Draft Supplement to
Final Environmental Impact Report
State Clearinghouse #2007061092

Campus Master Plan Update
California State University, Long Beach

Housing Expansion Phase 1 – Housing Administration and Commons Building Project

California State University, Long Beach
1331 Palo Verde Avenue
Long Beach, California 90815

May 2020

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EXECUTIVE SUMMARY

This Supplemental Environmental Impact Report (EIR) has been prepared by the California State University, Long Beach (CSULB) to analyze the potential environmental impacts associated with the implementation of the Housing Expansion Phase 1 – Housing Administration and Commons Building Project (proposed project). This Supplemental EIR has been prepared in conformance with the California Environmental Quality Act of 1970 (CEQA) statutes (California Public Resources Code Section 2100 et. seq., as amended) and its implementing guidelines (California Code of Regulations, Title 14, Section 15000 et. seq., 2018). The California State University (CSU) is identified as the lead agency for the proposed project under CEQA. The approving governing body is the CSU Board of Trustees.

The existing Hillside Office/Commons building within the Hillside College residence hall complex was proposed for demolition and replacement in the Campus Master Plan and Campus Master Plan Update EIR (State Clearinghouse #2007061092), certified by the CSU Board of Trustees in May 2008 (2008 EIR). CSULB now proposes to implement this project with minor modifications compared to its original description in the 2008 Campus Master Plan.

Lead Agency

The California State University
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401 Golden Shore
Long Beach, California 90802-4210

Applicant

California State University, Long Beach
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Contact: Martin Grant, Program Manager, Capital Construction

ES.1 PROJECT LOCATION AND SETTING

The project site is centrally located within the campus's Hillside College residence hall complex, on the CSULB campus in the City of Long Beach, California. The project site is bound by Beach Drive to the south, Earl Warren Drive to the west, the Bouton Creek channel to the north, and Merriam Way to the east. The project site includes the existing Hillside Office/Commons building, which fronts Earl Warren Drive, and is generally bound by a surface parking lot (Lot G2) to the west, Hillside residence halls to the north and south, and the Hillside Dining Hall to the east. The existing one-story building was constructed in 1969 in a Mid-Century Modern style, which is characterized by wood or steel framing, rectilinear building forms, open interior planning, flat or low-pitched roofs, and integration of building and landscape. The building is irregularly shaped with a brick exterior and features a flat roof which extends into a covered walkway that connects the building to the dining hall to the east. The existing Hillside Office/Commons building serves as a Central Customer Services Office and common space for Hillside College residents. The Hillside Office/Commons building also has two single apartments for Housing and Residential Life (HRL) staff.

ES.2 PROJECT DESCRIPTION

The proposed project would demolish the existing 5,700-square-foot (SF) Hillside Office/ Commons building and construct two new buildings in its place: a two-story, 8,000-SF commons building and a single-story, 4,500-SF HRL office building. The two buildings would flank a canopy-covered central courtyard that would serve both, and the main entrances to the two buildings would face each other. Five one- and two-bedroom apartments and an outdoor terrace would be provided on the second floor of the proposed commons building to replace two one-bedroom apartments that would be lost to demolition of the existing Hillside Office/Commons building. A total of approximately 400 solar photovoltaic (PV) panels would be installed on the roofs of the two buildings and the central courtyard canopy. Existing building-serving utilities, including storm drain, electrical, and water and wastewater, would be removed and replaced to appropriately serve the new buildings. Up to 55 landscape trees would be removed within the project area to allow for construction. New landscaping would also be installed as part of the project. The proposed buildings would incorporate energy efficient, sustainable, water and waste efficient, and resilient features to achieve U.S. Green Building Council's Leadership in Energy and Environmental Design Platinum Rating, Net Zero Energy (NZE) Rating, and Full Living Building Challenge Certification.

Concrete in pathways surrounding the existing Hillside Office/Commons building would be removed and replaced to appropriately serve the proposed buildings. The median on Earl Warren Drive in front of the existing Hillside Office/Commons building would be removed to accommodate the proposed buildings which extend farther west than the existing building. Additionally, the existing northern and southern medians would be shortened for the section of road along the project site where the curb is shifted.

Following construction, the proposed project would generally serve the same function as the existing Hillside Office/Commons building currently does, providing office space and a location for students to study and lounge. Changes to parking would not occur and the proposed project is not expected to generate additional vehicle trips during operation since the buildings would serve existing students.

ES.3 ALTERNATIVES

The Supplemental EIR considered four alternatives to the proposed project: (1) No Project Alternative; (2) Renovation of Existing Building Alternative; (3) New Building at Corner Site Alternative; and (4) New Building at Beach Drive Site with Renovation of Existing Building. All four alternatives would avoid the significant and unavoidable impact to the historical resource associated with the proposed project, as they would not include demolition of the existing Hillside Office/Commons building. The No Project Alternative would result in reduced construction impacts overall when compared to the proposed project, as no development would occur. The three build alternatives would result in comparable impacts to cultural (archaeological) resources and tribal cultural resources during construction activities and operation. Both the New Building at Corner Site Alternative and the New Building at Beach Drive Site with Renovation of Existing Building Alternative would require the construction activities at multiple sites and would necessitate the construction of additional parking facilities, resulting in increased construction impacts when compared to the proposed project. Additionally, since the existing Hillside Office/Commons building does not meet NZE building requirements, all four alternatives would result in increased impacts related to operational energy usage and greenhouse gas emissions. Although the long term impacts related to operational energy and greenhouse gas emissions under the Renovation of Existing Building Alternative would be greater than the proposed project,

this alternative would avoid the significant and unavoidable impact associated with the proposed project and would result in the fewest new impacts among the three build alternatives. Therefore, the Renovation of Existing Building Alternative would be considered the environmentally superior alternative. However, the Renovation of Existing Building Alternative would only partially meet three of the project's objectives, and does not meet five of the eight objectives of the proposed project.

ES.4 SUMMARY OF IMPACTS AND MITIGATION MEASURES

An analysis of the environmental impacts caused by the proposed project has been conducted and is contained in this Supplemental EIR. Four issue areas are analyzed in detail and presented in Chapter 3 of this EIR. Table ES-1 provides a summary of the potentially significant environmental impacts that would result during construction and operation of the proposed project, mitigation measures that would lessen potential environmental impacts, and the level of significance of the environmental impacts that would remain after implementation of the proposed mitigation, if necessary. The Supplemental EIR identifies potentially significant impacts requiring mitigation for cultural resources (Section 3.1) and tribal cultural resources (Section 3.4). The required programmatic mitigation measures from the 2008 EIR, Mitigation Measures CR-1 through CR-5, are derived from the 2008 EIR and applicable to the proposed project. Additional project-specific mitigation measures have been identified to reduce impacts to tribal cultural resources to a less than significant level. Impacts related to cultural resources (historic resources) would be significant and unavoidable. Demolition of the existing Hillside Office/Commons building would result in a substantial change to the historical resource that could not be reduced. Therefore, construction of the proposed project would result in a significant and unavoidable cultural resources impact to the historical resource. The Supplemental EIR identified less than significant impacts for energy (Section 3.2) and greenhouse gas emissions (Section 3.3).

A Mitigation Monitoring and Reporting Program will be prepared as a separate document that will be available for public review at CSULB prior to the CSU Board of Trustees' decision on the project.

