APPENDIX A

APPLICABLE PROGRAM-LEVEL MITIGATION MEASURES AND CONTINUING BEST PRACTICES

Applicable Program-Level Mitigation Measures and Continuing Best Practices

The table below identifies mitigation measures and Continuing Best Practices (CBPs) from the 2021 LRDP EIR that are applicable to the Bancroft Parking Structure Replacement Project.

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
Aesthetics	Mitigation Measure	AES-3	In the event that UC Berkeley installs a solar array in the Hill Campus East, or elsewhere in the LRDP Planning Area, prior to the installation of the photovoltaic panels the Campus Architect shall review the panel specifications and construction plans so that the panels are designed and installed to ensure the following: • The angle at which panels are installed precludes, or minimizes to the maximum extent practicable, glare observed by viewers on the ground. • The reflectivity of materials used shall not be greater than the reflectivity of standard materials used in residential and commercial developments. • The project would not have potential significant glare or reflectivity impacts to viewers on the ground.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan
Air Quality	Mitigation Measure	AIR-2.1	UC Berkeley shall use equipment that meets the United States Environmental Protection Agency Tier 4 Final emissions standards or higher for off-road diesel-powered construction equipment with more than 50 horsepower, unless it can be demonstrated to UC Berkeley that such equipment is not commercially available. For purposes of this mitigation measure, "commercially available" shall mean the availability of Tier 4 Final engines similar to the availability for other large-scale construction projects in the city occurring at the same time and taking into consideration factors such as (i) potential significant delays to critical-path timing of construction and (ii) geographic proximity to the project site of Tier 4 Final equipment. Where such equipment is not commercially available, as demonstrated by the construction contractor, Tier 4 interim equipment shall be used. Where Tier 4 interim equipment is not commercially available, as demonstrated by the contractor, Tier 3 equipment retrofitted with a California Air Resources Board's Level 3 Verified Diesel Emissions Control Strategy (VDECS) shall be used. The requirement to use Tier 4 Final equipment or higher for engines over 50 horsepower shall be identified in construction bids and the following shall also be completed: • Prior to construction, the project engineer shall ensure that all demolition and grading plans clearly show the requirement for United States Environmental Protection Agency Tier 4 Final or higher emissions standards for construction equipment over 50 horsepower. • During construction, the construction contractor shall maintain a list of all operating equipment in use over 20 hours on the construction site for verification by UC Berkeley.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan

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			• The construction equipment list shall state the makes, models, and numbers of construction equipment on-site. • To the extent that equipment is available and cost-effective, contractors shall use electric, hybrid, or alternate-fueled off-road construction equipment. • Contractors shall use electric construction tools, such as saws, drills, and compressors, where grid electricity is available. • Construction activities shall be prohibited when the Air Quality Index (AQI), as measured by the closest Bay Area Air Quality Management District monitoring station (e.g., Berkeley Aquatic Center), is greater than 150 for particulates and ozone in the project area. • Contractors shall provide information on transit and ridesharing programs and services to construction employees. Additionally, meal options on-site and/or shuttles between the facility and nearby meal destinations for construction employees shall be provided.	
Air Quality	Mitigation Measure	AIR-2.2	To reduce Reactive Organic Gas emissions, for interior architectural coatings, UC Berkeley shall utilize certified (e.g., Greenguard or Green Seal) low-Volatile Organic Compound (VOC) paints or, when feasible, no-VOC paints (i.e., less than 5 grams per liter of VOC). UC Berkeley shall verify that the requirement to use low-VOC (and/or no-VOC) paints is identified in construction bids and on architectural plans.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan
Air Quality	Mitigation Measure	AIR-3.1	Construction projects subject to CEQA on sites one acre or greater, within 1,000 feet of residential and other sensitive land use projects (e.g., hospitals, schools, nursing homes, day care centers), as measured from the property line of the project to the property line of the source/edge of the sensitive land use, that utilize off-road equipment of 50 horsepower or more and, that occur for more than 12 months of active construction (i.e., exclusive of interior renovations), shall require preparation of a construction health risk assessment (HRA) prior to future discretionary project approval, as recommended in the current HRA Guidance Manual prepared by the California Office of Environmental Health Hazard Assessment (OEHHA). Additionally, UC Berkeley shall consider whether unusual circumstances warrant evaluation of construction health risk for projects with construction durations of less than 12 months or on development sites smaller than one acre. For example, unusual circumstances would include sites that require extensive site preparation with more than 10,000 cubic yards of excavation. The construction HRA shall generally be prepared in accordance with policies and procedures of the OEHHA and the Bay Area Air Quality Management District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children ages 0 to 16 years. If the construction HRA shows that the incremental cancer risk exceeds 10 in a million (10E-06), PM2.5 concentrations exceed 0.3 µg/m3, or the appropriate noncancer hazard index exceeds 1.0, the construction HRA shall be required to identify all feasible measures capable of reducing potential cancer and noncancer risks to an acceptable level to the extent feasible (i.e., below 10 in a million, a hazard index of 1.0, or 0.3 µg/m3 of PM2.5), including appropriate enforcement mechanisms. Examples of feasible measures include use of U.S. Environmental Protection Agency rated Tier 4 construction equipment, diesel	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan

