkeley Climate Action Plan*. June.

31 Berkeley, City of. 2022a. *City of Berkeley 2023–2031 Housing Element Update Environmental Impact Report*. August.

The proposed project would redevelop the project site with a two mixed-use buildings containing six residential units and 1,481 square feet of commercial space on an infill site that would locate residents and employees near existing residential and commercial uses. The project site is served by an 8-foot sidewalk along College Avenue and is located within 0.5 mile of several intersecting major bus routes, including Lines 6, 7, 79, 800, 851, and E. The proposed project would provide four long-term and two short-term bicycle parking spaces for the proposed residential uses in a covered bike storage area. Therefore, the project would support the ability of residents and employees to use alternative modes of transportation. Additionally, as further discussed in Section 3.11, Transportation, given the location of the proposed project and proposed improvements, the proposed project would result in a less than significant VMT impact. Therefore, the proposed project would not conflict with sustainable transportation and land use measures identified in the CAP.

As discussed previously in Section 3.4, Energy, the all-electric building design would result in decreasing emissions as California's grid becomes cleaner, and once the grid consists of 100 percent renewable generation sources, the building would have zero operational emissions associated with electricity usage. In addition to the all-electric design, the proposed project would be required to comply with the latest California Energy Code and CALGreen standards, including any locally adopted amendments, and would include solar panels, which would help to reduce energy consumption and greenhouse gas emissions. The proposed project would also include low flow plumbing fixtures and landscape irrigation. The proposed project would be consistent with the CalRecycle Waste Diversion and Recycling Mandate which would reduce solid waste production by 75 percent and the Berkeley Green Code which also requires 100 percent of concrete, asphalt, and land clearing debris to be reused and recycled. Therefore, the proposed project would not conflict with any of the building energy use or waste and recycling measures identified in the CAP. In addition, *COA: Construction and Demolition Diversion and COA: Low-Carbon Concrete* would require implementation of a Construction Waste Management Plan and compliance with the Berkeley Green Code.

> ***COA: Construction and Demolition Diversion.*** Applicant shall submit a Construction Waste Management Plan that meets the requirements of BMC Chapter 19.37 including 100 percent diversion of asphalt, concrete, excavated soil and land-clearing debris and a minimum of 65 percent diversion of other nonhazardous construction and demolition waste.
>
> ***COA: Low-Carbon Concrete.*** The project shall verify compliance with the Berkeley Green Code (BMC Chapter 19.37) including use of concrete mix design with a cement reduction of at least 25 percent.

Given the above, the proposed project would be consistent the City's CAP, commitment to carbon neutrality by 2045, and the Climate Emergency declaration and would implement measures designed to reduce GHG emissions. Therefore, the proposed project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

3.7 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 one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

The analysis in this section is based in part on the *Phase I Environmental Site Assessment* prepared for the proposed project (Phase I ESA).[32] This report is provided as Appendix D.

*a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? **(Less Than Significant Impact)***

The proposed project would result in the demolition of the existing structures and surface pavements on the project site, and the redevelopment of the site with a two mixed-use buildings containing a total of 1,481 square feet of commercial space and six residential units.

Hazardous materials (e.g., oil, grease, fuels, paint) would be transported and used onsite for proposed construction activities. The operational phase of the proposed project may also include storage and use of small amounts of hazardous materials associated with commercial uses (e.g., cleaning products) on the project site. The routine transport, use, or disposal of these hazardous materials could pose a potential hazard to construction workers and future employees working at the project site as they would be handling the hazardous materials and could therefore be exposed

[32] AEI Consultants. 2021. *Phase 1 Environmental Site Assessment, 2942 College Avenue, Berkeley, Alameda County, California, 94705.* June 9. (Appendix D)

through inhalation of vapors, direct contact with skin, or accidental ingestion. The routine transport, use, or disposal of these hazardous materials would not pose a significant hazard to the public or environment unless the hazardous materials were accidentally spilled or released into the environment, as discussed under Threshold 3.7.b, below.

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

In 1990 and 1994, the federal Hazardous Material Transportation Act was amended to improve the protection of life, property, and the environment from the inherent risks of transporting hazardous material in all major modes of commerce. The United States Department of Transportation (USDOT) developed hazardous materials regulations, which govern the classification, packaging, communication, transportation, and handling of hazardous materials, as well as employee training and incident reporting. The transportation of hazardous materials is subject to USDOT, Resource Conservation and Recovery Act (RCRA), and State regulations. The California Highway Patrol, the California Department of Transportation (Caltrans), and the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) are responsible for enforcing federal and State regulations pertaining to the transportation of hazardous materials.

Construction of the proposed project would result in the generation of various waste materials that would require recycling and/or disposal, including some waste materials that may be classified as hazardous waste. Hazardous wastes would be required to be transported by a licensed hazardous waste hauler and disposed of at facilities that are permitted to accept such materials as required by USDOT, RCRA, and State regulations.

In addition, the proposed project would be required to comply with City *COA: Toxics*, including preparation of a site-specific Soil and Groundwater Management Plan (SGMP) (*COA: Toxics[D]*), preparation of a hazardous materials survey prior to demolition (*COA: Toxics[E]*), and a Hazardous Materials Business Plan (HMBP) in compliance with BMC Section 15.12.040 and California Health & Safety Code, Chapter 6.95 Div. 20, if the proposed project stores or handles hazardous materials during construction in aggregate quantities equal to or greater than 55 gallons for liquids,

500 pounds for solids, or 200 cubic feet of compressed gases, or generates any quantity of hazardous waste (*COA: Toxics[F]*).

> ***COA: Toxics.*** The applicant shall contact the Toxics Management Division (TMD) at 1947 Center Street or (510) 981-7470 to determine which of the following documents are required and timing for their submittal:
>
> A. **Phase I and Phase II Environmental Site Assessment (ESA) (per ASTM 1527).** A recent Phase I ESA (less than 2 years old) shall be submitted to the Toxics Management Division for developments for: all new commercial, industrial and mixed-use developments and all improvement projects that require work 5 or more feet below grade, and all new residential buildings with more than four dwelling units located in the Environmental Management Area (or EMA). The EMA can be viewed at: City of Berkeley Community GIS Portal (arcgis.com)
>
> B. Depending on the findings in the Phase I, a Phase II or additional investigation may be necessary. Any available soils and groundwater analytical data available for projects listed in this section must also be submitted to TMD.
>
> C. **Environmental Site Clearance.** The applicant shall provide environmental screening clearance from either the San Francisco Bay Regional Water Quality Control Board (RWQCB), Department of Toxic Substances Control (DTSC), or the Alameda County Department of Environmental Health's Local Oversight Program (LOP). Clearance from one of these regulatory agencies will ensure that the property meets development investigation and cleanup standards for the specific use proposed on the property. Environmental screening clearance shall be submitted to the City of Berkeley's Toxics Management Division prior to issuance of any building permits.
>
> D. **Soil and Groundwater Management Plan.** A site-specific Soil and Groundwater Management Plan (SGMP) shall be submitted to Toxics Management Division (TMD) for all non-residential projects, and residential or mixed-use projects with more than four dwelling units, that: (1) are in the Environmental Management Area (EMA), as shown on the most recent City of Berkeley EMA map, and (2) propose any excavations deeper than 5 feet below grade or if significant soils removal is anticipated. The SGMP shall be submitted to the TMD with the project's building permit application and shall be approved by TMD prior to issuance of the building permit.
>
> The SGMP shall comply with the hazardous materials and waste management standards required by BMC Section 15.12.100, the stormwater pollution prevention requirements of San Francisco Bay Regional Water Quality Control Board's Order No. R2-2009-0074, California hazardous waste generator regulations (Title 22 California Code of Regulations (CCR)

66260 et seq.), and the East Bay Municipal Utility District's Ordinance 311, and shall include the following:

i. procedures for soil and groundwater management including identification of pollutants and disposal methods;

ii. procedures to manage odors, dust and other potential nuisance conditions expected during development;

iii. notification to TMD within 24 hours of the discovery of any previously undiscovered contamination; and

iv. the name and phone number of the individual responsible for implementing the SGMP and who will respond to community questions or complaints.

TMD may require additional information or impose additional conditions as deemed necessary to protect human health and the environment. All requirements of the approved SGMP shall be deemed conditions of approval.

E. **Demolitions & Renovations – Building Materials Survey.** A hazardous materials survey for building materials and plans on hazardous materials and hazardous waste removal and disposal is required and must be prepared by qualified professionals, and submitted to the Toxics Management Division (TMD) prior to issuance of the building permit.

i. The survey shall include the identification of all materials to be disturbed for lead-based paints, PCB containing equipment and caulking, hydraulic fluids, refrigerants, treated wood, and mercury containing devices (including fluorescent light bulbs and mercury switches), asbestos and other hazardous materials and chemicals.

ii. If asbestos is identified, Bay Area Air Quality Management District Regulation 11-2-401.3 a notification must be made and the J number must be made available to the City of Berkeley Permit Service Center. Contractors must follow state regulations where there is asbestos-related work involving 100 square feet or more of asbestos containing material (8 Cal. Code Regs. §1529, §341.6 et seq.)

iii. The report to the TMD shall include, in addition to the survey, plans on hazardous materials and hazardous waste removal and disposal that comply with State and Federal codes including California Code of Regulations (CCR) 66260 et seq.

iv. Documentation evidencing disposal of hazardous waste in compliance with the survey shall be submitted to TMD within 30 days of the completion of the demolition.

Please note, the PCB Screening Form required by Public Works, Engineering, is a separate requirement and does not address the PCB identification requirement of the Toxics Management Division.

F. **Hazardous Materials Business Plan.** A Hazardous Materials Business Plan (HMBP) in compliance with BMC Section 15.12.040 and California Health & Safety Code, Chapter 6.95 Div. 20, shall be submitted to the Toxics Management Division through the California Environmental Reporting System: http://cers.calepa.ca.gov/ for chemicals used or stored on site during construction that exceed reporting thresholds. The reporting is required if your facility stores or handles hazardous materials in aggregate quantities equal to or greater than 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet of compressed gases, or generates any quantity of hazardous waste. This includes welding gases, emergency generator fuel, paints, etc.

Additionally, the business occupant must submit an HMBP within 30 days of starting operations.

G. **Petroleum Storage.** A Spill Prevention, Control, and Countermeasure (SPCC) Plan is required to be prepared and implemented for facilities with any one of the following:

i. aggregate aboveground petroleum storage capacities of 1,320 gallons or more stored in aboveground storage containers, tanks, oil-filled equipment, or

ii. one or more tank(s) in an underground area (TIUGA) with petroleum storage capacities of 55 gallons or greater. More information on TIUGAs can be found here: https://osfm.fire.ca.gov/divisions/pipeline-safety-and-cupa/certified-unified-program-agency-cupa/aboveground-petroleum-storage-act/tank-in-an-underground-area-tiuga/

The SPCC plan must be prepared prior to beginning operations and you must submit facility information to Toxics Management Division (TMD) through the California Environmental Reporting System: http://cers.calepa.ca.gov/. The SPCC plan will be reviewed during the site inspection and shall not be submitted in CERS or to the TMD.

Compliance with *COA: Toxics* and the regulations described above, including OSHA and Cal/OSHA regulations, CCR Title 8; and DOT, RCRA, and State regulations, would ensure that the proposed project would not create a significant hazard to the public or the environment associated with the

routine transport, use, or disposal of hazardous materials by ensuring that these materials are properly handled during construction of the proposed project. Therefore, this impact would be less than significant.

Occupation of the proposed commercial and residential uses is expected to utilize relatively small amounts of hazardous materials, such as chemicals associated with fuel for landscape maintenance equipment, solvents, cleaning products, pesticides/fertilizers, and other similar chemicals. These materials are substantially similar to household chemicals and solvents already in general and wide use throughout the city and in the vicinity of the project site. Compliance with all applicable federal, State, and local regulations would ensure the project would not create a significant hazard to the public or environment from the routine transportation, use, and disposal of hazardous materials during operation of the proposed project. Therefore, this impact would be less than significant.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ***(Less Than Significant with Mitigation Incorporated)***

The public and/or the environment could be affected by the release of hazardous materials from the proposed project into the environment, by: (1) exposing workers and/or the public to potentially contaminated soil and groundwater during construction and/or operation of the project, or (2) exposing workers and/or the public to hazardous building materials (e.g., Polychlorinated Biphenyls [PCBs], lead paint, asbestos) during demolition of the existing commercial structures. However, development projects that require a use permit are required to comply with *COA: Toxics* that addresses each of these potential impacts (see Threshold 3.7.a, above).