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Significance Determination	Mitigation Measure	Significance After Mitigation
CULTURAL RESOURCES			
CR-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	Potentially Significant	**CR-6:** Prior to project commencement and the demolition of any buildings or site features within the eligible historic district, CSULB shall ensure that documentation of the property is completed in the form of a documentation that shall comply with the *Secretary of the Interior's Standards for Architectural and Engineering Documentation* (NPS 1990). The documentation shall generally follow the HABS Level III requirements and include digital photographic recordation of the Hillside College Residence Hall Complex, a detailed historic narrative report, and compilation of historic research. As part of this process, the as-built plans and associated documents that remain on the property shall be scanned digitally and incorporated into the final documentation package. Photographic documentation shall include: • General views of the site and landscape as a whole • Photographs of each exterior elevation of all eight buildings in the complex • Photographs of the interior of the building to be demolished (existing Hillside Office/Commons) The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History (NPS 1983). The original archival-quality documentation shall be offered as donated material to the following entities: Library of Congress, South Central Coastal Information Center at CSU Fullerton, CSULB Special Collections and University Archives, University of California, Santa	Significant and Unavoidable

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Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Significance Determination	Mitigation Measure	Significance After Mitigation
		Barbara Special Collections, Long Beach Heritage, and the Los Angeles Conservancy. Completion of this mitigation measure shall be monitored and enforced by the lead agency. **CR-7:** CSULB shall prepare and implement interpretive program for the Hillside College Historic District. The interpretive program shall focus on the historic district's architectural and developmental legacy, and shall feature interpretative/commemorative materials: • On-site display of historic photographs, historic architectural plans and drawings, historic narrative, and other interpretive materials as available and deemed appropriate. These materials will be installed in a publicly-accessible space in the new HRL office or commons building. • Online display of historic photographs, historic architectural plans and drawings, historic narrative, and other interpretive materials as available and deemed appropriate. These materials will be publicly accessible on the CSULB website, on an existing page dedicated to the history of the University. • Incorporation of commemorative materials and historical information into regular on-campus orientation and tours for educational purposes. Completion of this mitigation measure shall be overseen by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History (NPS 1983), and monitored and enforcement by the lead agency.	
CR-2: Would the project cause a	Potentially Significant	**CR-1:** All earth moving construction activity will be	Less than Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Significance Determination	Mitigation Measure	Significance After Mitigation
substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?		monitored by a professional archaeologist and Native American monitor. The archaeological monitor will conduct on-site cultural resources sensitivity training (crew education) as outlined below. If subsurface cultural materials are uncovered, construction work in the immediate vicinity will be halted and the emergency discovery procedures described below will be implemented. **CR-2:** Prior to the beginning of the earth moving construction activities (including initial grading of vegetation removal), the construction crew shall be informed of the cultural resources values involved and of the regulatory protections afforded those resources. The crew shall also be informed of procedures relating to the discovery of unanticipated cultural resources (as outlined below). The crew shall be cautioned not to collect artifacts, and asked to inform a construction supervisor and the onsite archaeological monitor in the event that cultural remains are discovered during the course of construction. The onsite archaeological and Native American monitor shall administer supplement briefing to all new construction personnel, prior to their commencement of earth moving construction activities. **CR-3:** In the event an archaeological resource is unearthed during excavation activities associated with the project, work shall be stopped immediately and the discovery shall be evaluated by a qualified archaeologist, pursuant to the procedures set forth at CEQA Guidelines Section 15064.5. **CR-4**: In an event that a previously unknown archaeological resource is discovered and disturbance to such a resource cannot be avoided, a Phase-III, or	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Significance Determination	Mitigation Measure	Significance After Mitigation
		"data recovery," phase of investigation will be required, pursuant to CEQA Guidelines Section 15064.5. The Phase-III study will generally consist of a limited scale program of archaeological excavation, radiocarbon dating of organic materials -such as shell midden and faunal remains, laboratory analysis, and report writing designed to assess the importance of the resource in question. Any resources recovered will be properly curated, as appropriate. The Phase III or data recovery plan shall be prepared in consultation with SHPO. **CR-5:** If human skeletal remains are found at the project site during earth moving activities such as grading or trenching, work shall be suspended and the Los Angeles County Coroner's Office shall be notified. Standard guidelines set by California law provides for the treatment of skeletal material of Native American origin (California Public Resources Code, Sections 5097.98 et seq.; Health and Safety Code, Section 7050.5 and others). Procedures to be employed in the treatment of human remains are found in, "A Professional Guide for the Preservation and Protection of Native American Remains and Associated Grave Goods," published by the California Native American Heritage Commission. **CR-8:** A project-specific cultural resources monitoring and discovery plan (CRMDP) shall be prepared, which shall specify monitoring methods, personnel, and procedures to be followed in the event of a discovery. The monitoring plan shall identify what activities require monitoring, describe monitoring procedures, and outline the protocol to be followed in the event of a find. Criteria shall be outlined, and triggers identified when further consultation is required for the treatment of a find. Key staff shall be identified, and the process of notification	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Significance Determination	Mitigation Measure	Significance After Mitigation
		and consultation shall be specified within the CRMDP. A curation plan shall also be outlined within the CRMDP. All work shall be conducted under the direction of a qualified archaeological Principal Investigator who meets the Secretary of the Interior's standards for archaeology. **CR-9:** Archaeological monitoring shall be conducted by a qualified archaeological monitor who is working under the guidance of an archaeologist who meets the SOI Professional Qualification Standards for Archaeology (48 Federal Register 44738). Native American monitoring shall be conducted by a qualified Native American monitor representing the tribe or tribes traditionally and culturally affiliated with the geographic area of the proposed project. It is recommended that the tribal cultural monitor maintain logs of all activities monitored, and that this documentation be made available to all consulting Native American parties. Ground-disturbing activities include, but are not limited to, geotechnical boring, boring, trenching, grading, excavating, and the demolition of building foundations. The archaeological monitor shall observe ground-disturbing activities in all areas with potential to contain significant cultural deposits. If discoveries are made during ground disturbing activities, additional work may be required in accordance with the terms specified in CRMDP. **CR-10:** After demolition of the existing facilities and prior to construction of the proposed facilities, a limited geoarchaeological trenching program shall be prepared and implemented in order to verify the stratigraphy conclusions of the Extended Phase I study (that the project area is situated on an uplifted Pleistocene marine	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Significance Determination	Mitigation Measure	Significance After Mitigation
		landform with substantial soil development at the surface; this landform is capped with imported fill and disturbed/redeposited native sediments of variable depths, but generally between 30 and 100 cm deep; this disturbed fill includes shell and a small quantity of out-of-context historic and prehistoric artifacts). If intact archaeological deposits are encountered during the geoarchaeological testing, additional work may be required in accordance with the terms specified in the CRMDP.	
CR-3: Would the project disturb any human remains, including those interred outside of formal cemeteries?	Potentially Significant	**CR-5**	Less than Significant
ENERGY			
ENERGY-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than Significant	No mitigation measures are required.	Less than Significant
ENERGY-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than Significant	No mitigation measures are required.	Less than Significant
Greenhouse Gas Emissions			
GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	No mitigation measures are required.	Less than Significant
GHG-2: Would the project conflict	No Impact	No mitigation measures are required.	No Impact

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Significance Determination	Mitigation Measure	Significance After Mitigation
with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			
TRIBAL CULTURAL RESOURCES			
TCR-1: 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 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)	Less than Significant	No mitigation measures are required.	Less than Significant
TCR-2: 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	Potentially Significant	**CR-1, CR-2, CR-3, CR-4, CR 5, CR-8, and CR-9** **TCR-1**: In order to identify and treat tribal cultural resources inadvertently uncovered during the course of construction-related excavations, a project-specific CRMDP shall be developed. The monitoring plan will identify what activities require archaeological and Native American monitoring, describe monitoring procedures, and outline the protocol to be followed in the event of a find. Criteria thresholds will be outlined, and triggers identified for when further consultation is required for the	Less than Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impact	Significance Determination	Mitigation Measure	Significance After Mitigation
Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		treatment of a find. Key staff and tribal contacts will be identified, and the process of notification and consultation will be specified within the CRMDP. A plan for the final disposition of artifacts will also be outlined within the CRMDP.	