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			particulate filters, and electric equipment. The construction health risk assessment shall be submitted to UC Berkeley's Office of Environment, Health & Safety for review and approval. Measures identified in the health risk assessment shall be included in bid documents, purchase orders, contracts, and grading plans prepared for the development projects. Compliance with these measures shall be verified during regular construction site inspections.	
Biological Resources	Mitigation Measure	BIO-4	Structures and buildings that are new or are taller than existing structures and buildings shall be designed to minimize the potential risk of bird collisions. This should at a minimum include the following design considerations and management strategies: (1) avoid the use of highly reflective glass as an exterior treatment, which appears to reproduce natural habitat and can be attractive to some birds; (2) limit reflectivity and prevent exterior glass from attracting birds in building plans by utilizing low-reflectivity glass and providing other non-attractive surface treatments; (3) use low-reflectivity glass or other bird safe glazing treatments for the majority of the building's glass surface, not just the lower levels; (4) for office and commercial buildings, interior light "pollution" should be reduced during evening hours through the use of a lighting control system programmed to shut off during non-work hours and between 10 p.m. and sunrise; (5) exterior lighting should be directed downward and screened to minimize illuminating the exterior of the building at night, except as needed for safety and security; (6) untreated glass skyways or walkways, freestanding glass walls, and transparent building corners should be avoided; (7) transparent glass should not be allowed at the rooflines of buildings, including in conjunction with green roofs; and (8) all roof mechanical equipment should preferably be covered by low-profile angled roofing or other treatments so that obstacles to bird flight are minimized. These strategies shall be incorporated at the direction of the Campus Architect during plan review, and the Campus Architect shall confirm the incorporation of these strategies into architectural plans prior to building construction. The Campus Architect shall incorporate additional strategies to avoid or reduce avian collisions that are indicated by the best available science.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan
Cultural Resources	Mitigation Measure	CUL-1.1a	If a project could cause a substantial adverse change in features that convey the significance of a historical resource that is designated or has been found eligible or potentially eligible for designation, or has not been evaluated but is more than 45 years of age, UC Berkeley shall engage the services of a professional meeting the Secretary of the Interior's Professional Qualification Standards in Architectural History to complete a historic resource assessment, overseen by the UC Berkeley Office of Physical & Environmental Planning. The assessment shall provide background information on the history and development of the resource and, in particular, shall evaluate whether the resource appears to be eligible for National Register, California Register, or local landmark listing. The assessment shall also evaluate whether the proposed treatment of the historical resource is in conformance with the Secretary of the Interior's Standards for Rehabilitation (the Standards). If the proposed project is found to not be in conformance with the Standards, this assessment shall include recommendations for how to modify the project design so as to bring it into conformance. The Campus Architect shall verify compliance with this measure prior to the initiation of any site or building demolition or construction activities.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan

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Cultural Resources	Mitigation Measure	CUL-2	For construction projects that include substantial ground-disturbing activities (including, but not limited to, soil removal, parcel grading, new utility trenching, and foundation-related excavation), UC Berkeley shall implement the following steps to ensure impacts to archaeological resources will be less than significant. ● All Projects with Ground-Disturbing Activities. ○ Prior to soil disturbance, UC Berkeley shall confirm that contractors have been notified of the procedures for the identification of federal- or State-eligible cultural resources, and that the construction crews are aware of the potential for previously undiscovered archaeological resources or tribal cultural resources on site, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during project-related work. ○ If a resource is discovered during construction (whether or not an archaeologist is present), the following measures shall be implemented: - All soil disturbing work within 35 feet of the find shall cease. - UC Berkeley shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project. - Any previously undiscovered resources found during construction activities shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of the California Environmental Quality Act (CEQA) criteria by a qualified archaeologist. - If the resource is a tribal cultural resource, the consulting archaeologist, approved by UC Berkeley in consultation with the appropriate tribe as determined by the Native American Heritage Commission, shall consult with the appropriate tribe to evaluate the significance of the resource and to recommend appropriate and feasible avoidance, testing, preservation or mitigation measures, in light of factors such as the significance of the find, proposed project design, costs, and other considerations. - If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be implemented. - If the resource is a non-tribal resource determined significant under CEQA, a qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. - The archaeologist shall also perform appropriate technical analyses; prepare a comprehensive report complete with methods, results, and recommendations; and provide for the permanent curation of the recovered resources if appropriate. - The report shall be submitted to the relevant city (if it falls under Berkeley or Oakland boundaries), California Historic Resources Information System Northwest Information Center, and the State Historic Preservation Office, if required. ● Areas with High Archaeological Sensitivity. In addition to the requirements above for all construction projects with ground-disturbing activities, for projects in areas with moderately high to extreme archaeological sensitivity (as shown on the confidential Figure 11, Prehistoric Cultural Sensitivity Overlay Analysis Results, prepared for the 2021	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan

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			LRDP Update EIR) ground-disturbing activities shall be monitored from the outset. Monitoring shall occur for soil removal, parcel grading, new utility trenching, and foundation-related excavation in those areas that extend into previously undisturbed soils. If the resources are tribal, archaeological monitoring must be undertaken by a qualified archaeologist approved by UC Berkeley in consultation with the appropriate tribe as determined by the Native American Heritage Commission or the appropriate tribe, who is familiar with a wide range of prehistoric archaeological or tribal remains and is conversant in artifact identification, human and faunal bone, soil descriptions, and interpretation. Based on project-specific daily construction schedules, field conditions, and archaeological observations, full-time monitoring may not be warranted following initial observations. ● Sites with Known Archaeological Resources. In the event the disturbance of a site with known archaeological or tribal cultural resources cannot be avoided, in addition to the requirements above for all construction projects with ground-disturbing activities, for project sites with known on-site archaeological or tribal cultural resources, the following additional actions shall be implemented prior to ground disturbance: ○ UC Berkeley, in consultation with the appropriate tribe, will retain a qualified archaeologist to conduct a subsurface investigation of the project site, and to ascertain the extent of the deposit of any buried archaeological materials relative to the project's area of potential effects. The archaeologist shall prepare a site record and, upon tribal approval, it shall be filed with the California Historical Resource Information System. ○ If the resource extends into the project's area of potential effects, the resource shall be evaluated by a qualified archaeologist approved by UC Berkeley in consultation with the appropriate tribe. UC Berkeley shall consider this evaluation in determining whether the resource qualifies as a historical resource or a unique archaeological resource under the criteria of California Environmental Quality Act (CEQA) Guidelines Section 15064.5. - If the resource does not qualify, no further mitigation is required unless there is a discovery of additional resources during construction (as required above for all construction projects with ground-disturbing activities). - If a resource is determined to qualify as an historical resource or a unique archaeological resource in accordance with CEQA, UC Berkeley shall consult with the appropriate tribe (in the case of Native American sites) and a qualified archaeologist, approved by UC Berkeley in consultation with the appropriate tribe, to mitigate the effect through data recovery if appropriate to the resource or, if data recovery is infeasible, to consider means of avoiding or reducing ground disturbance within the site boundaries, including where and if feasible, minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that would permit avoidance or substantial preservation in place of the resource. A written report of the results of investigations shall be prepared by a qualified archaeologist and, upon tribal approval, filed with the University Archives/ Bancroft Library and the California Historic Resources Information System Northwest Information Center.	
Geology and Soils	Mitigation Measure	GEO-5	For ground-disturbing activities within highly sensitive geologic formations (i.e., Franciscan Assemblage, Great Valley Sequence, Orinda Formation, Claremont Chert, unnamed mudstone, or older alluvium, as shown on Figure 5.6-1, Geologic Map, of the 2021 LRDP Update EIR), if pre-construction testing does not take place, ground-disturbing activities shall implement the following measures. "Ground-disturbing activities" shall include soil removal, parcel	2021 LRDP EIR Table 6-1, Mitigation Monitoring and