On-site Hazardous Building Materials. The project site was developed with the existing commercial structure in 1900 and occupied by dry cleaning facilities as early as 1910. Due to the age of the building on the project site, asbestos-containing materials (ACMs) and/or lead-based paints (LBP) may be present in the buildings.[33] Demolition activities could cause the release of asbestos and lead into the environment if ACMs and LBPs are present in the buildings.

COA: Toxics(E), as outlined above, requires that prior to issuance of a building permit, a hazardous materials survey for building materials and plans on hazardous materials and hazardous waste removal and disposal is required and must be prepared by qualified professionals. The survey shall include, but not be limited to, the identification of all materials to be disturbed for lead-based paints, PCB containing equipment and caulking, hydraulic fluids, refrigerants, treated wood, and mercury containing devices (including fluorescent light bulbs and mercury switches), asbestos and other hazardous materials and chemicals. The survey shall include plans on hazardous waste or hazardous materials removal, reuse or disposal procedures to be implemented that fully comply with state hazardous waste generator requirements (22 CCR 66260 et seq). The survey becomes a condition of any building or demolition permit for the proposed project. Documentation evidencing disposal of hazardous waste in compliance with the survey shall be submitted to TMD within 30 days of the completion of the demolition. If asbestos is identified, BAAQMD Regulation 11-2-401.3

[33] AEI Consultants. 2021. *Phase 1 Environmental Site Assessment, 2942 College Avenue, Berkeley, Alameda County, California, 94705.* June 9.

notification must be made and the BAAQMD Job Number (or "J Number") must be made available to the City of Berkeley Permit Service Center. Compliance with the requirements described above and outlined in *COA: Toxics(E)* would ensure that potential impacts related to hazardous building materials would be less than significant.

Hazardous Soil and Groundwater Conditions. The project site's history of hazardous conditions was summarized, and current hazardous conditions were investigated as part of the Phase I Environmental Site Assessment (ESA)[34] prepared for the proposed project. The project site was operated by various dry-cleaning facilities from 1910 through 2018 and was the subject of several environmental investigations and subsequent remediation activities. Three underground storage tanks (USTs) were removed from the subject property in 1993, including one heating-oil UST (70-gallon) and two Stoddard solvent USTs (250-gallon and 1,000-gallon). In addition, one Stoddard solvent UST (470-gallon) was reportedly discovered in December 1994 and removed in 1995. The USTs removed from the project site were reported to have stored Stoddard solvent (petroleum naphtha) during the operation of College Cleaners and predecessor dry cleaners operating prior to 1995. The former dry cleaners were also noted to have used and stored tetrachloroethene (PCE).

Soil investigations were performed between 1992 and 1995 and included collection of approximately 53 soil samples from soil borings and test pits. In June 1997, soil excavation was performed to remove petroleum hydrocarbon-impacted soil from the area of the former 470-gallon Stoddard solvent UST. The excavation extended to depths of 14 feet bgs and included the removal of approximately 200 cubic yards of impacted soil. Groundwater was not encountered in the excavation cavity; however, total petroleum hydrocarbons-gasoline (TPHg) and oil and grease were detected in the confirmation samples.

Groundwater investigations were first initiated in 1993 and 1994. Soil gas investigations were first conducted at the project site in response to observed PCE in a groundwater monitoring well in November 2000. Soil gas investigations were performed to identify and characterize potential areas where PCE may have been released to the subsurface. Soil gas sample results revealed the presence of soil gas in PCE at a maximum concentration of 36 micrograms per liter in the rear lot and along the sewer line. No other VOCs other than PCE were detected in the soil gas samples. Soil gas data indicated PCE may have been released to shallow soil via possible leaks of solvent discharged into an underground sewer line and/or surface spills in the area directly behind the property building. Evaluation of site data indicated possible separate sources for the releases of petroleum hydrocarbons and PCE to subsurface soils.

Prior site investigations concluded that there were separate sources for the petroleum hydrocarbons and PCE, with recent sampling indicating that the PCE did not appear to be related to historical operations of former on-site USTs. Based on this notion, prior environmental investigations recommended case closure of the Stoddard solvent release from the former on-site USTs in 2002. The Stoddard solvent case was granted closure by the TMD in a letter dated December 30, 2004, with the condition that any redevelopment of the subject property will require TMD approval. In the closure letter, the TMD indicated that the property owner should continue corrective measures assessment and monitoring for the PCE investigation. No other work appears to

[34] AEI Consultants. 2021. Op. cit.

have been performed at the subject property from 2005 to 2020. The closed Stoddard solvent case is representative of a Controlled Recognized Environmental Conditions (CREC).

The project site, identified as College Cleaners, is listed as a leaking UST (LUST) site with an environmental interest end of December 28, 2004, and a Cleanup Program site with an environmental start date of December 5, 1992. Additional site investigation activities were initiated in 2020 and 2021 in order to collect recent site data as part of the open PCE release case (open Cleanup Site case) transfer oversight process from TMD to the San Francisco By Regional Water Quality Control Board (RWQCB). Soil samples were collected in December 2020 and TPHg was found by a former UST (the only area of impacted soil with chemicals of concern [COCs] that exceeded environmental screening levels [ESLs]). Elevated soil gas readings above current ESLs were presented at the rear of the building. Based on the concentrations of COCs in recent soil vapor sampling, the Phase I ESA prepared for the proposed project indicated that vapor mitigation may be required with respect to site redevelopment, and that additional investigation may follow once the current structure has been removed. The open Cleanup Site case constitutes a Recognized Environmental Condition (REC) for the project site.

The proposed project is located within the City's EMA.[35] These areas in the City are known or suspected to have groundwater contamination.[36] *COA: Toxics(D)* requires that an SGMP be prepared for all residential or mixed use projects with four or more units, that: (1) are located within the EMA; and (2) propose any excavations deeper than 5 feet below grade. The proposed project is a mixed use development within the EMA and would require excavation around approximately 5 feet below grade for construction of utilities and foundations, therefore preparation of a SGMP would be required for the proposed project. TMD may impose additional conditions as deemed necessary. All requirements of the approved SGMP would be conditions of approval of the requested Use Permits. Preparation and implementation of a SGMP in accordance with the requirements of *COA: Toxics(D)* would ensure that potential impacts associated with disturbance and excavation of potentially contaminated soil and groundwater at the project site would be less than significant.

As discussed above, based on the concentrations of COCs in recent soil vapor sampling, the Phase I ESA prepared for the proposed project indicated that vapor mitigation may be required. Therefore, a vapor intrusion mitigation system (VMS), as described in the Vapor Intrusion Mitigation System Basis of Design report,[37] would be required, as detailed in **Mitigation Measure HAZ-1**. The VMS would mitigate the potential vapor intrusion risk at the project site from the presence of COCs in soil gas beneath the project site.

Mitigation Measure HAZ-1 Prior to the issuance of any construction or building permit, the project sponsor shall submit evidence to the City of Berkeley Land

35 Berkeley, City of. n.d.-b. *City of Berkeley Community GIS Portal.* Website: https://berkeley.maps.arcgis.com/apps/webappviewer/index.html?id=2c7dfafbb1f64e159f4fdf28a52f51c6&showLayers=Berkeley%20Parcels;Environment (accessed June 14, 2024).

36 Berkeley, City of. n.d.-a. *Berkeley Requirements for Building and Construction*. Website: https://Berkeleyca.gov/construction-development/permits-design-parameters/design-parameters/berkeley-requirements-building (accessed June 14, 2024).

37 AEI. 2023. *Vapor Intrusion Mitigation System Basis of Design.* August 14.

Use Planning Division that a vapor intrusion mitigation system (VMS), as described in the Vapor Intrusion Mitigation System Basis of Design report prepared by AEI, was incorporated into the project plans. This measure shall be completed to the satisfaction of the City of Berkeley Public Works Department, or designee.

Preparation and implementation of an SGMP for excavation and potential dewatering activities (as required by the TMD and described above) and implementation of **Mitigation Measure HAZ-1** requiring a VMS would ensure that the proposed project would result in less than significant impacts to the public or the environment related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be less than significant with mitigation incorporated.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ***(Less Than Significant Impact)***

Willard Middle School, a public school located at 2425 Stuart Street; The Academy, a private school located at 2722 Benvenue Avenue; and Maybeck High School, a public school located at 2727 College Avenue, are less than 0.25 mile from the project site. However, compliance with federal, State, and local regulations for the management of hazardous materials, as discussed under Thresholds 3.7.a and 3.7.b, above, would ensure that potential impacts to nearby schools associated with hazardous materials emissions and use at the project site would be less than significant.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ***(Less Than Significant with Mitigation Incorporated)***

The provisions of Government Code Section 65962.5 require the DTSC, the State Water Resources Control Board (SWRCB), the California Department of Health Services, and the California Department of Resources Recycling and Recovery (CalRecycle, formerly the California Integrated Waste Management Board) to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, LUST sites, and/or hazardous materials releases to the Secretary of Cal/EPA.

The project site is listed on the SWRCB's Geotracker database as a site that has contained an UST.[38] The project site is therefore included on lists of hazardous materials release sites compiled pursuant to Government Code Section 65962.5. As discussed under Thresholds 3.7.a and 3.7.b above, the project site has been the subject of several environmental investigations and remediation activities performed under oversight of regulatory agencies. Preparation and implementation of an SGMP for excavation and potential dewatering activities and implementation of the VMS as required by **Mitigation Measure HAZ-1** would ensure that the proposed project would result in less than

[38] State Water Resources Control Board (SWRCB). 2021. *College Cleaners (Former) (SL0600115988).* Website: https://geotracker.waterboards.ca.gov/profile_report?global_id=SL0600115988. (accessed June 2024).

significant impacts to construction workers, the surrounding public, future site occupants, and the environment related to past releases of hazardous materials into the environment. Impacts would be less than significant with mitigation incorporated.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? ***(No Impact)***

The project site is located approximately 8.3 miles north of the Oakland International Airport. The project site is not located within a public airport land use plan or within 2 miles of a public use airport.[39] The proposed project is not within the vicinity of a private airstrip. Therefore, the proposed project would not result in a safety hazard to people working or residing in the area due to the proximity of an airport.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ***(No Impact)***

The proposed project would be consistent with the policies outlined in the City of Berkeley General Plan's Disaster Preparedness and Safety Element and would not obstruct emergency evacuation routes. Ashby Avenue and College Avenue are the designated emergency access and evacuation routes in the project area.[40] Because the proposed project would not include any modifications to the existing roadways in the vicinity of the project site, implementation of the proposed project would not result in any impacts related to emergency access or an adopted emergency response plan. Therefore, the proposed project would have no impact on implementation of an adopted emergency response plan or emergency evacuation plan.

g. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? ***(No Impact)***

The project site is in an urban area and is not within or adjacent to a wildland fire hazard area. Therefore, the proposed project would not expose people or structures to a significant loss, injury or death involving wildland fires.

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

[40] Berkeley, City of. 2001. Op. cit.

3.8 HYDROLOGY AND WATER QUALITY

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

The analysis in this section is based in part on the *City of Berkeley C.3 Stormwater Requirements Checklist, Municipal Regional Stormwater Permit (MRP 3), Stormwater Controls for Development Project Checklist* prepared for the proposed project (Stormwater Requirements Checklist).[41] This report is provided as Appendix E.

*a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? **(Less Than Significant Impact)***

Regional Drainage. The project site is located within the Potter/Derby Creeks Watershed. The project site is located within an urban and built-up area of Berkeley, and no major hydrologic features are in the vicinity of the project site.

The Potter/Derby Creek Watershed includes Potter Creek, Derby Creek and several unnamed tributaries. Both Potter Creek and Derby Creek have been replaced by underground pipelines and culverts as part of the City's storm drainage system. The stream channels of these creeks and the tributaries have been almost completely filled in. The Potter/Derby Creek Watershed drains to the

41 KDA Studios. 2024. *City of Berkeley C.3 Stormwater Requirements Checklist, Municipal Regional Stormwater Permit (MRP 3), Stormwater Controls for Development Project Checklist*. January 31. (Appendix E)

Potter Street storm drain network (Potter line).[42] The Potter line discharges into San Francisco Bay at the terminus of Potter Street through a 7-foot by 9-foot culvert. The line passes between the Model Yacht Club Basin and Radio Tower Ponds via two 24-inch pipes and connects the storm drain with the Model Club Yacht Basin (within Aquatic Park).[43] Both tidal inflows and surface water runoff enter the Model Yacht Club Basin via the Potter line to varying degrees depending upon water levels in San Francisco Bay and the Aquatic Park lagoons, and the magnitude of storm events. The nearest existing storm drainpipes and inlets to the project site are located along College Avenue.