1. INTRODUCTION

This Supplemental Environmental Impact Report (EIR) analyzes the potential environmental impacts associated with the implementation of the Housing Expansion Phase 1 – Housing Administration and Commons Building Project (proposed project) on the California State University, Long Beach (CSULB) campus. The existing Hillside Office/Commons building within the Hillside College residence hall complex was proposed for demolition and replacement in the Campus Master Plan and Campus Master Plan Update EIR (State Clearinghouse #2007061092), certified by the CSU Board of Trustees in May 2008 (2008 EIR). CSULB now proposes to implement this project with minor modifications compared to its original description in the 2008 Campus Master Plan, necessitating the preparation of additional environmental analysis and documentation in conformance with the California Environmental Quality Act (CEQA) Guidelines. The project's background and the legal basis for preparing a Supplemental EIR are described below.

1.1 BACKGROUND

Established in 1949, CSULB is the largest campus in the CSU system. With 63 academic programs, CSULB enrolls approximately 33,034 full-time equivalent students or FTES (38,776 head count)[1] as of Fall 2019. In 2017, CSULB received the most applications for admission of any campus in the CSU system, and enrollment of CSULB is expected to grow in the coming years. To accommodate the growth in student enrollment, the 2008 Campus Master Plan provided a framework for land use, open space, development, and circulation for the campus. The intent of the 2008 Campus Master Plan was to provide new infill development to accommodate for the projected growth by replacing existing aged, obsolete, and inefficient facilities. The proposed improvements include up to approximately 1.2 million square feet in new or replacement facilities. Since the adoption of the 2008 Campus Master Plan, many of the proposed facilities have already been renovated or constructed.

The 2008 EIR was prepared as a Program EIR and analyzed the impacts associated with implementation of the 2008 Campus Master Plan. According to Section 15168(a) of the CEQA Guidelines, a Program EIR may be prepared for a series of actions that can be characterized as one large project. According to Section 15168(b) of the CEQA Guidelines, the advantages of a Program EIR are that it can: (1) provide for a more exhaustive consideration of effects and alternatives than would be practical in a CEQA document on an individual action; (2) ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis; (3) avoid duplicative reconsideration of basic policy considerations; (4) allow the lead agency to consider alternative and programmatic mitigation measures early in the planning process; and (5) allow for reduction in paperwork. Furthermore, Section 15168(d)(3) of the CEQA Guidelines states that a Program EIR can be used to simplify the task of preparing environmental documents on later activities in the program and focus an EIR on a later activity to permit discussion solely of new environmental effects which had not been considered before.

The 2008 EIR analyzed environmental impacts associated with the maximum growth that could occur on the campus with implementation of the 2008 Campus Master Plan. Specifically, the 2008

[1] A full-time undergraduate student within the CSU system is expected to enroll in 15 units each term. One FTES is defined as one student taking 15 course units, and therefore one student for purposes of headcount. Two part-time students, each taking 7.5 course units, also would be considered one FTES, but two headcount students. Therefore, the total student headcount enrollment is higher than the FTES enrollment. As average course loads vary, so does the relationship between FTES and headcount.

EIR analyzed impacts associated with the provision of additional student housing and associated student support facilities, including replacing the existing Hillside Office/Commons building, as described in the following paragraph. Environmental impacts were evaluated in the 2008 EIR to the extent possible and at an appropriate level of detail given the level of project information available in the 2008 Campus Master Plan. Additionally, appropriate programmatic mitigation measures were developed to reduce the impacts of 2008 Campus Master Plan implementation to a less than significant level, where feasible.

The 2008 Campus Master Plan evaluated seven projects in greater detail for anticipated near-term development, including the campus's Hillside College residence hall complex (referred to in the 2008 EIR as the Residential Commons Housing complex). The 2008 Campus Master Plan proposed demolition of the existing Hillside Office/Commons building within the Hillside College complex as part of Phase 1 of the provision of new student housing and support facilities. In its place, the 2008 Campus Master Plan proposed the construction of a new dining hall in a building that would also include a coffee house, convenience store, and new, expanded commons area that would include an activity room, a housing office for the Hillside College, arts and crafts room, two residence coordinator apartments, and 35 flex residential units (approved project). Since the adoption of the 2008 Campus Master Plan, a dining hall, convenience store, and coffee house have been expanded or built in other parts of the campus as part of separate projects, and the Hillside College complex no longer needs to accommodate those uses as was envisioned in the 2008 EIR.

1.2 PROPOSED CHANGES TO THE PROJECT

Similar to the approved project, the proposed project involves demolition of the existing Hillside Office/Commons building in the Hillside College residence hall complex and construction of a new Housing and Residential Life (HRL) office building. The proposed project would include similar uses to the approved project, including a housing office, activity room, and residence coordinator apartments. However, the proposed project would no longer include a dining hall, convenience store, and coffee house since, as previously noted, those uses have already been constructed in other parts of the CSULB campus. The proposed project would be used for housing administration serving the CSULB campus and commons space for the student residents of the Hillside College residence hall complex. The proposed project would include modifications to Earl Warren Drive, which were not originally contemplated for the approved project. Additionally, the proposed project would incorporate sustainable design features that would be consistent with CSU sustainability policies adopted after the 2008 EIR was prepared. All applicable mitigation measures from the 2008 EIR would also be applicable to the proposed project and, therefore, are incorporated by reference into this Supplemental EIR.

1.3 CEQA UPDATES SINCE CERTIFICATION OF THE 2008 EIR

The 2008 EIR was prepared pursuant to the current State CEQA Guidelines, Article 7, Sections 15086-15087, and the California Public Resources Code Section 21153. Since 2008, Appendix G, the Environmental Checklist Form, was updated to address the analysis and mitigation of greenhouse gas emissions (March 18, 2010) and include questions related to impacts to tribal cultural resources (September 27, 2016). On December 28, 2018, a comprehensive update to the State CEQA Guidelines became effective, which addressed legislative changes to the CEQA statute, clarified certain portions of the existing CEQA Guidelines, and updated the CEQA Guidelines to be consistent with recent court decisions, including but not limited to the incorporation of energy as new topic addressed by the CEQA

Guidelines. As such, the thresholds and analyses contained in this Supplemental EIR reflect the latest CEQA Guidelines.

1.4 PURPOSE, SCOPE, AND LEGAL AUTHORITY

The Lead Agency has determined that project modifications or changed circumstances have occurred and/or new information has become available following the previous discretionary approval, and these changes trigger the need for additional environmental review. Pursuant to the State CEQA Guidelines, a Lead Agency must prepare a Subsequent EIR for a previously-certified EIR when any of the following criteria set forth in CEQA Guidelines Section 15162(a)(1-3) would occur:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known or could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:

    a. The project will have one or more significant effects not discussed in the previous EIR;

    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the proposed proponents decline to adopt the mitigation measure or alternative.

As the result of a historic resources assessment, the Hillside College Residence Hall Complex (excluding Los Cerritos Hall, Los Alamitos Hall, and the International House) was found potentially eligible for inclusion in the National Register of Historic Places and California Register of Historical Resources (ARG 2020). As such, Section 15162(a)(3)(A) of the State CEQA Guidelines applies to the proposed project because it “will have one or more significant effects not discussed in the previous EIR […]”.