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			grading, utility trenching, and foundation-related excavation in those areas that extend into previously undisturbed soils. ● UC Berkeley shall provide a paleontological resources awareness training program to all construction personnel active on the project site during earth moving activities. The first training will be provided prior to the initiation of ground-disturbing activities by a qualified paleontologist. The program will include relevant information regarding fossils and fossil-bearing formations that may be encountered. The training will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site. ● If any paleontological resources are encountered during ground-disturbing activities, the contractor shall ensure that activities in the immediate area of the find are halted and that UC Berkeley is informed. UC Berkeley shall retain a qualified paleontologist to evaluate the discovery and recommend appropriate treatment options pursuant to guidelines developed by the Society of Vertebrate Paleontology, including development and implementation of a paleontological resource impact mitigation program by a qualified paleontologist for treatment of the particular resource, if applicable. These measures may include, but not be limited to the following: ○ salvage of unearthed fossil remains and/or traces (e.g., tracks, trails, burrows); ○ screen washing to recover small specimens; ○ preparation of salvaged fossils to a point of being ready for curation (e.g., removal of enclosing matrix, stabilization and repair of specimens, and construction of reinforced support cradles); and ○ identification, cataloging, curation, and provision for repository storage of prepared fossil specimens.	Reporting Program for the Long Range Development Plan
Greenhouse Gas Emissions	Mitigation Measure	GHG-2	UC Berkeley shall make the following separate, though overlapping, greenhouse gas (GHG) emission reduction commitments (1) By 2036, UC Berkeley shall offset 67 percent of GHG emissions; and (2) By 2045 and thereafter, UC Berkeley shall achieve carbon neutrality (100 percent offset). Years 2036 and 2045 reduction targets are required to be achieved based on actual emission calculations completed in the future, as discussed below under "Measure Monitoring and Reporting," and may therefore change over time. UC Sustainable Practices Policy. UC Berkeley will purchase voluntary carbon credits as the final action to reach the GHG emission reduction targets outlined in the UC Sustainable Practices Policy. As part of the University Carbon Neutrality Initiative, internal guidelines have been developed to ensure that any use of credits for this purpose will result in additional, verified GHG emissions reductions from actions that align as much as possible with UC Berkeley's research, teaching, and public service mission. Emissions Reduction Options. UC Berkeley shall do one or more of the following options to reduce GHG emissions generated by the proposed LRDP Update to achieve the measure performance standards. 1. Option 1: On-site GHG Reduction Actions. Implement on-site GHG reduction actions at UC Berkeley specified in the UC Sustainable Practices Policy and UC Berkeley sustainability plans, standards and policies. 2. Option 2: Voluntary and UC Developed Carbon Offsets. In addition to compliance offsets required by cap and trade, UC Berkeley may purchase GHG carbon offsets from a voluntary GHG carbon offset provider with an	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan

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			established protocol that requires projects generating GHG carbon offsets to demonstrate that the reduction of GHG emissions are real, permanent, quantifiable, verifiable, enforceable, and additional (per the definition in California Health and Safety Code Sections 38562(d)(1) and (2)).UC Berkeley may purchase GHG carbon offsets from UC developed voluntary carbon offset projects that are real, permanent, quantifiable, peer verifiable, enforceable, and additional. Definitions for these terms follow. a. Real: Estimated GHG reductions should not be an artifact of incomplete or inaccurate emissions accounting. Methods for quantifying emission reductions should be conservative to avoid overstating a project's effects. The effects of a project on GHG emissions must be comprehensively accounted for, including unintended effects (often referred to as "leakage"). To ensure that GHG reductions are real, CARB requires the reduction be a direct reduction within a confined project boundary. b. Additional: GHG reductions must be additional to any that would have occurred in the absence of the Climate Action Reserve, or of a market for GHG reductions generally. "Business as usual" reductions (i.e., those that would occur in the absence of a GHG reduction market) should not be eligible for registration. c. Permanent: To function as offsets to GHG emissions, GHG reductions must effectively be "permanent." This means, in general, that any net reversal in GHG reductions used to offset emissions must be fully accounted for and compensated through the achievement of additional reductions. d. Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the offset project boundary, while accounting for uncertainty and activity-shifting leakage and market-shifting leakage. e. Verified: GHG reductions must result from activities that have been verified. Verification requires third-party (or peer review if UC-developed voluntary carbon offset projects) of monitoring data for a project to ensure the data are complete and accurate. f. Enforceable: The emission reductions from offset must be backed by a legal instrument or contract that defines exclusive ownership and can be enforced within the legal system in the country in which the offset project occurs or through other compulsory means. Please note that for this mitigation measure, only credits originating within the United States are allowed. Mitigation Reporting. As a CARB-covered entity, UC Berkeley will ensure emissions generated by the cogeneration plant and other stationary sources comply with CARB's Cap and Trade Program. Likewise, UC Berkeley will implement the UC Sustainable Practices Policy to meet the requirement of carbon neutrality for Scope 1 and 2 emissions by 2025 and carbon neutrality for Scope 3 emissions by 2045, as described above. These commitments will be incorporated into UC Berkeley's annual GHG inventory, which is used to track GHG emissions and sources on the UC Berkeley campus. GHG reductions achieved by the on-site and off-site actions will be incorporated into the annual GHG inventory and annual reporting practices established by the UC Sustainable Practices Policy. As part of this reporting, the estimated annual emissions shall then be compared to the measure performance standards (i.e.,	