Regulatory Framework. The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) regulate water quality of surface water and groundwater bodies throughout California. In the City of Berkeley, the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB) is responsible for implementation of the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses for waterways and water bodies in the region. Section 303(d) of the federal Clean Water Act (CWA) requires that states identify water bodies including bays, rivers, streams, creeks, and coastal areas that do not meet water quality standards and the pollutants that are causing the impairment. Total Maximum Daily Loads (TMDLs) describe the maximum amount of a pollutant that a water body can receive while still meeting established water quality standards. A TMDL establishes limits for pollutant discharges into impaired water bodies. Central San Francisco Bay is listed as an impaired water body for several pollutants including chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, trash, selenium, mercury, chlorinated biphenyls (PCBs), dioxin compounds (including 2, 3, 7, 8-tetrachloro-dibenzodioxin [2, 3, 7, 8-TCDD]), furan compounds, and invasive species.[44]

Runoff water quality is regulated by the National Pollutant Discharge Elimination System (NPDES) Program (established through the federal Clean Water Act). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by State and federal statutes and regulations. Locally, the NPDES Program is administered by the San Francisco Bay RWQCB. NPDES requirements that would apply to both the construction-phase and the operation phase of the project are described below.

Construction. The proposed project includes demolition of the existing onsite structures and surface pavements and parking lots and construction of the mixed-use and residential buildings. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum

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

43 Berkeley, City of. 201. Op. cit.

44 State Water Resources Control Board (SWRCB). 2023. *2020-2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)*. Website: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.waterboards.ca.gov%2Fwater_issues%2Fprograms%2Ftmdl%2F2020_2022state_ir_reports_revised_final%2Fapx-a-303d-list.xlsx&wdOrigin=BROWSELINK (accessed June 14, 2024).

products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via storm water runoff into receiving waters (i.e., the Model Yacht Club Basin and Central San Francisco Bay).

Many areas in the City of Berkeley are known or suspected to have soil or groundwater contamination and are known as EMAs.[45] The project site is located within an EMA.[46] In addition, the proposed project would include the demolition of a structure subject to the Toxics Management Division's (TMD) Building Demolition requirements due to the presence of PCBs. As such, as part the TMD's standard conditions for a site in the EMA and required by City *COA: Toxics(E)*, a hazardous materials survey would be prepared for the proposed project prior to demolition activities.

During construction, the entire 0.15-acre (6,346-square feet) project site would be disturbed. Because construction of the proposed project would disturb less than 1 acre of soil, the proposed project is not subject to the requirements of the SWRCB's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2022-0057-DWQ, NPDES No. CAS000002) (Construction General Permit). However, the proposed project would be required to comply with the City COAs outlined below, including *COA: Stormwater Requirements and COAs: Public Works*.

In addition, the proposed project would implement construction BMPs including, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and "Good Housekeeping" BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. Construction BMPs applicable to the proposed project are detailed in the Stormwater Requirements Checklist completed for the proposed project.[47] In addition, provision C.6 of the RWQCB's Municipal Regional Stormwater Permit (MRP)[48] requires the City to implement a construction site inspection and control program at all construction sites, with follow-up and enforcement, to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters. Inspections must confirm implementation of appropriate and effective erosion and other construction pollutant controls by construction site operators/developers; and reporting must demonstrate the effectiveness of this inspection and problem solution. Compliance with COAs, as outlined below, including incorporation of construction BMPs to target and reduce pollutants of concern in stormwater runoff, would ensure that construction impacts related to violation of waste discharge requirements and water quality standards and degradation of water quality would be less than significant.

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45 Berkeley, City of. n.d.-a. *Berkeley Requirements for Building and Construction*. Website: https://berkeleyca.gov/construction-development/permits-design-parameters/design-parameters/berkeley-requirements-building (accessed June 14, 2024).

46 Berkeley, City of. n.d.-b. *City of Berkeley Community GIS Portal.* Website: https://berkeley.maps.arcgis.com/apps/webappviewer/index.html?id=2c7dfafbb1f64e159f4fdf28a52f51c6&showLayers=Berkeley%20Parcels;Environment (accessed June 14, 2024).

47 KDA Studios. 2024. *City of Berkeley C.3 Stormwater Requirements Checklist, Municipal Regional Stormwater Permit (MRP 3), Stormwater Controls for Development Project Checklist*. January 31.

48 San Francisco Bay Regional Water Quality Control Board. 2022. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008. May 11.

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

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

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

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

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

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

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

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

H. Most washing and/or steam cleaning must be done at an appropriately equipped facility that drains to the sanitary sewer. Any outdoor washing or pressure washing must be managed in such a way that there is no discharge or

soaps or other pollutants to the storm drain. Sanitary connections are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge.

I. All loading areas must be designated to minimize "run-on" or runoff from the area. Accumulated waste water that may contribute to the pollution of stormwater must be drained to the sanitary sewer or intercepted and pretreated prior to discharge to the storm drain system. The property owner shall ensure that BMPs are implemented to prevent potential stormwater pollution. These BMPs shall include, but are not limited to, a regular program of sweeping, litter control and spill cleanup.

J. Restaurants, where deemed appropriate, must be designed with a contained area for cleaning mats, equipment and containers. This contained wash area shall be covered or designed to prevent run-on or run-off from the area. The area shall not discharge to the storm drains; wash waters should drain to the sanitary sewer, or collected for ultimate disposal to the sanitary sewer. Employees shall be instructed and signs posted indicating that all washing activities shall be conducted in this area. Sanitary connections are subject to the review, approval and conditions of the waste water treatment plant receiving the discharge.

K. Sidewalks and parking lots shall be swept regularly to prevent the accumulation of litter and debris. If pressure washed, debris must be trapped and collected to prevent entry to the storm drain system. If any cleaning agent or degreaser is used, wash water shall not discharge to the storm drains; wash waters should be collected and discharged to the sanitary sewer. Discharges to the sanitary sewer are subject to the review, approval and conditions of the sanitary district with jurisdiction for receiving the discharge.

L. The applicant is responsible for ensuring that all contractors and sub-contractors are aware of and implement all stormwater quality control measures. Failure to comply with the approved construction BMPs shall result in the issuance of correction notices, citations, or a project stop work order.

COA: Public Works. All piles of debris, soil, sand, or other loose materials shall be covered at night and during rainy weather with plastic at least one-eighth millimeter thick and secured to the ground.

COA: Public Works. The applicant shall ensure that all excavation takes into account surface and subsurface waters and underground streams so as not to adversely affect adjacent properties and rights-of-way.

COA: Public Works. The project sponsor shall maintain sandbags or other devices around the site perimeter during the rainy season to prevent on-site soils from

being washed off-site and into the storm drain system. The project sponsor shall comply with all City ordinances regarding construction and grading.

COA: Public Works. Prior to any excavation, grading, clearing, or other activities involving soil disturbance during the rainy season the applicant shall obtain approval of an erosion prevention plan by the Building and Safety Division and the Public Works Department. The applicant shall be responsible for following these and any other measures required by the Building and Safety Division and the Public Works Department.

According to the Phase 1 ESA[49] prepared for the proposed project, the depth to groundwater at the project site is between 6 and 24 feet bgs. Groundwater dewatering is not anticipated to be required during construction; however, because the maximum depth of excavation is approximately 5 feet (just above the depth to groundwater), groundwater dewatering may occur if groundwater is encountered during excavation. Improper management and discharge of dewatering effluent into the storm drainage system or receiving waters could adversely affect water quality as contaminants and sediment may be present in the dewatering effluent.

For development projects within the EMA where dewatering is anticipated, the City's TMD has adopted specific requirements. Since dewatering activities can draw in contamination from outside areas, monitoring of the groundwater discharges may be required. The TMD may require dewatering and monitoring plans to ensure the discharge of clean water and the protection of the community from vapors or other health hazards. Additionally, where there is sufficient information indicating soil contamination is present, the TMD could require testing of excavation spoils and documentation of proper disposal. The specific requirements for the proposed project would be specified by the City as standard conditions of approval, as outlined in *COA: Toxics* (refer to Section 3.7, Hazards and Hazardous Materials). Additionally, as part the TMD's standard conditions for a site in the EMA, a Soil Management Plan would be prepared for the proposed project, which would establish the appropriate management practices for handling, treatment, and disposal of contaminated groundwater if encountered during construction. Compliance with the City of Berkeley requirements and implementation of a Soil Management Plan would be required as part of the conditions of approval for the proposed project and would ensure that contaminated groundwater is not discharged to surface water. Therefore, groundwater dewatering impacts related to violation of waste discharge requirements and water quality standards and degradation of water quality would be less than significant.

Infiltration of stormwater has the potential to affect groundwater quality in areas of shallow groundwater. As stated previously, the depth to groundwater at the project site is between 6 and 24 feet bgs. Therefore, due to the shallow groundwater table, stormwater may infiltrate during project construction, potentially affecting groundwater quality given the direct path for pollutants to reach the groundwater table. Proposed construction BMPs, as required by *COA: Stormwater Requirements*, would reduce infiltration of pollutants to groundwater during construction.

[49] AEI Consultants. 2021. *Phase 1 Environmental Site Assessment, 2942 College Avenue, Berkeley, Alameda County, California, 94705.* June 9.

Therefore, project construction would not substantially degrade groundwater quality and this impact would also be less than significant.

Operation. The proposed project would result in the development of two mixed-use buildings. The proposed project would increase impervious surface area on the project site which, without compliance with regulatory requirements, has the potential to increase stormwater runoff and more effectively transport pollutants into receiving waters.

According to the Stormwater Requirements Checklist,[50] approximately 2,912 square feet, or 46 percent, of the approximately 6,346-square-foot project site is currently covered by existing buildings and paved impervious surfaces. The proposed project would result in 3,943 square feet of total impervious surface area (2,298 square feet of replaced impervious surface area and 1,645 square feet of new impervious surface area). In addition, the proposed uses would intensify uses on the project site compared to existing conditions, which would increase the potential for pollutants of concern to be generated on the project site and discharged to surface waters during storm events. Increased vehicle trips to and from the project site could result in a greater potential for leaks of fuels and lubricants, tire wear particulates, brake dust, and fallout from exhaust emissions to convey petroleum hydrocarbons, heavy metals, and sediment off site during storm events. The proposed landscaping could contain residual pesticides and nutrients used for landscape maintenance. The intensification of land uses could result in increased trash generation over existing conditions.

Project operation and maintenance would be subject to the San Francisco Bay RWQCB's Municipal Regional Stormwater (MRP) NPDES Permit, Order No. R2-2022-0018, as amended by Order No. R2-2023-0019, NPDES Permit No. CAS612008. Provision C.3 of the MRP sets forth appropriate and site-specific source control, site design, and stormwater treatment measures for new and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new projects. According to the Stormwater Requirements Checklist, the proposed project is considered a regulated project because it is a redevelopment project that would create and/or replace more than 2,500 square feet of impervious surface (collectively over the entire project site), but less than 5,000 square feet of impervious surface area, making it a C.3.i Small Project. Regulated projects subject to C.3.i (Small Project) must implement source control and site design Best Management Practices (BMPs); however, Small Projects are not required to implement stormwater treatment BMPs. Source control BMPs are preventative measures that are implemented to prevent the introduction of pollutants into stormwater. Site design BMPs are stormwater management strategies that emphasize conservation and use of existing site features to reduce the amount of runoff and pollutant loading generated from a project site. Source Control BMPs and Site Design BMPs applicable to the proposed project are detailed in the Stormwater Requirements Checklist completed for the proposed project, which is provided as Appendix E.[51]

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50 KDA Studios. 2024. *City of Berkeley C.3 Stormwater Requirements Checklist, Municipal Regional Stormwater Permit (MRP 3), Stormwater Controls for Development Project Checklist*. January 31.

51 KDA Studios. 2024. Op. cit.

As previously discussed, infiltration of stormwater could affect groundwater quality in areas of shallow groundwater. Due to the shallow groundwater depths of approximately 6 and 24 feet bgs at the project site and because stormwater would infiltrate at the project site during project operation, stormwater runoff could affect groundwater quality given the direct path for pollutants to reach the groundwater table. The proposed project would be required to implement operational BMPs (including source control and site design) to treat stormwater before it could reach groundwater. These proposed BMPs would treat stormwater runoff onsite, and would reduce the volume of stormwater and the infiltration of pollutants into groundwater during operation. Therefore, infiltration of stormwater at the project site during operation would not substantially degrade groundwater quality.