However, as stated in Section 15163 of the State CEQA Guidelines, a Lead Agency may choose to prepare a Supplemental EIR when conditions that require preparation of a Subsequent EIR are met and “only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation” (Section 15163(a)(1-2)). As the proposed

project requires only minor modifications to the 2008 Campus Master Plan and 2008 EIR, as described in Section 1.2, the Lead Agency determined that a Supplemental EIR is the appropriate documentation for the proposed project.

The purpose of a Supplemental EIR is to provide the additional information necessary to make the previously certified EIR adequate for the project as modified. Accordingly, pursuant to Section 15163 of the CEQA Guidelines, the Supplemental EIR need contain only the information necessary to analyze the project modifications, changed circumstances, or new information that triggered the need for additional environmental review. Information and analysis from the 2008 EIR that is relevant to the analysis of the project modifications is briefly summarized or described rather than repeated. This Supplemental EIR is intended to:

- Supplement the 2008 EIR and address project modifications, changed circumstances, or new information that was not known and could not have been known with the exercise of reasonable diligence at the time the prior document was certified, as required under CEQA Guidelines Section 15163;

- Address new or substantially more severe significant environmental effects related to proposed project modifications;

- Recommend mitigation measures to avoid or lessen impacts associated with any new or substantially more severe significant environmental effects; and

- Update the impact analysis and mitigation measures where conditions have changed since the certification of the 2008 EIR.

An analysis was conducted to compare the proposed project with the project analyzed in the 2008 EIR in order to assess the proposed project's consistency with the project analyzed in the 2008 EIR and determine which environmental topics warranted further analysis in this Supplemental EIR (see Table 4-1 in Chapter 4, Other CEQA Topics). This Supplemental EIR evaluates the following environmental resource areas, in which the proposed project was determined to have the potential for new or substantially more severe significant direct, indirect, and/or cumulative environmental effects:

- **Cultural Resources:** At the time the 2008 Campus Master Plan was prepared, the existing Hillside Office/Commons building did not meet the age threshold for a potential historical resource. The building, which is proposed to be demolished, is now 50 years old and was therefore evaluated in terms of potential historical significance. As discussed previously, the Hillside College residence hall complex (excluding Los Cerritos Hall, Los Alamitos Hall, and the International House) was found potentially eligible for inclusion in the National Register of Historic Places and California Register of Historical Resources, and therefore is considered a historical resource that requires evaluation pursuant to CEQA. In addition, potential impacts on known significant archaeological sites located in the vicinity of the proposed project are evaluated.

- **Energy**: At the time the 2008 Campus Master Plan was prepared, specific details related to energy use were not available and environmental impacts were evaluated in the 2008 EIR to the extent possible given the level of project information available at the time. The Master Plan's potential impacts related to energy were not previously analyzed in detail in the Program EIR. Therefore, this Supplemental EIR addresses the projected energy consumption related to construction and operation of the proposed project.

- **Greenhouse Gas Emissions:** The 2008 EIR did not address potential impacts to greenhouse gas emissions because it was prepared prior to the 2010 amendment to the State CEQA Guidelines pertaining to greenhouse gas emissions. Therefore, this Supplemental EIR addresses potential impacts related to greenhouse gas emissions.

- **Tribal Cultural Resources:** The 2008 EIR did not address potential impacts to tribal cultural resources because it was prepared prior to the 2016 amendment to the State CEQA Guidelines pertaining to tribal cultural resources. Therefore, this Supplemental EIR analysis addresses potential project-level and cumulative impacts on tribal cultural resources.

1.5 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The CEQA Guidelines defines the “lead” agency as the public agency which has the principal responsibility for carrying out or approving a project (Section 15367). The Lead Agency for the proposed project is the California State University, Long Beach. The approving governing body is the CSU Board of Trustees.

A “responsible agency” is a public agency which proposes to carry out or approve a project, for which a Lead agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, this includes all public agencies other than the Lead Agency which have discretionary approval over the project (Section 15381). No responsible agencies have been identified for the proposed project.

A “trustee agency” is a state agency with jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California (Section 15386). No trustee agencies have been identified for the proposed project.

2. PROJECT DESCRIPTION

2.1 PROJECT TITLE

California State University, Long Beach Housing Expansion Phase 1 – Housing Administration and Commons Building

2.2 LEAD AGENCY

The California State University
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Long Beach, California 90802-4210

APPLICANT

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Contact: Martin Grant, Program Manager, Capital Construction

2.3 PROJECT LOCATION

The project site is located on the California State University, Long Beach (CSULB) campus in the eastern portion of the City of Long Beach, California. The City of Long Beach is surrounded by cities of Paramount and Lakewood to the north; the cities of Hawaiian Gardens, Cypress, Los Alamitos, Rossmoor, and Seal Beach to the east; the Pacific Ocean to the south; and the cities of Los Angeles, Carson, and Compton to the west, as shown in Figure 2-1. The CSULB campus encompasses 322 acres and is bounded by East Atherton Street to the north, Palo Verde Avenue to the east, East 7th Street to the south, and Bellflower Boulevard to the west, as shown in Figure 2-2. Primary vehicular access to the campus is via Earl Warren Drive and Merriam Way from East Atherton Street, State University Drive from Palo Verde Avenue, West Campus Drive and East Campus Drive from East 7th Street, and Beach Drive from Bellflower Boulevard. Interstate 405 runs east-to-west north of the campus and provides regional access to the campus via access ramps at Palo Verde Avenue and Bellflower Boulevard. State Route 22 provides direct access to East 7th Street just southeast of the campus. Interstate 605 terminates at Interstate 405 and State Route 22 approximately one mile east of campus.

2.4 EXISTING PROJECT SITE CHARACTERISTICS

The project site is centrally located within the campus's Hillside College residence hall complex, as shown on Figure 2-3. The Hillside College complex is bound by the campus border with the Veterans Affairs (VA) to the south, Earl Warren Drive to the west, the campus's Parking lot G4 and the Bouton Creek channel to the north, and Merriam Way and Student Health Services to the east. Merriam Way provides vehicular access to the Hillside College surface parking lot from the east. Earl Warren Drive is a two-lane road that provides primary north-south vehicular access to the campus. The portion of Earl Warren Drive fronting the existing Hillside College complex is a fire lane and a stop for the campus Beachside Shuttle. No parking is allowed.