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			67 percent reduction by 2036 and 100 percent by 2045) to determine the level of additional GHG reductions (if any) that may be required.	
Noise	Mitigation Measure	NOI-1	For construction projects that last longer than 30 days, and where construction noise could exceed the applicable noise thresholds of significance (see City of Berkeley Municipal Code Section 13.40.070, Prohibited Acts, and City of Oakland Municipal Code Section 17.120.050(A), Noise (Residential Zone Noise Level Standards)) for maximum construction noise levels (dBA Lmax), or that involve impulse equipment such as jackhammers, hoe rams, and pile driving, temporary noise barriers at least 12 feet high will be erected, as necessary and feasible, to reduce construction noise levels. Temporary noise barriers will be constructed with solid material with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the temporary noise barrier and may be lined on the construction side with an acoustical blanket, curtain, or equivalent absorptive material. UC Berkeley shall verify compliance with this measure prior to issuance of demolition, grading, and/or building permits.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan
Noise	Mitigation Measure	NOI-2	If any vibration causing construction activities/equipment are anticipated to be used for future development projects, UC Berkeley shall implement the following steps to ensure impacts from vibration causing construction activities/equipment will be less than significant. • Step 1 (Activity/Equipment Screening Distances): UC Berkeley shall use the construction vibration screening standards shown below based on Federal Transit Administration criteria to determine if the construction activity/equipment is within the vibration screening distances that could cause building damage/human annoyance or sensitive equipment disturbance. If the construction activity/equipment is within the screening distance, then Step 2 (Alternative Methods/Equipment) shall be implemented.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan

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Screening Distances to PPV in/sec Threshold: Building Damage

Activity/Equipment	Reference Vibration Levels (in/sec PPV) at 25 feet	Screening Level Distance in feet for 0.20 in/sec PPV [a]	Screening Level Distance in feet for 0.12 in/sec PPV [b]
Pile Driving	1.518	97	136
Caisson Drilling	0.089	15	21
Vibratory Roller	0.21	26	37
Large Bulldozer	0.089	15	21

Screening Distance to VdB Threshold: Human Annoyance and Sensitive Equipment Disturbance

Activity/Equipment	Reference Vibration Levels (VdB) at 25 feet	Screening Level Distance in feet for 72 VdB [c]	Screening Level Distance in feet for 65 VdB [d]
Pile Driving	112	520	890
Caisson Drilling	87	80	140
Vibratory Roller	94	140	240
Large Bulldozer	87	80	140

Notes: Peak Particle Velocity inches per second (PPV in/sec); Vibration Decibel (VdB).
a. FTA Building Category III, Non-engineered timber and masonry buildings (residential).
b. FTA Building Category IV, Buildings extremely susceptible to vibration damage (historic).
c. FTA Land Use Category 2, Residences and buildings where people normally sleep.
d. FTA Land Use Category 1, Buildings where vibration would interfere with interior operations.
Source: Federal Transit Administration, 2018, Transit Noise and Vibration Impact Assessment.

- Step 2 (Alternative Methods/Equipment): When the anticipated vibration-causing construction activity/equipment is within the screening standards in Step 1 (Activity/Equipment Screening Distances), UC Berkeley shall consider whether alternative methods/equipment are available and shall verify that the alternative method/equipment is shown on the construction plans prior to the beginning of construction. Alternative methods/equipment may include, but are not limited to:
  - For pile driving, the use of caisson drilling (drill piles), vibratory pile drivers, oscillating or rotating pile installation methods, pile pressing, "silent" piling, and jetting or partial jetting of piles into place using a water injection at the tip of the pile shall be used, where feasible.
  - For paving, use of a static roller in lieu of a vibratory roller shall be implemented.
  - For grading and earthwork activities, off-road equipment shall be limited to 100 horsepower or less.

Where alternative methods/equipment to vibration causing activities/equipment are not feasible, then Step 3 (Construction Vibration Monitoring Program) shall be implemented.

- Step 3 (Construction Vibration Monitoring Program): Prior to any project-related excavation, demolition or construction activity for projects within the screening distances listed in Step 1 (Activity/Equipment Screening

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			Distances) and where alternative methods/equipment to vibration causing activities/equipment are not feasible pursuant to Step 2 (Alternative Methods/Equipment), UC Berkeley shall prepare a construction vibration monitoring program. The program shall be prepared and implemented by a qualified acoustical consultant or structural engineer. Where the vibration sensitive receptors are historic resources, the program shall be prepared and implemented by a structural engineer with a minimum of five years of experience in the rehabilitation and restoration of historic buildings and a historic preservation architect meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualifications Standards. The program shall include the following: ○ Prepare an existing conditions study to establish the baseline condition of the vibration sensitive resources in the form of written descriptions with a photo survey, elevation survey, and crack-monitoring survey for the vibration-sensitive building or structure. The photo survey shall include internal and external crack monitoring in the structure, settlement, and distress, and document the condition of the foundation, walls and other structural elements in the interior and exterior of the building or structure. Surveys will be performed prior to, in regular intervals during, and after completion of all vibration-generating activity. Where receptors are historic resources, the study shall describe the physical characteristics of the resources that convey their historic significance. ○ Determine the number, type, and location of vibration sensors and establish a vibration velocity limit (as determined based on a detailed review of the proposed building), method (including locations and instrumentation) for monitoring vibrations during construction, and method for alerting responsible persons who have the authority to halt construction should limits be exceeded or damaged observed. ○ Perform monitoring surveys prior to, in regular intervals during, and after completion of all vibration-generating activity and report any changes to existing conditions, including, but not limited to, expansion of existing cracks, new spalls, other exterior deterioration, or any problems with character-defining features of a historic resource are discovered. UC Berkeley shall establish the frequency of monitoring and reporting, based upon the recommendations of the qualified acoustical consultant or structural engineer or if there are historic buildings, the historic architect and structural engineer. Monitoring reports shall be submitted to UC Berkeley's designated representative responsible for construction activities. ○ Develop a vibration monitoring and construction contingency plan, which shall identify where monitoring would be conducted, establish a vibration monitoring schedule, define structure-specific vibration limits, and require photo, elevation, and crack surveys to document conditions before and after demolition and construction activities. Construction contingencies would be identified for when vibration levels approach the limits. If vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structure. ○ Report substantial adverse impacts to vibration sensitive buildings including historic resources related to construction activities that are found during construction to UC Berkeley's designated representative responsible for construction activities. UC Berkeley's designated representative shall adhere to the monitoring team's recommendations for corrective measures, including halting construction or using different methods, in situations	