In conclusion, compliance with the requirements of the MRP and *COA: Stormwater Requirements*, including incorporation of operational BMPs to target pollutants of concern, would ensure that impacts related to violation of waste discharge requirements and water quality standards and degradation of water quality would be less than significant.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? ***(Less Than Significant Impact)***

Groundwater Basins. The City of Berkeley is located within the Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin, which encompasses approximately 122 square miles in Alameda and Contra Costa counties. The East Bay Plain Subbasin generally extends from north to south from the San Pablo Bay to the Niles Cone Groundwater Basin near Hayward. A substantial amount of artificial fill (thicknesses ranging from 1 to 50 feet) has been placed within the basin, with thickest deposits found nearer to San Francisco Bay. Historical groundwater levels in the East Bay Plain Subbasin have varied between 10 to 140 feet below mean sea level; however, levels have been rising continuously since the 1950s.[52]

As previously discussed under Threshold 3.8.a, according to the Phase I ESA prepared for the proposed project, shallow groundwater is anticipated to exist on the project site at depths of approximately 6 and 24 feet bgs. Because the maximum depth of excavation is approximately 5 feet bgs, groundwater dewatering could be required during construction. However, dewatering would be temporary and would not result in long-term lowering of the groundwater levels.

As also discussed under Threshold 3.8.a, the proposed project would result in 3,943 square feet of total impervious surface area (2,298 square feet of replaced impervious surface area and 1,645 square feet of new impervious surface area). An increase in impervious surface area would decrease onsite infiltration of stormwater runoff. However, any decrease in infiltration would be minimal compared to the size of the groundwater basin and would not be anticipated to result in a net decrease in groundwater and aquifer levels.

[52] California Department of Water Resources (DWR). 2004. *California's Groundwater Bulletin 118 – Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin*. February 27. Website: water.ca.gov/Programs/Groundwater-Management/Bulletin-118 (accessed June 19, 2024).

Water supply to the proposed project would be provided by the EBMUD water system, which is supplied from the Mokelumne River.[53] Because EBMUD does not use groundwater from the East Bay Plain Subbasin for municipal water supply, water use during operation of the proposed project would not affect groundwater. Additionally, onsite groundwater extraction during operation would not occur. Therefore, no depletion of the underlying aquifer would occur during the operational phase of the proposed project. For the reasons listed above, impacts related to the decrease of groundwater supplies or interference with groundwater recharge would be less than significant.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. Result in substantial erosion or siltation on- or off-site; ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off site; iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. Impede or redirect flood flows? ***(Less Than Significant Impact)***

Erosion or Siltation. The proposed project would not alter the course of a stream or a river. Site preparation and grading/excavation activities may slightly and temporarily alter onsite drainage; however, the existing drainage patterns would generally be maintained and would not be substantially altered or modified. During construction, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. Compliance with *COA: Stormwater Requirements* and implementation of Erosion Control and Sediment Control BMPs would reduce impacts related to erosion and siltation.

At project completion, approximately 3,943 square feet of the project site would be impervious surface area and not prone to onsite erosion or siltation because no soil would be included in these areas. The remaining portion of the site would consist of pervious surface area, which would contain landscaping that would minimize onsite erosion and siltation by stabilizing the soil. Therefore, onsite erosion and siltation impacts would be minimal. Additionally, compliance with MRP requirements and standard conditions of approval require applicants to establish and maintain drainage patterns so as to not adversely affect adjacent properties and rights-of-way. For these reasons, potential on- and off-site erosion and siltation impacts would be less than significant.

Flooding. As indicated above, the proposed project would not alter the course of a stream or a river. However, the project would increase the amount of impervious surface area on the project site which, without compliance with regulatory requirements, has the potential to increase the volume and rate of stormwater runoff discharged from the project site. The proposed project would convey stormwater runoff to permeable areas on the project site and would connect off site to the City's existing off-site storm drain system within College Avenue. The City of Berkeley Public Works Department would review the drainage plans to ensure they comply with City standards and to verify that the project would not increase downstream flooding. Therefore, this impact would be less than significant.

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[53] East Bay Municipal Utility District. 2021. Water Supply. Website: www.ebmud.com/water/about-your-water/water-supply (accessed June 19, 2024)

Storm Drain Capacity. As described above, stormwater runoff from the project site would discharge to existing storm drain infrastructure in the vicinity of the project site. Coordination with the Berkeley Public Works Department in review of the project drainage plans and compliance with existing requirements would ensure that impacts related to exceedance of storm drain capacity would be less than significant.

As described above under Threshold 3.8.a, the proposed project would comply with all applicable NPDES regulations and City COAs, including the MRP. Construction and operational BMPs would be implemented to reduce pollutants of concern in stormwater runoff from the project site. Additionally, groundwater dewatering would comply with the requirements of the City's Toxics Management Division to ensure that dewatering activities do not introduce pollutants into surface waters. Compliance with existing regulations would ensure that potential impacts related to additional sources of polluted runoff would be less than significant.

Flood Flows. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No 06001C0057G,[54] the project site is within Zone X, Areas of Minimal Flood Hazard. Zone X are areas outside of 0.2 percent annual chance flood (outside of the 500-year floodplain).

Project construction would comply with the requirements of *COA: Stormwater Requirements* and would include the implementation of construction BMPs, including site design and source control measures to control the rate and amount of on-site surface runoff and to direct flows to ensure that storm water runoff from the construction site does not result in on- or off-site flooding. Compliance with *COA: Stormwater Requirements* would ensure that construction impacts related to a substantial increase in the rate or amount of surface runoff that would result in flooding and impede or redirect flood waters would be less than significant.

As previously discussed, development of the proposed project would result in total impervious surface area of approximately 3,943 square feet (62 percent of the site), which would increase the rate and volume of stormwater runoff. However, as discussed above, the project site is not mapped within a 100-year floodplain and therefore would not impede or redirect flood flows. Additionally, compliance with the MRP would ensure that operational activities would not result in a substantial increase in the rate or amount of surface runoff or impede or redirect flood flows in a manner that would result in on- or off-site flooding, and impacts would be less than significant.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? ***(No Impact)***

[54] Federal Emergency Management Agency. 2009. Flood Insurance Rate Map (FIRM) No. 06001C0057G. Website: https://msc.fema.gov/portal/search?AddressQuery=2942%20college%20avenue%2C%20berkeley (accessed June 19, 2024).

As discussed above, the project site is not within a 100-year flood zone therefore, there is no risk of pollutants from the project site due to project inundation.

The project site is approximately 2.6 miles east from the San Francisco Bay and approximately 14 miles east of the Pacific Ocean. Based on the distance from the San Francisco Bay and Pacific Ocean, the project site would not be susceptible to inundation from a tsunami.

Seiches are oscillations in enclosed bodies of water that are caused by a number of factors, most often wind or seismic activity. The nearest major water feature is Aquatic Park, which is located approximately 2.4 miles west of the project site. Given the distance of the nearest large standing body of water from the project site, there is a minimal risk of a release of pollutants from the project site due to seiche-related flooding.

As the project site is not located within a 100-year flood zone and is located a substantial distance from the San Francisco Bay, Pacific Ocean, and nearest body of water, implementation of the proposed project would not result in a flood hazard, tsunami, or seiche risking release of pollutants due to project site inundation. No impact would occur.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? ***(Less Than Significant Impact)***

The project site is within the jurisdiction of the San Francisco RWQCB. The RWQCB adopted a Water Quality Control Plan (Basin Plan)[55] that designates beneficial uses for all surface and groundwater within its jurisdiction and establishes the water quality objectives and standards necessary to protect those beneficial uses. As discussed in detail above under Threshold 3.8.a, the proposed project would comply with existing NPDES requirements and would implement construction and operational BMPs to reduce pollutants of concern in stormwater runoff. Additionally, during construction, any dewatered groundwater would comply with the requirements of the TMD. Compliance with these regulatory requirements would ensure that proposed project would not degrade or alter water quality, cause the receiving waters to exceed the water quality objectives, or impair the beneficial use of receiving waters. As such, the proposed project would not result in water quality impacts that would conflict with the RWQCB Basin Plan. Construction and operational impacts related to a conflict with the Basin Plan would be less than significant.

The Sustainable Groundwater Management Act (SGMA), which was enacted in September 2014, requires governments and water agencies of high- and medium-priority basins to halt overdraft of groundwater basins. The SGMA requires the formation of local groundwater sustainability agencies, which are required to adopt Groundwater Sustainability Plans to manage the sustainability of the groundwater basins. The project site is located within the Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin, which is managed by EBMUD. The East Bay Plain Subbasin is identified by

[55] San Francisco Bay Regional Water Quality Control Board (RWQCB). 2023. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin, amendments adopted up through March 7, 2023.

the California Department of Water Resources as a medium priority basin[56] and is therefore subject to the requirements of SGMA and has prepared a Groundwater Sustainability Plan (GSP).[57]

As previously discussed, the proposed project could result in potentially significant impacts to surface water and groundwater quality, which would result in potentially significant impacts related to conflicting with the GSP for the East Bay Plain (EBP) Subbasin; however, required compliance with existing regulations including the NPDES permit requirements, the MRP, and City COAs would ensure the protection of groundwater and surface water quality during construction and operation of the project.

In addition, as described above, operation of the proposed project would not involve the use of groundwater for water supply, and groundwater dewatering activities and alteration of impervious surfaces under the project would result in less than significant impacts related to groundwater recharge or groundwater supplies. Therefore, the proposed project would not conflict with or obstruct implementation of the Basin Plan or the GSP for the EBP Subbasin, and this impact would be less than significant.

56 California Department of Water Resources (DWR). n.d.-a. *SGMA Basin Prioritization Dashboard*. Website: gis.water.ca.gov/app/bp-dashboard/final (accessed June 19, 2024).

57 East Bay Municipal Utility District GSA and City of Hayward GSA. 2022. East Bay Plan Subbasin, Groundwater Sustainability Plan, January.

3.9 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 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Noise is usually defined as unwanted sound, and consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness; and similarly, each 10 dB decrease in sound level is perceived as half as loud. Sound intensity is normally measured through the A-weighted decibel (dBA) sound level. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent human sensitivity to sound at night.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq}, the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on dBA. CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 PM to 10:00 PM (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 PM to 7:00 AM (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

A project would have a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of applicable regulatory agencies, including, as appropriate, the City of Berkeley.

Certain land uses are considered more sensitive to noise than others. Examples of these land uses include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project site is surrounded by a mix of uses within an urban area of the City. The project site is located within the Elmwood neighborhood within the City, which is characterized by a mix of commercial and residential uses. The project site is less than 10 feet from the closest noise-sensitive receptors (residential uses) located west of the project boundary.

The City of Berkeley General Plan addresses excessive noise in the Environmental Management Element.[58] Major noise sources in Berkeley include transportation, industrial plant noise, and activities associated with neighborhoods. The General Plan includes a map of the existing noise levels throughout the City. According to the General Plan, the project site is exposed to noise levels reaching 70 dBA L_{dn}. The General Plan also provides policies and actions to protect the community from excessive noise levels. Policies and actions applicable to the proposed project include the following:

- Policy EM-43: Noise Reduction. Reduce significant noise levels and minimize sources of noise.
- Policy EM-44: Noise Prevention and Elimination. Protect public health and welfare by eliminating existing noise problems where feasible and by preventing significant future degradation of the acoustic environment.
- Policy EM-45: Traffic Noise. Work with local and regional agencies to reduce local and regional traffic, which is the single largest source of unacceptable noise in the city.
- Policy EM-46: Noise Mitigation. Require operational limitations and all feasible noise buffering for new uses that generate significant noise impacts near residential, institutional, or recreational uses.
- Policy EM-47: Land Use Compatibility. Ensure that noise-sensitive uses, including, but not limited to, residents, child-care centers, hospitals, and nursing homes, are protected from detrimental noise levels.
- Action EM-47-A: Noise-sensitive development proposals should be reviewed with respect to the Land Use Compatibility Guidelines below [see Table 3.].

  If the noise level is within the "normally acceptable" level, noise exposure would be acceptable for the intended land use. Development may occur without requiring an evaluation of the noise environment unless the use could generate noise impacts on adjacent uses.

[58] Berkeley, City of. 2001. *City of Berkeley General Plan*.

Table 3.E: General Plan Noise and Land Use Compatibility Guidelines

Land Use Category	Exterior Noise Exposure (L_{dn})					
	55	60	65	70	75	80
Residential, Hotels, and Motels						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business Commercial and Professional						
Auditoriums, Concert Halls, Amphitheaters						

NORMALLY ACCEPTABLE: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
CONDITIONALLY ACCEPTABLE: Specific land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features have been incorporated.
UNACCEPTABLE: New construction or development should generally not be undertaken unless all feasible noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce exposure of people to unacceptable noise levels.