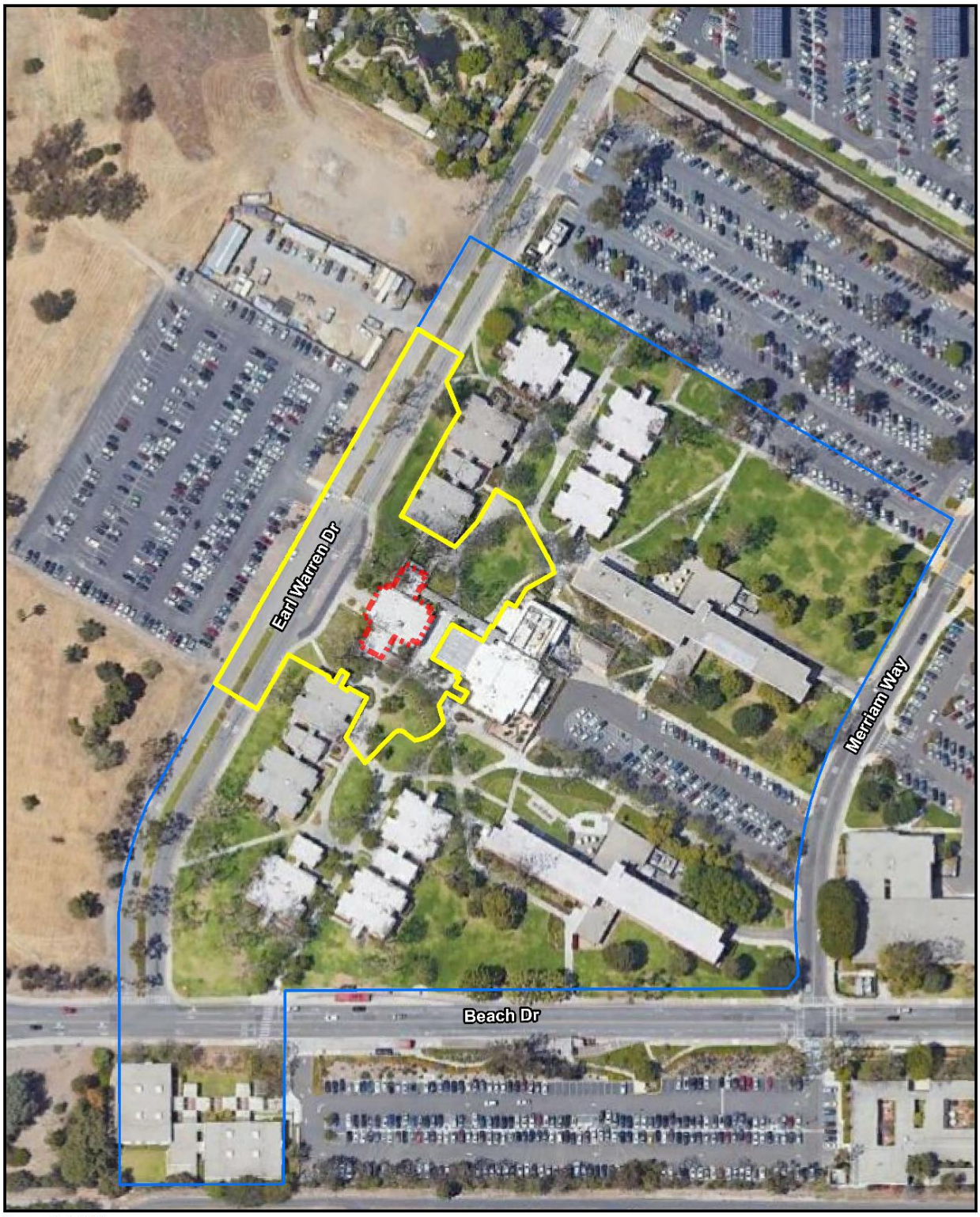
Source: Esri, 2019.

0 1,500 3,000 Feet

Project Boundary
CSULB Boundary

Figure 2-1
Regional Map

Figure 2-2
California State University, Long Beach Campus



Source: Esri, 2019.

0 100 200 Feet

Project Site
Existing Hillside Office/Commons Building
Hillside Residential College Boundary

Figure 2-3
Project Location Map

Construction of the Hillside College complex was completed in 1970. Spanning 21 acres, the complex currently contains seven two-story residence halls (Hillside Suites A, B, C, D, E, and F and International House Hall), two three-story residence halls (Los Alamitos and Los Cerritos), a one-story dining hall, an office, a surface parking lot, concrete-lined walkways, and landscaped, grass-covered open space. The topography of the site is relatively flat, with the southern area of the campus rising approximately 80 feet from north to south. Figures 2-4a through 2-4c show the existing site and adjacent ground within the Hillside College complex.

The project site includes the existing Hillside Office/Commons building, which fronts Earl Warren Drive, and is generally bound by a surface parking lot (Lot G2) to the west, Hillside residence halls to the north and south, and the Hillside Dining Hall to the east. The existing one-story building was constructed in 1969 in a Mid-Century Modern style, which is characterized by wood or steel framing, rectilinear building forms, open interior planning, flat or low-pitched roofs, and integration of building and landscape. The building is irregularly shaped with a brick exterior and features a flat roof which extends into a covered walkway that connects the building to the dining hall to the east.

The existing Hillside Office/Commons building serves as a Central Customer Services Office and common space for Hillside College residents, which is open daily from 10:00 a.m. to 10:00 p.m. The office provides services including mail distribution, checkout of games, vacuums, and recreational equipment, and contains a large, quiet study area for use by residents during regular office hours. The Hillside Office/Commons also has two single apartments for Housing and Residential Life (HRL) staff. The building is proposed for demolition in the 2008 Campus Master Plan because it was determined the space could be used more efficiently to serve students, as further described in Section 2.5 below.

Figure 2-4a
Main Entrance View from Earl Warren Drive East

Figure 2-4b
Northwest Elevation Looking Southeast

Figure 2-4c
Northeast Elevation Featuring Covered Walkway Connecting to Hillside College Dining Hall (left), Looking Southwest

2.5 PROJECT PURPOSE AND OBJECTIVES

The 2008 Campus Master Plan proposed demolition of the existing Hillside Office/Commons building and, in its place, the construction of a new dining hall in a building that would also include a coffee house, convenience store, and new, expanded commons area that would include an activity room, housing office for the Hillside College, arts and crafts room, two residence coordinator apartments, and 35 flex residential units (approved project).

However, since Master Plan approval, other new facilities have been constructed on campus that now house some of the uses originally contemplated in the approved Campus Master Plan, eliminating the need for uses of a dining hall as originally described and evaluated in the 2008 EIR. Specifically, as a separate project, the Hillside Dining Hall just east of the project site was enlarged, and a coffee house was constructed inside the adjacent Los Alamitos dormitory building within the Hillside College. In addition, the HRL office building within the Parkside College residence hall complex, located in the northwest portion of CSULB and a campus-wide resource for students and residents, was demolished and is being replaced with a student residence building providing 476 beds.

As a result of these projects, a new dining hall within the Hillside complex is no longer necessary. However, the campus needs to construct a new HRL office to replace the Parkside complex housing administration building recently demolished, as well as expand the commons area and associated space for support services for Hillside College residents. As such, in place of the existing Hillside Office/Commons building, the proposed project would construct a new HRL office building and a new commons building.

In May 2014, the CSU Board of Trustees adopted the first systemwide Sustainability Policy, which applies sustainable principles across all areas of university operations, including facility sustainability improvements, energy and water efficiency retrofits, and incorporation of green building practices into new facility design. In addition, current CSU policy requires all new construction and major renovations to be achieve the equivalent of a silver level of certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. The LEED rating system assesses buildings in accordance with sustainability criteria across many areas, including location and transportation, energy and water efficiency, materials, indoor environmental quality, integration of the site with its natural environment, and innovation. In addition to adhering to LEED green building standards, CSULB is committed to pursuing the principles of Net Zero Energy (NZE) to all new campus buildings. Buildings will be designed to not only minimize consumption of energy and other natural resources, but also to use only as much energy as they can generate from renewable energy sources such as solar photovoltaic systems. Specifically, in 2016, CSULB President Conoley signed the Climate Commitment to integrate carbon neutrality with climate resilience and established the President's Commission on Sustainability in 2018, with the mission of integrating sustainability--defined as the intentional and simultaneous focus on environmental, social, and economic health--into all aspects of the university (CSULB 2016).