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			where demolition, excavation/construction activities would imminently endanger historic resources. UC Berkeley's designated representative would respond to any claims of damage by inspecting the affected property promptly, but in no case more than five working days after the claim was filed and received by UC Berkeley's designated representative. Any new cracks or other damage to any of the identified properties will be compared to pre-construction conditions and a determination made as to whether the proposed project could have caused such damage. In the event that the project is demonstrated to have caused any damage, such damage would be repaired to the pre-existing condition. Site visit reports and documents associated with claims processing would be provided to the relevant government body with jurisdiction over the neighboring historic resource, as necessary. ○ Conduct a post-survey on the structure where either monitoring has indicated high levels or complaints of damage and make appropriate repairs where damage has occurred as a result of construction activities. ○ Prepare a construction vibration monitoring report that summarizes the results of all vibration monitoring and submit the report after the completion of each phase identified in the project construction schedule. The vibration monitoring report shall include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits shall be included together with proper documentation supporting any such claims. The construction vibration monitoring report shall be submitted to UC Berkeley within two weeks upon completion of each phase identified in the project construction schedule. ○ Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted in one or more locations at the construction site	
Cultural Resources	Mitigation Measure	TCR-1	Implement Mitigation Measure CUL-2.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan
Wildfire	Mitigation Measure	WF-3	Electrical lines associated with future electrical infrastructure shall be undergrounded, where feasible. UC Berkeley shall verify compliance with this measure as part of plan review prior to construction.	2021 LRDP EIR Table 6-1, Mitigation Monitoring and Reporting Program for the Long Range Development Plan

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Aesthetics	Continuing Best Practice	AES-1	New projects will as a general rule conform to the Physical Design Framework. While the guidelines in the Physical Design Framework would not preclude alternate design concepts when such concepts present the best solution for a particular site, UC Berkeley will not depart from the Physical Design Framework except for solutions of extraordinary quality.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Aesthetics	Continuing Best Practice	AES-2	Major new campus projects will continue to be reviewed at each stage of design by the UC Berkeley Design Review Committee. The provisions of the LRDP, as well as project-specific design guidelines prepared for each such project, will guide these reviews.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Aesthetics	Continuing Best Practice	AES-6	Lighting for new development projects will be designed to include shields and cut-offs that minimize light spillage onto unintended surfaces and minimize atmospheric light pollution. The only exception to this principle will be in those areas where such features would be incompatible with the visual and/or historic character of the area.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Aesthetics	Continuing Best Practice	AES-7	As part of UC Berkeley's design review procedures, light and glare will be given specific consideration and measures will be incorporated into the project design to minimize both. In general, exterior surfaces will not be reflective; architectural screens and shading devices are preferable to reflective glass.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Air Quality	Continuing Best Practice	AIR-1	UC Berkeley will continue to implement the same or equivalent transportation programs as currently exist, that strive to reduce the use of single-occupant and/or greenhouse gas emitting (internal combustion engine) vehicles by students, staff, faculty, and visitors to the UC Berkeley campus.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Air Quality	Continuing Best Practice	AIR-2	UC Berkeley will continue to comply with the current Bay Area Air Quality Management District basic control measures for fugitive dust control. The requirement to comply with the basic control measures will be identified in construction bids. The Bay Area Air Quality Management District's current basic control measures include: • Water all active construction areas at least twice daily, or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary	2021 LRDP EIR Table 7-1, Continuing Best Practices