Source: City of Berkeley General Plan (July 2001).

If the noise level is within the "conditionally acceptable" level, noise exposure would be conditionally acceptable; a specified land use may be permitted only after detailed analysis of the noise environment and the project characteristics to determine whether noise insulation or protection features are required. Such noise insulation features may include measures to protect noise-sensitive outdoor activity areas (e.g., at residences, schools, or parks) or may include building sound insulation treatments such as sound-rated windows to protect interior spaces in sensitive receptors.

If the noise level is within the "normally unacceptable" level, analysis and mitigation are required. Development should generally not be undertaken unless adequate noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce the exposure of people to unacceptable noise levels.

If the noise level is within the "clearly unacceptable" level, new construction or development should not be undertaken unless all feasible noise mitigation options have been analyzed and appropriate mitigations incorporated into the project to reduce exposure of people to unacceptable noise levels.

The City has also established standard conditions of approval (COA) for all development projects, which are listed in Table 1.A of this Initial Study and are identified below, as applicable.

BMC Title 13: Public Peace, Morals and Welfare, Chapter 13.40 (Community Noise) addresses noise impacts. The ordinance establishes exterior and interior noise standards at receiving land uses and construction activity noise regulations as included below.

The City's exterior and interior noise limits are shown in Table 3.. The hourly noise level standards vary based on the receiving land use type and the time period. In order to assess intermittent or

maximum noise levels, the time weighted noise level additions presented in BMC Section 13.40.050 and described in further detail below, should be applied.

Table 3.F: Exterior and Interior Noise Limits, BMC Section 13.40.050

Zoning District	Time Period	Noise Level (dBA)
Exterior Noise Limits		
R-1, R-2, R-1A, R-2A, and ESR	7:00 AM – 10:00 PM 10:00 PM – 7:00 AM	55 45
R-3 and above	7:00 AM – 10:00 PM 10:00 PM – 7:00 AM	60 55
Commercial	7:00 AM – 10:00 PM 10:00 PM – 7:00 AM	65 60
Industry	Anytime	70
Interior Noise Limits		
All	7:00 AM – 10:00 PM 10:00 PM – 7:00 AM	45 40

Source: City of Berkeley Municipal Code Tables 13.40-1 and 13.40-2 (2014).

The maximum noise levels vary based on the receiving land use type and the time period. The ordinance also limits noise generated by construction. The ordinance restricts construction activities to weekdays between the hours of 7:00 AM and 7:00 PM and on weekdays and holidays, between 9:00 AM and 8:00 PM, except for emergency work.

The following noise standards are outlined in BMC Chapter 13.40.050:

A. Maximum permissible sound levels shall be determined by the zoning district of the property subject to the noise, not the property from which the noise originates.

   1. The noise standards for the various categories of land use in Table 6 [of BMC Chapter 13.40.050 and shown in Table 3.F of the Initial Study Checklist] shall, unless otherwise specifically indicated in other codes, apply to all such property within a designated zone.

   2. No person shall operate or cause to be operated any source of sound at any location within the incorporated City or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the sound level when measured on any other property to exceed:

      a. The noise standard for that land use as specified in Table 6 [Table 3.F of the Initial Study] for a cumulative period of more than 30 minutes in any hour; or

      b. The noise standard for that land use as specified in Table 6 [Table 3.F of the Initial Study] plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or

      c. The noise standard for that land use as specified in Table 6 [Table 3.F of the Initial Study] plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or

d. The noise standard for that land use as specified in Table 6 [Table 3.F of the Initial Study] plus 15 dBA for a cumulative period of more than 1 minute in any hour; or

e. The noise standard for that land use as specified in Table 6 [Table 3.F of the Initial Study] plus 20 dBA for any period of time.

The following interior noise standards are outlined in BMC Section 13.40.060:

1) No person shall operate or cause to be operated within a multi-family dwelling unit any source of sound or allow the creation of any noise which causes the sound level when measured inside a neighboring dwelling unit to exceed:

   a. The noise standard as specified in Table 6 [Table 3.F of the Initial Study] for a cumulative period of more than 5 minutes in any hour; or

   b. The noise standard as specified in Table 6 [Table 3.F of the Initial Study] plus 5 dBA for a cumulative period of more than one minute in any hour; or

   c. The noise standard as specified in Table 6 [Table 3.F of the Initial Study] plus 10 dBA for any period of time.

Section 13.40.070 of the BMC restricts construction activities to weekdays between the hours of 7:00 AM and 7:00 PM and on weekends and holidays between 9:00 AM and 8:00 PM, except for emergency work. Construction activities are divided into two categories: mobile equipment and stationary equipment. Mobile equipment, as defined by BMC Section 13.40.070, includes sound levels for nonscheduled, intermittent, short-term operation of less than 10 days of jackhammers, drills, saws, sander grinder, and similar tools. Stationary equipment, according to BMC Section 13.40.070, would be repetitively scheduled and relatively long-term operation for longer than 10 days. Equipment used during construction of the proposed project would be considered stationary because construction would last longer than 10 days. Where technically and economically feasible, construction activities shall be conducted in such a manner that maximum sound levels at affected properties will not exceed those listed in Table 3. below.

Table 3.G: Maximum Stationary Equipment Construction Noise Levels (dBA), Berkeley Municipal Code Section 13.40.070

	R-1, R-2 Residential	R-3 and above Multi-Family Residential	Commercial/ Industrial
Weekdays 7:00 AM to 7:00 PM	60	65	70
Weekends 9:00 AM to 8:00 PM and legal holidays	50	55	60

Source: City of Berkeley Municipal Code Table 13.40-4 (2014).

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

The following describes how the short-term construction and long-term operational noise impacts of the proposed project would be less than significant, according to the standards set forth above.

Short-Term (Construction) Noise Impacts. Project construction would result in short-term noise impacts on the nearby sensitive receptors. The closest sensitive receptors are the single-family residences adjacent to the western boundary of the project site. Project construction would result in short-term noise impacts on these receptors. Maximum construction noise would be short-term, generally intermittent depending on the construction phase, and variable depending on receiver distance from the active construction zone. The duration of noise impacts generally would be from one day to several days depending on the phase of construction. The entire construction duration is expected to occur for approximately 12 months. The level and types of noise impacts that would occur during construction are described below.

Short-term noise impacts would occur during demolition, site preparation, grading, building construction, paving, and architectural coating activities. Table 3. lists typical construction equipment noise levels ($L_{max,}$ or maximum instantaneous sound level) recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, obtained from the Federal Highway Administration (FHWA) Roadway Construction Noise Model. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the project area but would no longer occur once construction of the project is completed.

Table 3.H: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet[1]
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Pick-up Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85

Table 3.H: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)	Maximum Noise Level (L_{max}) at 50 Feet[1]
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Welder	40	73

Source: Roadway Construction Noise Model (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
L_{max} = maximum instantaneous sound level

Two types of short-term noise impacts could occur during construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to the site, which would incrementally increase noise levels on roads leading to the site. As shown in Table 3., there would be a relatively high single-event noise exposure potential at a maximum level of 84 dBA L_{max} with trucks passing at 50 feet.

The second type of short-term noise impact is related to noise generated during excavation, grading, and construction on the project site. Construction is performed in discrete steps, or phases, each with its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Table 3. lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. Typical maximum noise levels range up to 87 dBA L_{max} of 85 dBA L_{eq} at 50 feet during the noisiest construction phases. The site preparation phase, including excavation and grading of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

As identified above, the project site is less than 10 feet from the closest noise-sensitive receptors (residential uses) located west of the project boundary. The 10-foot distance would increase the noise level by 14 dBA compared to the noise level measured at 50 feet from the construction activity. Therefore, the closest off-site residences may be subject to short-term construction noise levels of 99 dBA L_{eq} when construction is occurring at the western project site boundary.

According to the City of Berkeley Noise Ordinance (BMC Section 13.40.070), noise from construction activities is permitted to exceed the established maximum allowable noise performance standards, provided that the activities occur during the permissible hours for construction and all technically

and economically feasible noise reduction measures are incorporated. Construction impacts at residential land uses, although permitted and exempted during the construction hours specified by the City, would exceed the suggested maximum noise levels for stationary sources as established by the City.

Implementation of the following standard conditions of approval would reduce construction noise impacts on the off-site nearby sensitive receptors and would require the applicant to implement all technically and economically feasible measures to reduce construction noise, consistent with the requirements of BMC Section 13.40.070.

> ***COA: Construction Noise Reduction Program.*** The applicant shall develop a site-specific noise reduction program prepared by a qualified acoustical consultant to reduce construction noise impacts to the maximum extent feasible, subject to review and approval of the Zoning Officer. The noise reduction program shall include the time limits for construction listed above, as measures needed to ensure that construction complies with BMC Section 13.40.070. The noise reduction program should include, but shall not be limited to, the following available controls to reduce construction noise levels as low as practical:
>
> - Construction equipment should be well maintained and used judiciously to be as quiet as practical.
> - Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.
> - Utilize "quiet" models of air compressors and other stationary noise sources where technology exists. Select hydraulically or electrically powered equipment and avoid pneumatically powered equipment where feasible.
> - Locate stationary noise-generating equipment as far as possible from sensitive receptors when adjoining construction sites. Construct temporary noise barriers or partial enclosures to acoustically shield such equipment where feasible.
> - Prohibit unnecessary idling of internal combustion engines.
> - If impact pile driving is required, pre-drill foundation pile holes to minimize the number of impacts required to seat the pile.
> - Construct solid plywood fences around construction sites adjacent to operational business, residences or other noise-sensitive land uses where the noise control plan analysis determines that a barrier would be effective at reducing noise.
> - Erect temporary noise control blanket barriers, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.

- Route construction related traffic along major roadways and away from sensitive receptors where feasible.

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

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

COA: Construction Hours. Construction activity shall be limited to between the hours of 7:00 a.m. and 6:00 p.m. on Monday through Friday, and between 9:00 a.m. and 4:00 p.m. on Saturday. No construction-related activity shall occur on Sunday or any Federal Holiday.

COA: Construction Hours- Exceptions. It is recognized that certain construction activities, such as the placement of concrete, must be performed in a continuous manner and may require an extension of these work hours. Prior to initiating any activity that might require a longer period, the developer must notify the Zoning Officer and request an exception for a finite period of time. If the Zoning Officer approves the request, then two weeks prior to the expanded schedule, the developer shall notify businesses and residents within 500 feet of the project site describing the expanded construction hours. A copy of such notice and methodology for distributing the notice shall be provided in advance to the City for review and approval. The project shall not be allowed more than 15 extended working days.

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

- Contact information (i.e., "hotline" phone number, and email address) for the project construction manager.

- Calendar and schedule of daily/weekly/monthly construction activities.

- The final Conditions of Approval, Mitigation Monitoring and Reporting Program, Transportation Construction Plan, Construction Noise Reduction Program, and any other reports or programs related to construction noise, air quality, and traffic.

Implementation of the City's standard conditions of approval would reduce construction noise impacts to the extent feasible, as required by BMC Section 13.40.070. With implementation of the City's standard conditions of approval, construction noise impacts would be reduced to a less than significant level.

Operational Noise Impacts. The proposed project would generate a less than significant impact for both traffic and stationary noise sources, as discussed below.

Traffic Noise Impacts. Off-site traffic noise impacts would result in a significant impact if traffic noise levels increase by 4 dBA or more over ambient noise levels without the project. According to the *Trip Generation and Vehicle Miles Traveled Analysis for the 2942 College Avenue Project*, the proposed project would generate 109 daily trips.[59] According to the Berkeley General Plan, the current traffic volume of College Avenue (Ashby Avenue to Derby Street) over a 24-hour period is 13,000 vehicles. An increase in 109 daily trips increases traffic noise by 0.04 dBA. This is below 4 dBA; therefore, the impact is less than significant.