Accordingly, the proposed project would be consistent with the CSU's Commitment to Sustainability and the CSULB President's Climate Commitment. The design of the proposed project would require sustainable design features to meet and/or exceed energy goals, including exceeding Title 24 energy budget by at least 10 percent, attaining LEED Platinum Rating (LEED v4, BD&C), and constructing a NZE building in which 100 percent of the building's energy needs on a net annual basis would be supplied by on-site renewables. In addition, the campus will seek full Living Building Challenge certification for the HRL office and commons buildings, which is a

performance-driven design standard for self-sufficient buildings that incorporates design elements that encourage a regenerative built environment, wherein a building generates more energy than it consumes.

The 2008 Campus Master Plan identified the need to expand its residential offerings to serve their growing enrollment numbers, with approximately 33,034 FTES (38,776 head count)[2] enrolled in Fall 2019. As housing stock is expanding on campus to accommodate the existing student population, the proposed project would provide associated campus support services to support additional residents on campus. The proposed project would remain consistent with the major objectives of the 2008 Campus Master Plan, which include the following:

- Share in the need to accommodate the demand for higher education by students in California by providing the necessary facilities and improvements.
- Improve, update, and replace outdated, inefficient and obsolete facilities.
- Provide high quality services that enhance access and usability.
- Maintain and enhance campus open space, character, and the quality of the physical environment.

The overall purpose of the proposed project is to provide the space needed for student support services, including a housing and residential life office and a commons space in a central, accessible location within the Hillside College complex. Specific objectives of the proposed project are as follows:

- Replace existing residential support facilities that are too outdated and undersized to support the full range of needed support services.
- Site the proposed HRL office building and proposed commons building in the same location as the existing, original Hillside Office/Commons building, to maintain the historic spatial relationship to the existing Hillside College Complex residential buildings, hardscape, and landscape that comprise the historic district, as well as to maintain the building's presence and accessibility along Earl Warren Drive.
- Site the proposed HRL office building and commons building within the Hillside College Complex in a way that best utilizes existing parking that is convenient and accessible for campus students, employees and visitors.
- Provide a centralized and accessible HRL office building and commons building for students in the Hillside and Parkside College Complexes, to provide a safe and comfortable living environment for students.

[2] A full-time undergraduate student within the CSU system is expected to enroll in 15 units each term. One full-time equivalent student, or FTES, is defined as one student taking 15 course units, and therefore one student for purposes of headcount. Two part-time students, each taking 7.5 course units, also would be considered one FTES, but two headcount students. Therefore, the total student headcount enrollment is higher than the FTES enrollment. As average course loads vary, so does the relationship between FTES and headcount.

- Provide high-quality programming services for students that includes adequate space for commons, administration, and HRL staff.

- Provide open space for students to recreate and socialize.

- Be consistent with campus-wide sustainability policies supporting the achievement of net-zero/net-positive energy consumption goals.

- Ensure that the new HRL office building and commons building are consistent with the 2008 Master Plan's site and architectural guidelines.

2.6 PROJECT COMPONENTS

The project proposes to demolish the existing 5,700-square-foot (SF) Hillside Office/Commons building and construct two new buildings in its place: a two-story, 8,000-SF commons building and a single-story, 4,500-SF HRL office building. The proposed commons building would be a maximum of 38 feet in height above adjacent grade and the proposed HRL office building would be a maximum of 26 feet in height above adjacent grade. The two buildings would flank a canopy-covered central courtyard that would serve both, and the main entrances to the two buildings would face each other across the courtyard. Figure 2-5 shows a site plan of the proposed project, and Figures 2-6, 2-7 and 2-8 present renderings of the buildings.

The proposed commons building would replace the commons area in the existing Hillside Office/Commons building and would serve a similar purpose, providing study and recreational areas for students. Five one- and two-bedroom apartments and an outdoor terrace would be provided on the second floor of the proposed commons building to replace two one-bedroom apartments that would be lost to demolition of the existing Hillside Office/Commons building. The proposed commons building would be ADA-accessible and include an elevator in the northeastern portion of the building as well as two staircases on the east and west sides of the building.

The proposed buildings would incorporate energy efficient, sustainable, water and waste efficient, and resilient features to achieve LEED Platinum Rating, NZE Rating, and Full Living Building Challenge Certification. A total of approximately 400 solar photovoltaic (PV) panels would be installed on the roofs of the two buildings and the central courtyard canopy to generate approximately 89 kilowatts of energy. Existing building-serving utilities, including storm drain, electrical, and water and wastewater, would be removed and replaced to appropriately serve the new buildings.

Up to 55 landscape trees would be removed with the project to allow for construction. New landscaping would also be installed as part of the project. CSULB's "Campus Forest" initiative aims to replace trees on at least a one-for-one basis either within the project site or elsewhere on campus, and therefore up to 55 new trees would be planted as part of the project.

The proposed buildings are designed to encourage student involvement while creating a unique indoor-outdoor experience. In accordance with the CSULB 2008 Master Plan site and architectural guidelines, the siting of the proposed buildings has been coordinated with the open spaces of the campus in order to provide for enhanced pedestrian circulation patterns, and feature broad and welcoming entrances. As shown in Figure 2-7, the buildings utilize roof overhangs, trellises and courtyards as a means of transitioning outdoor to interior spaces, and outdoor seating is provided for individuals and groups in a variety of locations to encourage student use of the space.

The proposed buildings would feature massing and use contemporary building materials, which would be a departure from the existing traditional brick and concrete palette of the existing Hillside College complex. As shown in Figure 2-8, the proposed commons building elevator tower, visible from other buildings within the existing Hillside College Complex, would create a visual tie to the brick walls and concrete bands of the existing surrounding buildings. The tower would provide a new visual focal point within the complex to identify and draw focus to the proposed commons building and HRL office building as a central gateway and commons facility.

The design of the proposed buildings would allow for more sustainable construction in the use of recycled and higher performing building materials and systems, and incorporates warmer tones that are considered reflective of a modern HRL facility. The materials used for the interior, exterior and subterranean areas of the proposed buildings would be vetted for compliance with the Red List, prohibiting the use of any materials which may have chemicals of concern.[3] Materials with environmental product declarations, which disclose a product's life cycle assessment and includes its global warming potential, would be used to the extent possible. Construction waste management would be implemented using a net positive waste strategy which includes diverting 99 percent of metal, paper, cardboard, and 100 percent of soil and biomass; diverting 95 percent of rigid foam, carpet, and insulation; diverting 90 percent of all other materials; and reuse of existing brick and diverting 95 percent of total construction and demolition debris from landfills. Materials with high solar reflectance indexes would be used to help mitigate heat and allow light to reflect naturally throughout the space.

Design of the buildings would include operable windows, which would allow for passive ventilation strategies, and provide direct access to outdoor air and natural daylight. State of the art enhanced mechanical systems would optimize energy efficiency and contribute to NZE goals. Enhanced filtration media would be used at all mechanical systems to enhance air quality throughout occupancy, which would increase volumes of fresh outdoor air. Recycled water pipelines would be installed to save approximately 4,300 gallons of potable water daily. In addition, energy and water submeters would be employed to optimize building technology as well as inform ongoing operations and maintenance demands.

Outside, on-site solar PV would be installed on the roofs and canopy to support NZE design. The canopy-covered courtyard would provide shade as well as support and activate the space between the buildings. Bicycle racks would be provided in a location that accommodates preferred access to the buildings and a connection to the existing campus bicycle network, to encourage its use and support CSULB's goal of reducing single-commuter vehicular traffic on campus. Bioswales with native riparian planting would be installed throughout the western and northern perimeters of the project site and flow towards the proposed bioretention area. Bioswale, open space, and rainwater management would capture and/or infiltrate 100 percent of stormwater for groundwater recharge.