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			whenever wind speeds exceed 15 miles per hour. Reclaimed water will be used whenever possible. • Pave, apply water twice daily or as often as necessary to control dust, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). • Sweep daily (with water sweepers using reclaimed water if possible) or as often as needed all paved access roads, parking areas and staging areas at the construction site to control dust. • Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the project site, or as often as needed, to keep streets free of visible soil material. • Hydroseed or apply nontoxic soil stabilizers to inactive construction areas. • Enclose, cover, water twice daily, or apply nontoxic soil binders to exposed stockpiles (dirt, sand, etc.). • Limit vehicle traffic speeds on unpaved roads to 15 miles per hour. • Replant vegetation in disturbed areas as quickly as possible.	Implementation and Monitoring
Air Quality	Continuing Best Practice	AIR-3	UC Berkeley will continue to implement the following control measures to reduce emissions of diesel particulate matter and ozone precursors from construction equipment exhaust: • Equipment will be properly serviced and maintained in accordance with the manufacturer's recommendations. • Construction contractors will also ensure that all nonessential idling of construction equipment is restricted to five minutes or less, in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Biological Resources	Continuing Best Practice	BIO-1	Avoid disturbance or removal of bird nests protected under the federal Migratory Bird Treaty Act and California Department of Fish and Game Code when in active use. This will be accomplished by taking the following steps. • If tree removal and initial construction is proposed during the nesting season (February 1 to August 31), a focused survey for nesting raptors and other migratory birds will be conducted by a qualified biologist within 14 days prior to the onset of tree and vegetation removal in order to identify any active nests on the site and surrounding area within up to 500 feet of proposed construction, with the distance to be determined by a qualified biologist based on project location. The site will be resurveyed to confirm that no new nests have been established if vegetation removal and demolition has not been completed or if construction has been delayed or stopped for more than seven consecutive days during the nesting season. • If no active nests are identified during the construction survey period, or development is initiated during the non-breeding season (September 1 to January 31), tree and vegetation removal and building construction may proceed with no restrictions. • If bird nests are found, an adequate setback will be established around the nest location and vegetation removal, building demolition, and other construction activities shall be restricted within this no-disturbance zone until the qualified biologist has confirmed that birds have either not begun egg-laying and incubation, or that the juveniles from those nests are foraging independently and capable of survival outside the nest location. Required setback distances for the no-disturbance zone will be based on input received from the California Department of Fish and	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
			Wildlife and may vary depending on species and sensitivity to disturbance. As necessary, the no-disturbance zone will be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the site. • A report of findings will be prepared by the qualified biologist and submitted to the UC Berkeley's Office of Physical & Environmental Planning for review and approval prior to initiation of vegetation removal, building demolition and other construction activities during the nesting season. The report will either confirm absence of any active nests or confirm that any young are located within a designated no-disturbance zone and construction can proceed. No report of findings is required if vegetation removal and other construction activities are initiated during the non-nesting season and continue uninterrupted according to the above criteria.	
Biological Resources	Continuing Best Practice	BIO-2	Avoid remote potential for direct mortality of special-status bats and destruction of maternal roosts. A preconstruction roosting survey for special-status bat species, covering the project construction site and any affected buildings, will be conducted during the months of March through August prior to commencement of any project that may impact suitable maternal roosting habitat on the Campus Park, the Hill Campus East, and other UC Berkeley properties with suitable roosting habitat, as defined below. The survey will be conducted by a qualified biologist no more than 30 days prior to initiation of disturbance to potential roosting habitat. In the Hill Campus East, surveys will be conducted for new construction projects prior to grading, vegetation removal, and remodel or demolition of buildings with isolated attics and other suitable roosting habitat, as defined below. Suitable roosting habitat shall be determined as follows: In the Campus Park and other urbanized UC Berkeley properties, surveys will be conducted for construction projects prior to remodel or demolition of buildings with isolated attics. A report of findings will be prepared by the qualified biologist and submitted to the UC Berkeley project manager for review and approval prior to initiation of grading, vegetation removal, or construction activities. If any maternal roosts are detected during the months of March through August, construction activities will either stop or continue only after the roost is protected by an adequate setback approved by a qualified biologist. To the full extent feasible, the maternal roost location will be preserved, and alteration will only be allowed if a qualified biologist verifies that bats have completed rearing young, that the juveniles are foraging independently and capable of survival, and bats have been subsequently passively excluded from the roost location.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Biological Resources	Continuing Best Practice	BIO-9	Adverse effects to specimen trees and plants will be avoided. UC Berkeley will continue to implement the Campus Specimen Tree Program to reduce effects to specimen trees and flora. Replacement landscaping will be provided where specimen resources are adversely affected, either through salvage and transplanting of existing trees and shrubs or through new horticulturally appropriate replacement plantings, as directed by the Campus Landscape Architect.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Biological Resources	Continuing Best Practice	BIO-10	Implementation of the recommendations of the Landscape Master Plan and subsequent updates, and project-specific design guidelines, will provide for stewardship of existing landscaping, and use of replacement and expanded tree and shrub plantings to improve the important open space characteristics and resilience of the Campus Park.	2021 LRDP EIR Table 7-1, Continuing Best

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
			Native plantings and horticulturally appropriate species will continue to be used in future landscaping, serving to partially replace any trees lost as a result of development.	Practices Implementation and Monitoring
Biological Resources	Continuing Best Practice	BIO-11	Trees and other vegetation require routine maintenance. As trees age and become senescent, UC Berkeley will continue to undertake trimming, thinning, or removal, particularly if trees become a safety hazard. Vegetation in the Hill Campus East requires continuing management for fire safety, emergency evacuation, habitat enhancement, and other objectives. This may include removal of mature trees such as native live oaks and non-native plantings of eucalyptus and pine. The Landscape Master Plan, Landscape Heritage Plan and their subsequent updates will provide guidance on potential species to replace trees that are removed, where appropriate.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Cultural Resources	Continuing Best Practice	CUL-1	UC Berkeley will follow the procedures of conduct following the discovery of human remains that have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (California Environmental Quality Act [CEQA]). According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the California Native American Heritage Commission (NAHC) within 24 hours, who will, in turn, notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the NAHC is unable to identify an MLD, the MLD fails to make a recommendation within 48 hours after being notified, or the landowner rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-1	UC Berkeley will continue to comply with the California Building Code and the University of California Seismic Safety Policy.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-2	Site-specific geotechnical studies will be conducted under the supervision of a California Registered Certified Engineering Geologist or licensed geotechnical engineer and UC Berkeley will incorporate recommendations for geotechnical hazard prevention and abatement into project design.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
Geology and Soils	Continuing Best Practice	GEO-3	The UC Berkeley Seismic Review Committee will continue to review all seismic and structural engineering design for new and renovated existing buildings on campus.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-4	UC Berkeley will continue to use site-specific seismic ground motions for analysis and design of campus projects. Site-specific ground motions provide more current geo-seismic data than the U.S. Geological Survey (USGS) and are used for performance-based analyses.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-5	UC Berkeley will continue to comply with the UC Seismic Safety Policy. Through this program, UC Berkeley will continue to identify buildings in need of upgrades and include seismic improvements as part of its Capital Financial Plan.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-6	UC Berkeley will continue to implement programs and projects in emergency planning, training, response, and recovery. Each campus Building Coordinator will prepare, and update as needed, building response plans and coordinate education and planning for all building occupants.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-7	As stipulated in the UC Seismic Safety Policy, the design parameters for specific site peak acceleration and structural reinforcement will be determined by the geotechnical and structural engineer for each new or rehabilitation project proposed under the LRDP. The acceptable level of actual damage that could be sustained by specific structures will be calculated based on geotechnical information obtained at the specific building site.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-8	Site-specific geotechnical studies will include an assessment of landslide hazard, including seismic vibration and other factors contributing to slope stability.	2021 LRDP EIR Table 7-1, Continuing Best Practices