Stationary Source Noise Impacts. Stationary noise sources associated with the proposed project could include heating, ventilation, and air conditioning (HVAC) mechanical equipment and typical motor vehicle/parking area activities. As described above, the City establishes the acceptable daytime and nighttime maximum noise levels at receiving land uses. Daytime is considered to be between the hours of 7:00 AM and 10:00 PM, and nighttime hours are between 10:00 PM and 7:00 AM BMC Section 13.40 establishes interior and exterior noise level standards (as measured at receiving sensitive land uses) not to be exceeded for more than 30 minutes any hour on commercial land uses as 60 dBA during nighttime hours and 65 dBA during daytime hours, and on residential land uses as 45 dBA during nighttime hours and 55 dBA during daytime hours. It is not expected that the proposed project would substantially increase noise levels over existing conditions and impacts would be less than significant.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? ***(Less Than Significant Impact)***

Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. As the vibration propagates from the foundation throughout the remainder of the building, the vibration of floors and walls may cause perceptible vibration from the rattling of windows or a rumbling noise. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. When assessing annoyance from groundborne noise, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second. To distinguish vibration levels from noise levels, the unit is written as "VdB." Human perception to vibration in indoor environments starts at levels as low as

[59] LSA. 2024. Trip Generation and Vehicle Miles Traveled Analysis for the 2942 College Avenue Project (LSA Project No. CBE1906.14). June 21.

67 VdB and sometimes lower. Annoyance due to vibration in residential settings starts at 70 VdB. Groundborne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of the building, the motion does not provoke the same adverse human reaction.

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include trains and construction activities such as blasting, pile driving and operating heavy earthmoving equipment.

Construction and operation of the proposed project could expose sensitive structures and residential receptors to excessive groundborne vibration, as discussed below.

Construction Vibration. Construction activities that would occur at the project site have the potential to generate low levels of groundborne vibration or groundborne noise levels. The project would require demolition of the existing structures on the project site, as well as site clearing and grading activities. These activities would occur within less than 10 feet of existing sensitive residential uses. No impact pile driving would occur as part of the proposed project.

For all other equipment associated with the proposed construction activities, vibration impacts would approach 0.089 inches per second at a distance of 25 feet. This level would not exceed the 0.12 inches per second threshold at which there is virtually no risk resulting in architectural damage to buildings extremely susceptible to vibration damage. It would be structurally safe from the construction activity and equipment operation for these adjacent buildings and no structural damages would occur as a result of onsite construction. In addition, the following COA requires an analysis of potential damage due to construction prior to, or concurrent with demolition building permit.

> ***COA: Damage Due to Construction Vibration.*** The project applicant shall submit screening level analysis prior to, or concurrent with demolition building permit. If a screening level analysis shows that the project has the potential to result in damage to structures, a structural engineer or other appropriate professional shall be retained to prepare a vibration impact assessment (assessment). The assessment shall take into account project specific information such as the composition of the structures, location of the various types of equipment used during each phase of the project, as well as the soil characteristics in the project area, in order to determine whether project construction may cause damage to any of the structures identified as potentially impacted in the screening level analysis. If the assessment finds that the project may cause damage to nearby structures, the structural engineer or other appropriate professional shall recommend design means and methods of construction that to avoid the potential damage, if feasible. The assessment and its recommendations shall be reviewed and approved by the Building and Safety Division and the Zoning Officer. If there are no feasible design means or methods to eliminate the potential for damage, the structural engineer or other appropriate professional shall undertake an existing conditions study (study) of any structures (or, in case of large buildings, of the portions of the structures) that may experience damage. This study shall:
>
> - Establish the baseline condition of these structures, including, but not limited to, the location and extent of any visible cracks or spalls; and

- Include written descriptions and photographs.

With implementation of *COA: Damage Due to Construction Vibration*, construction of the proposed project would not result in substantial groundborne vibration on properties adjacent to the project site. Therefore, impacts associated with groundborne vibration and groundborne noise levels during construction would be less than significant.

Operational Vibration. No permanent noise sources that would expose persons to excessive groundborne vibration or noise levels would be located within the project site. In addition, long-term operational activities associated with the proposed project would not involve the use of any equipment or processes that would result in potentially significant levels of ground vibration. Therefore, this impact would be less than significant.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ***(No Impact)***

The airport nearest to the project site is the Oakland International Airport (approximately 8.3 miles south of the site) The nearest private airport, Buchanan Field Airport, is located approximately 14 miles northeast of the site. Although aircraft-related noise is occasionally audible on the project site, the site does not lie within an airport land use plan area or within the 60 dBA L_{dn} noise contours of any of these public airports or private airfields. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels due to the proximity of a public airport. There would be no impact.

3.10 POPULATION AND HOUSING

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

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? ***(Less Than Significant Impact)***

The project site is currently developed with a single-story, vacant commercial building and accessory structures and does not contain any residential units. The proposed project would result in the development of a two-story mixed-use building containing 1,481 square feet of commercial space and two residential units and a two-story residential building containing four residential units, for a total of six new residential units on the project site. As such, implementation of the proposed project would result in an increase in employees and residents at the project site. Based on the average employment density for retail uses of 250 square feet per worker,[60,61] the proposed 1,481 square feet of commercial space would result in approximately six new employees. Based on a 2.37 persons per household estimate for the City of Berkeley obtained from the United States Census Bureau, development of the 6 new residential units is estimated to result in a total population of up to approximately 14 residents on the project site.[62]

As of July 1, 2023, the population in the City of Berkeley was estimated at 118,962.[63] Therefore, implementation of the proposed project represents approximately 0.01 percent of the City's total population.[64] Implementation of the proposed project would not directly induce substantial

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60 The number of employees associated with the proposed project was determined based on data available from *Envision 2040, 4-Year Review, Market Overview and Employment Lands Analysis* prepared for the City of San Jose and dated January 28, 2016. Based on the available data, an employment density factor for retail land uses is between 250 and 650 square feet per employee. In order to provide a conservative analysis, the employment density factor of 250 square feet per employee was used to estimate employment generate from the proposed project.

61 Strategic Economics. 2016. *Envision 2040, 4-Year Review, Market Overview and Employment Lands Analysis.* January 28.

62 United States Census Bureau. City of Berkeley, QuickFacts, Persons per household, 2018-2022. Website: https://www.census.gov/quickfacts/fact/table/berkeleycitycalifornia/PST045222 (accessed June 12, 2024). 2.37 persons per household * 6 units = 14.22 (rounded to 14).

63 Ibid.

64 14 residents / 118,962 total population = 0.00012.

population growth in the area and the project is anticipated to serve the City's need for more housing units. In addition, future residents are expected to come from the surrounding area. The proposed project is located on an infill site in a mixed use area and is therefore an appropriate location for new housing. The project does not include construction of addition public infrastructure, such as wastewater treatment facilities; therefore, implementation of the proposed project would not indirectly induce substantial population growth in the area.

The six future employees associated with the proposed commercial space represent a minimal increase and are expected to come from the surrounding area. Therefore, the proposed project would not directly or indirectly induce substantial population growth on the site or in the surrounding area through the increase in employment on the site.

As such, the proposed project would not induce substantial population growth in an area, either directly or indirectly, and impacts would be less than significant.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ***(No Impact)***

The project site is currently developed with a single-story, vacant commercial building and accessory structures and does not contain any residential units. Therefore, demolition of existing structures and construction of the proposed project would not displace any people or housing, and there would be no impact.

3.11 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 §15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

The information below is based in part on the *Trip Generation and Vehicle Miles Traveled Memorandum*[65] prepared for the proposed project.

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? ***(Less Than Significant Impact)***

The following includes an evaluation of the proposed project's potential to conflict with applicable programs, plans, ordinances, and policies addressing the circulation system, including the City's Transportation Strategic Plan.[66] The section begins with a description of the proposed project's trip generating potential, compared to existing conditions, followed by an analysis of potential impacts to transit, bicycle, pedestrian, and roadway facilities. As discussed, this impact would be less than significant.

Trip Generation. Trip generation is the process of estimating the number of vehicles that would likely access the project site. Trip generation data for the proposed project was estimated using the data and methodology published by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual, 11th Edition for Multifamily Housing (Low-Rise) and Strip Retail Plaza.

Table 3.I summarizes the trip generation for the proposed project based on the ITE methodology. As shown in Table 3.I, it is estimated that the proposed project would generate approximately 109 daily trips, including 6 AM peak hour and 13 PM peak hour net new trips.

65 LSA. 2024. *Trip Generation and Vehicle Miles Traveled Analysis for the 2942 College Avenue Project (LSA Project No. CBE1906.14).* June 21.

66 Berkeley, City of. 2016a. *Berkeley Strategic Transportation Plan.* June.

Table 3.I: Project Trip Generation

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Multifamily Housing		du	4.72	0.11	0.27	0.38	0.37	0.24	0.61
Strip Retail Plaza		tsf	54.45	1.42	0.94	2.36	3.30	3.29	6.59
Project Trip Generation									
Multifamily Housing	6	du	28	1	2	3	2	1	3
Strip Retail Plaza	1.481	tsf	81	2	1	3	5	5	10
Total			**109**	**3**	**3**	**6**	**7**	**6**	**13**

Source: Compiled by LSA (2024).

[1] Trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation* Manual, 11th Edition (2021).
Land Use 220 – Multifamily Housing (Low-Rise) – 2 or 3 Levels – Close to Rail Transit
Land Use 822 – Strip Retail Plaza (<40k) – Less than 40,000 square feet of gross leasable area

du = dwelling unit
tsf = thousand square feet

Transit Facilities. The proposed project would have a significant impact related to transit facilities if it would conflict with the goals and policies related to transit use in the Berkeley Strategic Transportation Plan, which was adopted in 2016.[67] In particular, the proposed project would result in a conflict if it would discourage people from using transit or decrease transit efficiency.

Transit in the project vicinity includes the extensive bus transit service provided by Alameda-Contra Costa County (AC) Transit. The proposed project is located within close proximity to a variety of transit services, which would encourage the use of these services. The project site is located within 0.5 miles of several intersecting major bus routes, including Lines 6, 7, 79, 800, 851, and E. Line 6 provides bus service from Downtown Oakland to Downtown Berkeley, Line 7 provides bus service from the El Cerrito del Norte Bay Area Rapid Transit (BART) Transit Center to Downtown Berkeley, Line 79 provides bus service from the El Cerrito Plaza BART Transit Center to the Rockridge BART Transit Center, Line 800 provides bus service from the Richmond BART Transit Center to Market Street/Van Ness Avenue, Line 851 provides bus service from Downtown Berkeley to the Fruitvale BART Transit Center, and Line E provides bus service from Caldecott Lane/Tunnel Road to the Salesforce Transit Center in San Francisco.[68] These lines provide service at a frequency of less than 15 minutes during the morning and afternoon peak commute periods. Implementation of the proposed project is expected to increase the use of transit services in the project area. However, future residents and employees at the project site are expected to come from the surrounding Berkeley area and likely already utilize transit service. Therefore, this minimal increase would not have a substantial effect on the efficiency of AC Transit bus service.

Bicycle Facilities. The proposed project would have a significant impact to bicycle facilities if it would conflict with the goals and policies related to bicycle use in the Berkeley Strategic Transportation Plan. In particular, the proposed project would result in a conflict if it would impair

67 Berkeley, City of. 2016a. *Berkeley Strategic Transportation Plan.* June.

68 Alameda-Contra Costa County Transit. 2024. *Maps & Schedules.* Website: https://www.actransit.org/maps-schedules (accessed June 10, 2024).

the implementation of any planned bicycle boulevards, result in street design that would be unsafe for bicyclists, or discourage bicycle use in the vicinity of the project site.

Bicycle access to the proposed project is provided through the City's bicycle network; however, the City's Bicycle Plan does not identify Ashby Avenue or College Avenue as an existing or planned bicycle facility.

The proposed project's site plan identifies four long-term and two short-term bicycle parking spaces for the proposed residential uses in a covered bike storage area within the common courtyard area between the two proposed buildings. Residents using the proposed bike storage facilities would approach the site from both north and south and use the proposed residential entry on College Avenue to reach the bicycle parking facilities.

The proposed project would not modify any surrounding roadways and would not prevent the implementation of the planned bicycle boulevard in the City. Although there are currently no plans to provide a bicycle lane on Ashby Avenue or College Avenue along the project frontage, the City may implement the bicycle lane in the future as part of a separate bicycle improvement project on these roadways. Therefore, the proposed project would have a less than significant impact related to bicycle facilities.

Pedestrian Facilities. The proposed project would have a significant impact to pedestrian facilities if it would conflict with the goals and policies related to bicycle use in the Berkeley Strategic Transportation Plan. In particular, the proposed project would result in a conflict if it would discourage walking in commercial districts, result in street design that would be unsafe for pedestrians, or discourage walking in the vicinity of the project site.

The sidewalk adjacent to the site along College Avenue is currently 8 feet wide. Pedestrians would access the project site from College Avenue, and the anticipated pew pedestrian trips generated by the proposed project would be accommodated on the existing facilities serving the project site. Therefore, the proposed project would have a less than significant impact related to pedestrian safety or facilities.