Following construction, the air would be flushed and indoor air quality would be tested for presence of particulate matter, formaldehyde, smoke, volatile organic compounds and other chemicals of concern prior to occupancy.

Table 2-1 summarizes the proposed uses for each building.

[3] The Red List contains the worst in class materials prevalent in the building industry. The commonly used-chemicals on the Red List are polluting the environment, bio-accumulating up the food chain until they reach toxic concentrations, and harming construction and factory workers.

Table 2-1
Proposed Uses for Commons and HRL Office Buildings

Proposed Building	Proposed Uses
Commons	<u>1st floor</u> • Community space with kitchen (1,088 SF) • Front desk area (179 SF) • Mail room (103 SF) • Storage room (160 SF) • Wellness room (113 SF) • Practice room (96 SF) • BDF room (120 SF) • 4 offices (ranging from 105-112 SF) • Resource/storage room (188 SF) • Conference room (248 SF) • Women's restroom (158 SF) • Men's restroom (148 SF) • All gender restroom (69 SF) • Custodial closet (62 SF) • Fire riser room (10 SF) • Mechanical electrical room (198 SF) <u>2nd floor</u> • 2 two-bedroom apartments (667-685 SF) • 3 one-bedroom apartments (535-538 SF) • Outdoor terrace (316 SF)
HRL Office	• Lobby (289 SF) • 10 offices (100-111 SF) • Executive director office (172 SF) • Small conference room (181 SF) • Open office space (766 SF) • IDF room (114 SF) • Workroom (226 SF) • Large conference room (364 SF) • Break room (236 SF) • Administrative storage and copy room (89 SF)

SF = square feet
BDF and IDF rooms contain data switches

Source: Esri, 2019.

Project Site
Proposed Pedestrian Pathways
Proposed Bioretention Area
Proposed Median

0 50 100 Feet

Figure 2-5
Proposed Site Plan

Figure 2-6
Rendering of Commons Building (left) and
HRL Office Building (right) from Earl Warren Drive

Figure 2-7
Rendering of Commons Building and Canopy-Covered Courtyard

Figure 2-8
Rendering of Commons Building and Elevator Tower (left)
from within the Hillside College Complex

In order to construct the proposed project, pedestrian and vehicular access in the area would be modified. Concrete in pathways surrounding the existing Hillside Office/Commons building would be removed and replaced to appropriately serve the proposed buildings. The median on Earl Warren Drive in front of the existing Hillside Office/Commons building would be removed to accommodate the proposed buildings which extend farther west than the existing building. Additionally, the existing northern and southern medians would be shortened for the section of road along the project site where the curb is shifted. This would require demolition of asphalt, repaving, and restriping. The two northbound and two southbound lanes on Earl Warren Drive would be maintained in the vicinity of the proposed project. Additionally, the drop-off/pick-up zone would remain in front of the proposed HRL office building and proposed commons building. The campus shuttle zone would be slightly shifted to the north of the existing zone. In addition, the fire lane and bus stop along Earl Warren Drive would be restored. The project would not include additional parking facilities. The proposed project is not expected to generate additional vehicle trips during operation since the buildings would serve existing students.

Following construction, the proposed project would generally serve the same functions as the existing Hillside Office/Commons building, providing office space and a location for students to study and lounge. It is anticipated that the new HRL office building and new commons building would be open to students on a 24-hour basis, 7 days a week. The proposed buildings would be designed to be sustainable and achieve an NZE rating, and are expected to generate less energy and water demand than the existing Hillside Office/Commons building.

Construction

Construction of the proposed project would last approximately 15 months and is currently anticipated to commence as early as August 2020 and be completed in October 2021. The majority of construction activities are anticipated to occur during daytime hours, generally from 7:00 a.m. to 4:00 p.m., Monday through Friday. However, it is anticipated that some nighttime hours and weekends may be required in order to maintain the construction schedule and minimize road detours. All construction activities would comply with Section 8.80.202 of the Long Beach Municipal Code regarding construction noise. Approximately 50 construction workers would be on site daily with a peak of approximately 100 construction workers during construction of the buildings and road. Construction workers would park in the surface lot adjacent to E. Atherton Street between Earl Warren Drive and Merriam Way.

Construction-related disturbance would encompass an area of approximately two acres, be excavated to a maximum depth of ten feet, and would involve several phases, including demolition, site preparation, structural work, and architectural coating. The demolition phase would take approximately two months and include utilities work, hazards abatement, as necessary, demolition of the existing Hillside Office/Commons building, and clearing and grubbing of the area. Following demolition, foundations would be constructed for the proposed HRL office building and proposed commons building, utilities would be installed underground, and concrete slabs would be poured. Once the foundations are completed, structural work for the buildings would begin and take approximately three months to complete. Structural work includes erecting the steel structures, metal decking, and reinforcing and fireproofing the structures. Following structural work, the buildings' exteriors would be completed. Lastly, interior construction, finishes, and installation of mechanical, electrical, and plumbing systems would occur.

Demolition and construction of Earl Warren Drive would last approximately seven months. Construction activities for the road would disturb approximately 0.75 acres and generally be excavated up to two feet, and include demolition, site preparation, and paving. Limited utility

trenching for a reclaimed water line would require excavation of 4 to 6 feet along the northern section of the northbound lanes of Earl Warren Drive for approximately 270 linear feet. Prior to demolition, the area would be cleared and grubbed. The existing concrete asphalt pavement would be demolished, graded and compacted, and restriped.

A temporary partial closure of Earl Warren Drive would be required during most construction activities. Earl Warren Drive would be reduced to a single-lane in each direction during construction hours for equipment and material deliveries. In addition, Earl Warren Drive would be reduced to one lane for approximately three to six weeks to resurface the street. The southbound lane of Earl Warren Drive closest to parking lot G2 would remain open and access to lot G2 would be maintained throughout the project duration. A vehicular and pedestrian traffic management plan would be developed and approved prior to the start of construction.

For construction of the proposed buildings, the maximum number of trucks per day would be 20 and would occur during the site preparation activities. For road construction, a maximum of 10 trucks per day would be required during the most intensive phase of construction, which would be during paving activities. Equipment required for construction of the proposed project include backhoes, a concrete saw, a compactor, a crane, a dozer, an excavator, a forklift, a grader, a loader, a paver, and a roller. Approximately 4,000 cubic yards of excavated soil and 1,060 tons of demolition debris would be hauled to Puente Hills Materials Recovery Facility, located approximately 23 miles north of the project site.

Five locations have been identified within the campus as potential areas for a construction laydown yard for the proposed project, as shown in Figure 2-9. One identified location is on Earl Warren Drive within the project site in the lane closest to the existing Hillside Office/Commons building. Additionally, two locations in existing parking lots and two locations within the Hillside College complex have been identified. The potential construction laydown yard locations within existing parking lots would either be in Lot R2, located north of the Bouton Creek flood control channel and east of Earl Warren Drive, or Lot R1, located east of the Hillside Dining Hall. If chosen as the construction laydown yard location, a portion of the existing parking lot would be fenced off and temporarily unavailable to park in as the space would be used for stockpiling soils until they can be hauled off-site. Access to the parking lot entrance would be maintained, and parking spaces would be restored following construction activities. The potential construction laydown yard locations within the Hillside College complex would either be in the open area between Los Cerritos Hall and Beach Drive, or in the open area between of Los Alamitos Hall and surface parking lot G4. The proposed project would implement standard best management practices, including a Storm Water Pollution Prevention Plan, and comply with National Pollutant Discharge Elimination System requirements, as described in the 2008 EIR. The open areas would be restored following completion of construction activities.