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
				Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-9	Campus construction projects must comply with the Campus Design Standards, which contain regulatory and other campus requirements for construction-phase and post-construction stormwater management.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Geology and Soils	Continuing Best Practice	GEO-10	In the event that a unique paleontological resource is identified during project planning or construction, the work will stop immediately in the area of effect, and the find will be protected until its significance can be determined by a qualified paleontologist. If the resource is determined to be a "unique resource," a mitigation plan will be formulated pursuant to guidelines developed by the Society of Vertebrate Paleontology and implemented to appropriately protect the significance of the resource by preservation, documentation, and/or removal, prior to recommencing activities in the area of effect. The plan will be prepared by the qualified paleontologist and submitted to the UC Berkeley project manager for review and approval prior to initiation or recommencement of construction activities in the area of effect.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hazards and Hazardous Materials	Continuing Best Practice	HAZ-1	UC Berkeley will continue to implement the same (or equivalent) health and safety plans, programs, practices, and procedures related to the use, storage, disposal, or transportation of hazardous materials and wastes (including chemical, radioactive, and biohazardous materials and waste) during the LRDP planning horizon. These include, but are not limited to: • Requirements for safe transportation of hazardous materials • UC Berkeley Office of Environment, Health & Safety training programs and oversight • The Hazard Communication Program • Publication and promulgation of the Water Protection Policy, the drain disposal guidelines, the Wastewater Toxics Management Plan, and the Slug Control Plan • Requirements that laboratories have Chemical Hygiene Plans and a chemical inventory database • The Aboveground Storage Tank Spill Prevention Control and Countermeasure Plan and monitoring of underground storage tanks • Implementation of the hazardous waste disposal program and policies • The Green Labs Program • The Biosafety Program • The Medical Waste Management Program • The Laser Safety Program • The Radiation Safety Program • The Drain Disposal Restrictions	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
			These programs may be subject to modification as regulations or UC Berkeley policies are developed or if the programs become obsolete through replacement by other programs that incorporate similar or more effective health and safety protection measures. However, any modifications must incorporate similar or more effective health and safety protection measures.	
Hazards and Hazardous Materials	Continuing Best Practice	HAZ-4	UC Berkeley will continue to perform hazardous materials surveys prior to capital projects in existing UC Berkeley buildings. UC Berkeley will continue to comply with federal, State, and local regulations governing the abatement and handling of hazardous building materials and each project will address this requirement in all construction.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hazards and Hazardous Materials	Continuing Best Practice	HAZ-5	UC Berkeley will continue to perform site histories and due diligence assessments of all sites where ground-disturbing construction is proposed, to assess the potential for soil and groundwater contamination resulting from past or current site land uses at the site or in the vicinity. The investigation will include review of regulatory records, historical maps and other historical documents, and inspection of current site conditions. UC Berkeley will act to protect the health and safety of workers or others potentially exposed should hazardous site conditions be found.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-1	During the plan check review process and construction phase monitoring, UC Berkeley Office of Environment, Health & Safety will review each development project to determine whether project runoff would increase pollutant loading and verify that the proposed project complies with all applicable requirements (e.g., Regional Water Quality Control Board and Campus Design Standards requirements) and best management practices (e.g., those described in the California Stormwater Quality Association's Construction BMP Handbook).	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-2	UC Berkeley will continue implementing an urban runoff management program containing best management practices, as published in the Strawberry Creek Management Plan, and as developed through the Stormwater Permit Annual Reports completed for the Phase II municipal separate storm sewer system (MS4) permit. UC Berkeley will continue to comply with the MS4 stormwater permitting requirements by implementing construction and post-construction control measures and best management practices required by project-specific Stormwater Pollution Prevention Plans (SWPPPs) and by the Phase II MS4 permit to control pollution. SWPPPs will be prepared by the project contractor as required to prevent discharge of pollutants and to minimize sedimentation resulting from construction and the transport of soils by construction vehicles.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-3	UC Berkeley will maintain a campuswide educational program regarding safe use and disposal of facilities maintenance chemicals and laboratory chemicals to prevent the discharge of these pollutants to Strawberry Creek and campus storm drains.	2021 LRDP EIR Table 7-1, Continuing Best Practices