Roadways. Pursuant to SB 743, described under Threshold 3.11.b, level of service (LOS) or other measures of automobile delay can no longer be used to identify significant impacts under CEQA. Therefore, the following summary of the proposed project's effects on roadway operations is provided for informational purposes only.

Regional vehicular access to the project site is provided by I-80 and I-580 via Ashby Avenue (SR-13). Local access is primarily via College Avenue via Ashby Avenue, both of which are designated as Major Streets in the City's General Plan. There are no proposed changes to existing public roadways or transportation-related infrastructure. Therefore, and due to the relatively small nature of the proposed project and the minimal increase in trips to and from the project site with implementation of the proposed project, the proposed project is not anticipated to result in significant impacts on surrounding roadway facilities.

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)? ***(Less Than Significant Impact)***

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changed the way transportation impact analysis is conducted as part of CEQA compliance. These changes include elimination of automobile delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to "more appropriately balance the needs of congestion management with Statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions."

In December 2018, the Governor's Office of Planning and Research (OPR), now called the Office of Land Use and Climate Innovation, completed an update to the CEQA Guidelines to implement the requirements of SB 743. The Guidelines state that VMT must be the metric used to determine significant transportation impacts. The Guidelines require all lead agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 1, 2020.

The OPR Guidelines recommend developing screening criteria for development projects that meet certain criteria that can readily lead to the conclusion that they would not cause a significant impact on VMT. The OPR Guidelines also recommend evaluating VMT impacts using an efficiency-based version of the metric, such as VMT per resident for residential developments and/or VMT per worker for office or other employment-based developments. The City of Berkeley uses the metric of home-work VMT per worker for evaluating the impacts of employment-based uses, such as the proposed project. The home-work VMT per worker measures all of the driving commute trips between homes and workplaces and divides that total distance by the number of workers at the site. Based on the City of Berkeley's guidelines, an employment-generating project's VMT impact is considered less than significant if its home-work VMT per worker is at least 15 percent below the regional average home-work VMT per worker.

VMT Assessment. According to the City of Berkeley Transportation VMT Criteria and Thresholds,[69] projects in a transit priority area (TPA) (within a 0.5-mile walkshed of major transit stops or within a 0.25-mile walkshed around high-quality transit corridors), small projects (equating to 20 units of residential use or up to 10,000 square feet of non-residential use), and projects in low VMT areas are screened out from a VMT analysis and are presumed to have a less than significant transportation impact.

As shown on the Household VMT Per Capita and Home-Work VMT Per Worker maps in the City of Berkeley Transportation VMT Criteria and Thresholds, the project site is located within a TPA and in a low VMT area (VMT per resident is at least 15 percent below the Bay Area average). In addition, the proposed project is a small project since it is comprised of 6 residential units (less than 20 units of residential use) and 1,481 square feet of retail use (less than 10,000 square feet of non-residential use). As such, the proposed project meets the City's VMT screening criteria. Therefore, based on its location and size, the proposed project is presumed to have a less than significant VMT impact.

[69] Berkeley, City of. 2020. *City of Berkeley Transportation VMT Criteria and Thresholds*. June 29.

c. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ***(No Impact)***

As previously discussed, there are no proposed changes to existing public roadways or transportation-related infrastructure. Therefore, the proposed project would have no impact on hazards due to a design feature or incompatible uses.

d. Would the project result in inadequate emergency access? ***(No Impact)***

As previously discussed, there are no proposed changes to existing public roadways or transportation-related infrastructure. In addition, during project construction emergency access would be maintained. Therefore, the proposed project would have no impact on emergency access.

3.12 TRIBAL CULTURAL RESOURCES

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

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. ***(Less Than Significant Impact)***

As previously described in Section 1.0, Project Information, a request form describing the proposed project and map depicting the project site was sent to the NAHC in West Sacramento requesting a list of tribes eligible to consult with the City, pursuant to Public Resources Code Section 21080.3.1. On July 12, 2024, the NAHC responded in a letter with a list of tribal contacts. The City sent letters to these individuals on September 27, 2024, notifying them of their opportunity to consult for this project.

On September 27, 2024, Ms. Gill, representative of the Confederated Villages of Lisjan Nation, responded to the City's email and requested the results of the CHRIS records search and

consultation. On October 2, 2024, Mr. Galvan, representative of the Ohlone Indian Tribe, responded to the City's email and requested the results of the CHRIS records search.

The City responded to the Confederated Villages of Lisjan Nation request on October 4, 2024, providing the results of the CHRIS records search, sharing project details regarding the CEQA evaluation process, and scheduling a consultation meeting for November 27, 2024. On November 27, 2024, the Confederated Villages of Lisjan Nation requested the rescheduling of the consultation meeting and shared the Confederated Villages of Lisjan Nation's standard mitigation measures that are recommend for all projects. The Confederated Villages of Lisjan Nation's standard mitigation measures are similar in scope to the City's COAs, detailed below; however, they also include a 100-foot stop work order. The City informed the Confederated Villages of Lisjan Nation on March 13, 2025, that the City will transmit this IS/MND to the Confederated Villages of Lisjan Nation on the day it is published for public review.

The City responded to the Ohlone Indian Tribe on October 9, 2024, and provided the requested CHRIS record search results. No further information was requested, and no other communication was received from the Ohlone Indian Tribe.

As described in Section 3.3, Cultural Resources, no archeological resources have been identified at the project site. However, if significant archeological deposits were unearthed during project construction, a substantial adverse change in the significance of a historical resource would occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (*CEQA Guidelines* Section 15064.5(b)(1)). However, the proposed project would be required to comply with *COA: Archeological Resources* and *COA: Human Remains*, as detailed in Section 3.3, Cultural Resources, that addresses potential impacts to archeological resources and human remains. In addition, the proposed project would be required to comply with *COA: Halt Work/Unanticipated Discovery of Tribal Cultural Resources*, which would address potential impacts to tribal cultural resources.

> ***COA: Halt Work/Unanticipated Discovery of Tribal Cultural Resources.*** In the event that cultural resources of Native American origin are identified during construction, all work within 50 feet of the discovery shall be redirected. The project applicant and project construction contractor shall notify the City Planning Department within 24 hours. The City will again contact any tribes who have requested consultation under AB 52, as well as contact a qualified archaeologist, to evaluate the resources and situation and provide recommendations. If it is determined that 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. If the resource cannot be avoided, additional measures to avoid or reduce impacts to the resource and to address tribal concerns may be required.

With implementation of the City's standard COAs identified in Section 3.3, Cultural Resources, as well as *COA: Halt Work/Unanticipated Discovery of Tribal Cultural Resources*, impacts to archeological deposits and human remains that may qualify as tribal cultural resources would be less than significant.

3.13 UTILITIES AND SERVICE SYSTEMS

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

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

The EBMUD Orinda Water Treatment Plant (Orinda WTP) and the Main Wastewater Treatment Plant (MWWTP) serve the project site and surrounding area. [70] The proposed project would connect to existing water delivery and sanitary sewer systems within the vicinity of the site and it is anticipated that these pipelines would have sufficient capacity to support project water and wastewater flows. In addition, as a condition of project approval, the project sponsor would be required to coordinate with EBMUD, the City's Fire Department, and the City's Public Works Department to assess water and wastewater flow and ensure the proposed project would comply with the applicable requirements.

The proposed project would not include new connections or upgrades to existing stormwater infrastructure as all stormwater on the project site would be infiltrated onsite. Under existing conditions, the project site is developed with a single-story commercial building and two accessory structures. Development of the proposed project would result in 3,943 square feet of total new impervious surface area (2,298 square feet of replaced impervious surface area and 1,645 new impervious surface area). Runoff would be treated in accordance with the applicable MRP, including C.3 requirements, before infiltrating at the project site. Please see Section 3.8, Hydrology and Water

[70] East Bay Municipal Utility District (EBMUD). 2021a. *2020 Urban Water Management Plan*. June.

Quality, for a complete discussion of stormwater drainage facilities and associated impacts, which would be less than significant.

The project site is currently served by electrical and telecommunications facilities. Therefore, because the proposed project would consist of infill development on a previously developed site that is currently served by utilities, the expansion of electrical or telecommunications facilities would not be required. In addition, as described in Section 1.0, Project Information, the proposed buildings would be designed to be all-electric, and therefore would not include the use of any traditional gas systems or facilities. Therefore, this impact would be less than significant.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? ***(Less Than Significant Impact)***

Water service at the project site and in the project area is provided by EBMUD. According to the 2020 Urban Water Management Plan (2020 UWMP), EBMUD obtains approximately 90 percent of its water from the Mokelumne River watershed and transports it through pipe aqueducts to temporary storage reservoirs in the East Bay hills. EBMUD has water rights and facilities to divert up to a daily maximum of 325 mgd from the Mokelumne River.[71] Average daily water demand within the entire EBMUD service area is projected to be 245 million gallons per day (mgd) in 2025, 254 mgd in 2030, 277 mgd in 2040, and 297 mgd in 2050.[72]

The proposed project would develop the project site with two new two-story buildings, including a mixed-use building containing 1,481 square feet of commercial space on the ground floor and 2 residential units and a two-story residential building containing four residential units. As discussed in Section 3.10, Population and Housing, the proposed project would result in approximately 14 new residents at the project site. According to the United States Environmental Protection Agency (U.S. EPA), a single person uses approximately 82 gallons per day (gpd) of water at home,[73] and retail uses use approximately 5 gallons of water per square foot per year.[74] Therefore, implementation of the proposed project is anticipated to require approximately 1,168 gpd of water (approximately 1,148 gpd associated with the residential uses and 20 gpd associated with the commercial uses). This accounts for less than 0.001 percent of EBMUD's projected service-wide daily water demand for 2025. Furthermore, EBMUD's projected water demand accounts for projected growth within the region as identified by the Association of Bay Area Governments. As the proposed project would be consistent with the General Plan and Zoning designations for the project site, water demand associated with the project site has been accommodated in EBMUD's supply and

71 East Bay Municipal Utility District (EBMUD). 2021a. *2020 Urban Water Management Plan*. June.

72 East Bay Municipal Utility District (EBMUD). 2021a. *2020 Urban Water Management Plan*, Table 3-1: Average Annual Water Demand Forecast 2050 Demand Projections (MGD). June.

73 United States Environmental Protection Agency (US EPA). n.d. *WaterSense, Statistics and Facts.* Website: https://www.epa.gov/watersense/statistics-and-facts (accessed August 30, 2024)

74 US EPA. 2023b. *WaterSense, Energy Star Portfolio Manager, U.S. Water Use Intensity by Property Type Technical Reference.* June.

demand projections. Therefore, EBMUD would not require new or expanded water entitlements to serve the proposed project.

EBMUD completed development of a revised Water Supply Management Program (WSMP) 2040 in April of 2012, which is the District's plan for providing water to its customers for a span of 30 years.[75] According to the WSMP, EBMUD's water supplies are estimated to be sufficient during the planning period (2010–2040) in normal and single dry years. Therefore, EBMUD would have adequate water supply to provide water service to the proposed project and the impact related to sufficient water supplies would be less than significant.

The WSMP 2040 emphasizes maximum conservation and recycling strategies, with a total of 50 mgd of future supply to be provided from those two component categories. However, looking toward 2040, EBMUD's current supply is insufficient to meet customer needs during multi-year droughts despite EBMUD's aggressive water conservation and recycled water programs.[76] According to the WSMP, the combination of rationing, conservation, and raw and recycled water will satisfy increased customer demand through 2040.[77] Supplemental supply will also be needed to keep rationing at a lower level and to meet the need for water in drought years.

Future users of the site (and all EBMUD customers) would be required to comply with Policy EM-26 in the City of Berkeley General Plan that promotes water conservation through City programs and requirements, including cooperation with EBMUD to make recycled water available for irrigation and other uses. Policy EM-26 of the City's General Plan, as described below, provides direction for incorporating water conservation measures into the project design.

> **Policy EM-26:** Water Conservation. Promote water conservation through City programs and requirements.
>
> - **Action EM-26 A**: Encourage drought-tolerant landscaping and low-flow irrigation systems.
>
> - **Action EM-26 B**: Consider participation in the East Bay Municipal Utility District's East Bay-shore Recycled Water Project to make recycled water available for irrigation and other non-potable uses.

Compliance with Policy EM-26 by incorporating water conservation measures, such as drought-tolerant landscaping, into the proposed project's design would ensure efficient use of water at the project site and minimize the project's potential water demand such that the project's impact would be less than significant.

EBMUD also imposes a system capacity charge on new developments to fund system maintenance and the development of new water sources. The project sponsor would be required to pay this fee and undertake water conservation measures to conserve water such as the installation of low-flow

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75 East Bay Municipal Utility District (EBMUD). 2012. *Water Supply Management Program 2040 Plan*. April.
76 East Bay Municipal Utility District (EBMUD). 2016. Op. cit.
77 East Bay Municipal Utility District (EBMUD). 2012. Op. cit.

toilets. In addition, the project sponsor would also be required to comply with the following condition of approval related to water efficient landscaping:

> ***COA: Water Efficient Landscaping*** *(prior to the issuance of any building [construction] permit)*. Landscaping, totaling 500 square feet of more of new landscaping or 2,500 square feet or more of renovated irrigated area, shall comply with the State's Model Water Efficient Landscape Ordinance (MWELO). MWELO-compliant landscape documentation including a planting, grading, and irrigation plan shall be included in site plans. Water budget calculations are also required for landscapes of 2,500 square feet or more and shall be included in site plans. The reference evapotranspiration rate for Berkeley is 41.8.

As required by the City, the project sponsor would also be required to provide a Bay-Friendly Basics Landscape Checklist that includes detailed notes of any measures that would not be fully met by the project (if any).[78] Landscape improvements are required to be consistent with the current versions of the State's Water Efficient Landscape Ordinance and Section 31 of EBMUD's Water Service Regulations (Water Efficiency Requirements), which require applicable water-efficiency measures be installed on water-using equipment at the project sponsor's expense. The project sponsor would also be required to coordinate with EBMUD and the City of Berkeley Fire Department to assess fire flow requirements and comply with them as part of the project. With compliance with policies contained in the City's General Plan, COAs, and other applicable City requirements, impacts associated with project demand and water supply would be less than significant.

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

In Berkeley, sanitary sewage flows through the City of Berkeley's collection system to the EBMUD's North Interceptor, which then directly flows to EBMUD's Main Wastewater Treatment Plant (MWWTP) in the City of Oakland for treatment and disposal. Berkeley's collection system consists of lower laterals and sewer mains. Buildings connect to the City's collection system through the upper laterals which are privately owned and maintained. Within the City of Berkeley, there are approximately 260 miles of sanitary sewer mains, with an estimated 28,000 lateral connections. The sewer mains vary from 1 to 100 years old, and vary in size from 6 to 48 inches in diameter.[79] The City of Berkeley, EBMUD, and the MWWTP serve the project site and the surrounding area.

The City operates sanitary sewer infrastructure located in the surrounding streets and sidewalks. Facilities typically range in size from 8 inches to 18 inches in diameter. The proposed project would connect to existing sanitary sewer systems within the vicinity of the project site and would be required to conduct sewer capacity analysis to determine if the existing sewer infrastructure would be able to accommodate wastewater flows from the project and identify impacts to flow capacity, pipeline alignments, need for easements, and chemical and physical character of wastewater. If the sewer capacity analysis determines that there is insufficient capacity, the project developer will be

78 Berkeley, City of. 2016b. *Stormwater Requirements Overview*. June 6.

79 East Bay Municipal Utility District (EBMUD). 2021a. *2020 Urban Water Management Plan*. June.

required to improve the infrastructure in order to accommodate increased wastewater flows. In addition, the project sponsor would be required to coordinate with EBMUD, the City's Fire Department, and the City's Public Works Department to assess water and wastewater flow and ensure the proposed project would comply with the applicable requirements.

The City's sewer system is connected to trunk lines that convey flows to the MWWTP. The MWWTP has a primary treatment capacity of 320 million gallons per day (mgd) and a secondary treatment capacity of 168 mgd.[80] Storage basins provide plant capacity for a short-term hydraulic peak of 415 mgd. The average annual daily flow into the MWWTP is approximately 63 mgd, representing approximately 37.5 percent of the plant's secondary treatment capacity. Treated effluent is disinfected, dechlorinated, and discharged through a deep-water outfall 1 mile off the East Bay shoreline into San Francisco Bay.

In compliance with the July 28, 2014, Consent Decree, the City has implemented a long-term mandated Sanitary Sewer Capital Improvement Program to eliminate Sanitary Sewer Overflows and reduce stormwater Infiltration and Inflow (I/I) in to the sanitary sewer system. Under this program, the City utilizes a comprehensive asset management approach based on complex and evolving hydrologic and hydraulic modeling and condition assessments to repair, replace, or upgrade the City's portion of the sanitary sewer system, ultimately to aid EBMUD in eliminating discharges from their Wet Weather Facilities (which provide additional treatment capacity during storm events) by the end of 2035.

The proposed project would generate wastewater, treated by the EBMUD treatment facilities. EBMUD is required to meet applicable RWQCB treatment requirements in compliance with NPDES requirements. In addition, the proposed project must not use any of EBMUD's wet weather treatment capacity and the property owners will be responsible for maintaining their private sewer lateral and site plumbing to ensure no I/I enters the sewer system pursuant to BMC Sections 17.24.030(A)(2), 17.24.030(A)(3) and 17.06.020. In the absence of an official wastewater generation estimate, wastewater generated by full buildout associated with the zoning and General Plan amendments is assumed to be 90 percent of water demand, or 1,051 gpd (refer to Threshold 3.19.b, above), which comprises less than one percent of the remaining capacity of the MWWTP. Therefore, the proposed project would not generate wastewater exceeding the wastewater treatment requirements of the RWQCB.

Wastewater discharges that may occur at the project site would be required to comply with the terms of the applicable MRP and may be subject to monitoring by EBMUD to ensure that the development's sewage discharge does not impair the ability of the MWWTP to meet wastewater treatment objectives and requirements. Therefore, the impact to wastewater treatment requirements would be less than significant.

[80] East Bay Municipal Utility District (EBMUD). 2016. Wastewater Treatment. Website: www.ebmud.com/wastewater/collection-treatment/wastewater-treatment (accessed June 13, 2024)

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? ***(Less Than Significant Impact)***

The City of Berkeley operates its own refuse collection system. The City provides curbside recycling and refuse collection services to the project site. There are two permitted landfills in Alameda County with the capacity to accommodate solid waste generated in Berkeley: Altamont Landfill and the Vasco Road Sanitary Landfill. The combined permitted capacity of waste for these two landfills is 95 million cubic yards, which the proposed project would not exceed. Solid waste from the site would be transported to the Berkeley Transfer Station, located at 1021 Second Street, and then on to the Altamont Landfill and Resource Recovery Facility, located near the Altamont Pass, northeast of the City of Livermore. The proposed project would be served by a landfill with sufficient capacity to accommodate the project's waste disposal needs and this impact would be less than significant.

The project site is currently developed with a single-story commercial building that has remained vacant since March 2018 and two accessory structures. Implementation of the proposed project would include the demolition of all existing structures, generating approximately 4,750 tons of demolition waste. The proposed project would be subject to the Waste Diversion and Universal Waste disposal requirements of BMC Chapter 19.37 and all demolition and construction waste would be recycled consistent with State and City requirements. The State requires 65 percent diversion (recycling and reuse) of construction waste, and the City requires 100 percent of concrete, asphalt, and land clearing debris to be diverted from landfills. The project sponsor would be required to prepare and submit to the City a Construction Demolition Recycling Plan prior to issuance of a Demolition Permit for the proposed project. The purpose of the plan is to divert as much debris as possible from the waste stream, consistent with, and in addition to, State, and City requirements.

Prior to approval of large development projects, the City of Berkeley Solid Waste Management Division staff reviews proposed plans for the adequate design of trash and recycling facilities. Alameda County Waste Management Authority (ACWMA) Ordinance 2008-01 requires businesses in Alameda County generating four or more cubic yards of garbage per week to separate all plant debris from garbage and recyclable materials. Additionally, development projects that require a use permit are required to comply with the following COA that addresses these potential impacts:

> ***COA: Recycling and Organics Collection.*** Applicant shall provide recycling and organics collection areas for occupants, clearly marked on plans, which comply with the Alameda County Organics Reduction and Recycling Ordinance (2021-02). Contact the Zero Waste Division's Recycling Program Manager, Julia A. Heath, at jheath@berkeleyca.gov.

The proposed project would also be required to provide trash enclosure space (inside or outside for large dumpsters) and trash, compost, fiber recycling and container recycling collection bins be co-located in tenant facing trash rooms.

According to the U.S. EPA, a single person generates approximately 4.9 pounds of solid waste per day (residential)[81] and commercial uses generate approximately 10.53 pounds of solid waste per employee per day.[82] As discussed in Section 3.10, implementation of the proposed project would result in approximately 14 residents and 6 new employees at the project site. Therefore, the proposed project would generate approximately 131.8 pounds of solid waste per day (approximately 68.6 pounds per day associated with the residential uses and 63.2 pounds per day associated with the commercial uses). This represents a negligible increase in solid waste generated in the City and would not exceed the combined permitted capacity of waste for the two permitted landfills in Alameda County.

Therefore, the proposed project would not generate solid waste in excess of local standards, and this impact would be less than significant.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? ***(Less Than Significant Impact)***

Refer to Threshold 3.13.f. The proposed project would comply with all federal, State, and local solid waste statutes and/or regulations related to project solid waste.

81 US EPA. 2023a. *Facts and Figures about Materials, Waste and Recycling.* Website: https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials (accessed August 30, 2024).

82 California Department of Resources Recycling and Recovery (CalRecycle). 2019. *Estimated Solid Waste Generation Rates.* Website: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates (accessed August 30, 2024).

3.14 MANDATORY FINDINGS OF SIGNIFICANCE

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

a. Does the project have the potential to 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? ***(Less Than Significant with Mitigation Incorporated)***

As discussed in Sections 3.3, Cultural Resources, and 3.12, Tribal Cultural Resources, no historical or archaeological resources as defined by *CEQA Guidelines* Section 15064.5(b)(2)(A)(B) are known to occur at the project site. Implementation of the City's COA related to the accidental discovery of potential archeological resources (*COA: Archaeological Resources)*, human remains (*COA: Human Remains)*, and tribal cultural resources (*COA: Halt Work/Unanticipated Discovery of Tribal Cultural Resources*) would ensure that impacts related to the elimination of important examples of the major periods of California history or prehistory would be less than significant.

As discussed in Section 3.2, Biological Resources, the proposed project would not 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. In addition, implementation of Mitigation Measures BIO-1a through BIO-1e and adherence to City *COA: Avoid Disturbance of Nesting Birds* would ensure that potential impacts related to special-status species, are reduced to a less than significant level. Therefore, with the incorporation of mitigation measures and City COAs, development of the proposed project would not: (1) degrade the quality of the environment; (2) substantially reduce the habitat of a fish or wildlife species; (3) cause a fish or wildlife species population to drop below self-sustaining levels; (4) threaten to eliminate a plant or animal community; (5) reduce the number or

restrict the range of a rare or endangered plant or animal; or (6) eliminate important examples of the major periods of California history. With implementation of mitigation measures, impacts would be less than significant.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? ***(Less Than Significant with Mitigation Incorporated)***

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound to increase other environmental impacts." Section 15130 of the *CEQA Guidelines* requires evaluation of potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of "reasonably foreseeable probable future" projects, per *CEQA Guidelines* Section 15355. Cumulative impacts can result from a combination of the proposed project together with other closely related projects that cause an adverse change in the environment. Cumulative impacts can result from individually minor but collectively significant projects taking place over time.

For all of the topics discussed in this Initial Study, the proposed project's impacts would be individually limited and not cumulatively considerable because the impacts are either temporary in nature (i.e., limited to the construction period) or limited to the project site (i.e., accidental discovery). Additionally, for each of the topics analyzed in the Initial Study, the proposed project would have no impacts, less than significant impacts, or less than significant with mitigation incorporated, and therefore would not substantially contribute to any potential cumulative impacts.

When future development proposals are considered by the City, these proposals would undergo environmental review pursuant to CEQA, and when necessary, mitigation measures would be adopted as appropriate. In most cases, this environmental review and compliance with project conditions of approval, relevant policies and mitigation measures, and the General Plan, and compliance with applicable regulations would ensure that significant impacts would be avoided or otherwise mitigated to less than significant levels.

Implementation of these measures would ensure that the impacts of the proposed project and other projects within the vicinity would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development. Therefore, this impact would be less than significant with mitigation incorporated.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ***(No Impact)***

The proposed project would not result in any environmental effects that would cause substantial direct or indirect adverse effects to human beings, beyond those topics discussed in Sections 3.1 through 3.13 of this Initial Study.

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