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
				Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-4	Where feasible, parking will be built in covered parking structures and not exposed to rain to address potential stormwater runoff pollutant loads.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-5	Landscaped areas of development sites will be designed to absorb runoff from rooftops and walkways. Open or porous paving systems will be included in project designs, where feasible, to minimize impervious surfaces and absorb runoff.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-7	UC Berkeley will continue to review each development project, to determine whether rainwater infiltration to groundwater is affected. If it is determined that existing infiltration rates would be adversely affected, UC Berkeley will design and implement the necessary improvements to retain and infiltrate stormwater. Such improvements could include retention basins to collect and retain runoff, grassy swales, infiltration galleries, planter boxes, permeable pavement, or other retention methods. The goal of the improvement should be to ensure that there is no net decrease in the amount of water recharged to groundwater that serves as freshwater replenishment to Strawberry Creek. The improvement should maintain the volume of flows and times of concentration from any given site at pre-development conditions.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-8	Dewatering, when needed, will be monitored and maintained by qualified engineers in compliance with the Campus Design Standards and applicable regulations.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-9	The campus storm drain system will be maintained and cleaned to accommodate existing runoff.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
Hydrology and Water Quality	Continuing Best Practice	HYD-11	Development that encroaches on creek channels and riparian zones will be prohibited. An undisturbed buffer zone will be maintained between proposed capital projects and creek channels.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Hydrology and Water Quality	Continuing Best Practice	HYD-13	UC Berkeley will continue to manage runoff into storm drain systems such that the aggregate effect of projects implemented pursuant to the LRDP creates no net increase in runoff over existing conditions.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Land Use and Planning	Continuing Best Practice	LU-1	New projects in the Campus Park will, as a general rule, conform to the Physical Design Framework. The Physical Design Framework includes specific provisions to ensure projects at the city interface consider the transition from campus to city.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Noise	Continuing Best Practice	NOI-1	Mechanical equipment selection and building design shielding will be used, as appropriate, so that noise levels from future building operations would not exceed the City of Berkeley Noise Ordinance limits for commercial areas or residential zones as measured on any commercial or residential property in the area surrounding a project proposed to implement the LRDP. Controls typically incorporated to attain this outcome include selection of quiet equipment, sound attenuators on fans, sound attenuator packages for cooling towers and emergency generators, acoustical screen walls, and equipment enclosures.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Noise	Continuing Best Practice	NOI-2	UC Berkeley will require the following measures for all construction projects: • Construction activities will be limited to a schedule that minimizes disruption to uses surrounding the project site as much as possible. Construction outside the Campus Park will be scheduled within the allowable construction hours designated in the noise ordinance of the local jurisdiction to the full feasible extent, and exceptions will be avoided except where necessary. As feasible, construction equipment will be required to be muffled or controlled. • The intensity of potential noise sources will be reduced where feasible by selection of quieter equipment (e.g., gas or electric equipment instead of diesel powered, low noise air compressors). • Functions such as concrete mixing and equipment repair will be performed off-site whenever possible. • Stationary equipment such as generators and air compressors will be located as far as feasible from nearby noise-sensitive uses. • At least 10 days prior to the start of construction activities, a sign will be posted at the entrance(s) to the job site,	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
			clearly visible to the public, that includes contact information for UC Berkeley's authorized representative in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, they will investigate, take appropriate corrective action, and report the action to UC Berkeley. • During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only. The construction manager will use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws. For projects requiring pile driving: • With approval of the project structural engineer, pile holes will be pre-drilled to minimize the number of impacts necessary to seat the pile. • Pile driving will be scheduled to have the least impact on nearby sensitive receptors. • Pile drivers with the best available noise control technology will be used. For example, pile driving noise control may be achieved by shrouding the pile hammer point of impact, by placing resilient padding directly on top of the pile cap, and/or by reducing exhaust noise with a sound-absorbing muffler. • Alternatives to impact hammers, such as oscillating or rotating pile installation systems, will be used where feasible.	
Transportation	Continuing Best Practice	TRAN-1	UC Berkeley will implement bicycle, pedestrian, and transit access and circulation improvements as part of new building projects, major renovations, and landscape projects. Improvements will address the goal of increasing non-vehicular commuting and safety; improving access from adjacent campus or city streets and public transit; reducing multi-modal conflict; providing bicycle parking; and providing commuter amenities.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Transportation	Continuing Best Practice	TRAN-4	UC Berkeley will continue to work with the City of Berkeley, AC Transit, and BART to coordinate transit access to new academic buildings, parking facilities, and campus housing projects, in order to accommodate changing locations or added demand.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Transportation	Continuing Best Practice	TRAN-5	UC Berkeley will require contractors working on major new construction or major renovation projects to develop and implement a Construction Traffic Management Plan that reduces construction-period impacts on circulation and parking within the vicinity of the project site. The Construction Traffic Management Plan will address job-site access, vehicle circulation, bicycle and pedestrian safety, and be coordinated with the City of Berkeley Public Works Department when projects require temporary modifications to city streets.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
Transportation	Continuing Best Practice	TRAN-6	For each construction project, UC Berkeley will require the prime contractor to prepare a Construction Traffic Management Plan which will include the following elements: • Proposed truck routes to be used, consistent with the City truck route map. • Construction hours, including limits on the number of truck trips during the morning (AM) and evening (PM) peak traffic periods (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.), if conditions demonstrate the need. • Proposed employee parking plan (number of spaces and planned locations). • Proposed construction equipment and materials staging areas, demonstrating minimal conflicts with circulation patterns. • Expected traffic detours needed, planned duration of each, and traffic control plans for each. • Identifying bicycle and pedestrian detours and safety plan, including solutions to address impacts to accessible routes.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Transportation	Continuing Best Practice	TRAN-7	UC Berkeley will manage project schedules to minimize the overlap of excavation or other heavy truck activity periods that have the potential to combine impacts on traffic loads and street system capacity, to the extent feasible.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Transportation	Continuing Best Practice	TRAN-8	UC Berkeley will reimburse the City of Berkeley for its fair share of costs associated with damage to City streets from UC Berkeley construction activities, provided that the City adopts a policy for such reimbursements applicable to all development projects within Berkeley.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Utilities and Service Systems	Continuing Best Practice	USS-1	For development that increases water demand, UC Berkeley will continue to evaluate the size of existing distribution lines as well as pressure of the specific feed affected by development on a project-by-project basis, and necessary improvements will be incorporated into the scope of work for each project to maintain current service and performance levels. The design of the water distribution system, including fire flow, for new buildings will be coordinated among UC Berkeley, the East Bay Municipal Utility District, and the City of Berkeley Public Works Department and Fire Department.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Utilities and Service Systems	Continuing Best Practice	USS-3	UC Berkeley will continue to incorporate specific water conservation measures into project design to reduce water consumption and wastewater generation. This could include the use of special air-flow aerators, water-saving shower heads, flush cycle reducers, low-volume toilets, weather-based or evapotranspiration irrigation controllers, drip irrigation systems, and the use of drought resistant plantings in landscaped areas, and collaboration with the East Bay Municipal Utility District to explore suitable uses of recycled water.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring

Topic	Type of Measure	Mitigation/ CBP #	Mitigation/Continuing Best Practice Text	Source Document
Utilities and Service Systems	Continuing Best Practice	USS-4	UC Berkeley will analyze water and sewer systems on a project-by-project basis to determine specific capacity considerations for both UC Berkeley systems and off-site municipal systems in the planning of any project proposed under the LRDP.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Utilities and Service Systems	Continuing Best Practice	USS-6	UC Berkeley will continue to implement the Zero Waste requirements of the UC Sustainability Policy designed to reduce the total quantity of campus solid waste that is disposed of in landfills.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Utilities and Service Systems	Continuing Best Practice	USS-7	In accordance with the CalGreen Code, and as required for Leadership in Energy and Environmental Design certification, contractors working for UC Berkeley will be required under their contracts to report their solid waste diversion according to UC Berkeley's waste management reporting requirements.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Wildfire	Continuing Best Practice	WF-3	UC Berkeley will continue to plan and implement programs to reduce risk of wildland fires, including plan review and construction inspection programs that ensure that its projects incorporate fire prevention measures.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring
Wildfire	Continuing Best Practice	WF-4	UC Berkeley will continue to plan and collaborate with other agencies through participation in the Hills Emergency Forum.	2021 LRDP EIR Table 7-1, Continuing Best Practices Implementation and Monitoring

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