There are several proposed truck haul routes to the project site. Trucks would access the project site by traveling west along California State Route 22 from Interstate 405, routing north along N. Bellflower Boulevard, and then traveling east on Beach Drive until reaching Earl Warren Drive. Trucks would also access the project site from Interstate 405 by traveling south either along N. Bellflower Boulevard to Beach Drive, or Palo Verde Avenue to E. Atherton Street until reaching Earl Warren Drive.

Figure 2-9

Potential Locations for Construction Laydown Yard

2.7 CUMULATIVE IMPACTS

According to Section 15355 of the CEQA Guidelines, cumulative impacts refer to:

> "Two or more individual effects which, when considered together are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment which results from the incremental impact of a project when added to other closely related past, present, and reasonably foreseeable probably future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

Additionally, Section 15130(a) of the CEQA Guidelines States:

> "An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable… When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR… An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant…if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact."

Pursuant to Section 15130(b)(1)(A) of the CEQA Guidelines, a list of past, present, and probable future projects producing related or cumulative impacts may be used as the basis of the cumulative impacts analysis. The "list" approach was used for the cumulative impacts discussion in this Supplemental EIR. The scale or geographic scope of related projects varies for each impact category. For instance, cumulative geology and soils or aesthetics impacts, as analyzed in the 2008 EIR, are considered localized, while cumulative energy and greenhouse gas emissions are considered regional. Table 2-2 includes all the approved or proposed development projects that would occur within the proposed project construction timeframe and located on the CSULB campus or within a one-mile radius of the campus. This Supplemental EIR addresses cumulative impacts in each environmental resource section.

Table 2-2
Related Projects

Project Name	Location	Project Description
Los Cerritos Dormitory Renovation – Exterior	CSULB Campus	Exterior renovation, including new building signs, replace lower roofs, replace windows, upgrade exterior building lights to LED
Los Alamitos Dormitory Renovation – Exterior	CSULB Campus	Exterior renovation, including new building signs, replace lower roofs, replace windows, upgrade exterior building lights to LED
HHW South Loop Laterals	CSULB Campus	Replacement and upgrades of heating hot water lateral lines, including restoration of affected hardscape and landscape
MSX Campus-Wide Parking Lot Restoration Summer 2020	CSULB Campus	Restoration of existing parking lots, including but not limited to asphalt replacement, curb and gutter, landscape and irrigation, slurry seal and striping
MSX Campus-Wide Parking Lot Restoration Summer 2021	CSULB Campus	Restoration of existing parking lots, including but not limited to asphalt replacement, curb and gutter, landscape and irrigation, slurry seal and striping
Parkside Housing Project	CSULB Campus	H&RL Housing Expansion Phase I
Alumni Center	CSULB Campus	Construction of new building
FCS Childcare Center	CSULB Campus	Construction of new building or renovation of existing building
Horn Center/University Art Museum	CSULB Campus	Renovation of existing 50,000 gross square feet and addition of 4,000 gross square feet
Bellflower Boulevard from Garford Street to Stearns Street	Bellflower Boulevard between Garford Street and Stearns Street, Long Beach	Roadway improvements including resurfacing; curb, gutter, and sidewalk improvements, construct curb ramps and bus pads, and replace pavement markings
Anaheim Road Bridge	Anaheim Road, Long Beach	Bridge deck repairs
Storm Drain Pump Station Repair	Atherton Street at the Los Cerritos Channel, Long Beach	Storm water pump repair and upgrades

Source: CSULB, 2019; City of Long Beach Proposed FY 20 Capital Improvements List, 2019; City of Long Beach Development Projects Map, 2019.

2.8 DISCRETIONARY ACTIONS WHICH MAY BE REQUIRED

The CSU Board of Trustees would be responsible for certification of the EIR and approval of the Housing Administration and Commons Building Project. Permits and other use authorizations that may be required from external agencies include, but may not be limited to, the following:

California State Fire Marshal

- Plan Review

Division of the State Architect

- ADA Accessibility Compliance

City of Long Beach

- Long Beach Health Department

Long Beach Fire Department

- Fire access plan review

CSULB

- Building Code Plan Check
- Seismic Safety Structural Peer Review
- Capital Planning and/or Campus Planning Committee
- Campus Deputy Building Official
- Campus Departments – Environmental Health and Safety, Facilities Management, Disabled Student Services, Information and Telecommunication Services

3. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

The following sections of the Supplemental EIR examine the potential environmental effects associated with implementation of the proposed project by issue area. Each environmental issue area is discussed in the following manner.

Environmental Setting includes a description of the existing physical environmental conditions, or "baseline conditions," at the time the environmental analysis is commenced to compare and establish the type and extent of the potential environmental effects of the proposed project. The baseline conditions are tailored specifically for the resource area discussed in each section.

Regulatory Setting identifies the applicable federal, state, and/or local regulations.

Environmental Impact Analysis includes the methodology, thresholds of significance, and impact analysis, described below.

- **Methodology** describes the sources or methods utilized in the preparation of the impact analysis for each resource topic. This subsection includes the criteria that help evaluate the degree of significance for each potential impact.

- **Thresholds of Significance** identifies the standards by which the lead agency measures the significance of an impact.

- **Impact Analysis** presents evidence, based to the extent possible on scientific and factual data, about the cause and effect relationship between the project and potential changes in the environment. The exact magnitude, duration, extent, frequency, range or other parameters of a potential impact are ascertained to the extent possible to provide facts in support of finding the impact to be or not to be significant. In determining whether impacts may be significant, all the potential effects, including direct effects and reasonably foreseeable indirect effects, are considered.

Mitigation Measures identify measures that can reduce or avoid the potentially significant impact identified in the analysis. Standard existing regulations, requirements, and procedures applicable to the project are considered a part of the existing regulatory environment and are not considered or included in mitigation. Mitigation measures are those feasible, project-specific measures which are required, in addition to compliance with existing regulations and requirements, to reduce significant impacts. In addition to measures that the lead agency has sole authority to implement, mitigation can also include measures that are the responsibility and jurisdiction of another public agency (CEQA Guidelines Section 15091[a][2]).

Level of Significance after Mitigation indicates what effects remain after the implementation of mitigation measures, and whether the remaining effects are considered significant. When impacts, even with the inclusion of mitigation measures, cannot be mitigated to a less than significant level, they are identified as "unavoidable significant impacts." To approve a project with unavoidable significant impacts, the lead agency must adopt a Statement of Overriding Considerations at the time of EIR certification. In adopting such a statement, the lead agency must find that it has reviewed the EIR, balanced the benefits of the project against its significant effects, and concluded that the benefits of the project outweigh the unavoidable adverse

environmental effects, and thus, the adverse environmental effects may be considered "acceptable" (CEQA Guidelines Section 15093 [a]).

Cumulative Impacts considers whether two or more individual effects resulting from the incremental impact of a project, when added to other closely related past, present, and reasonably foreseeable probably future projects, may compound or increase other environmental effects. It determines whether the change in the environment results in considerable contributions to cumulative effects.

A consistency analysis was conducted to compare the proposed project with the project analyzed in the 2008 EIR, to determine which CEQA topics warranted further analysis in this Supplemental EIR. As such, this Supplemental EIR evaluates the following four environmental issue areas on which the proposed project could have new or substantially more severe direct, indirect, and/or cumulative environmental effects:

- Cultural Resources (Section 3.1)
- Energy (Section 3.2)
- Greenhouse Gas Emissions (Section 3.3)
- Tribal Cultural Resources (Section 3.4)

Based on Table 4-1 in Chapter 4, Other CEQA Topics, of this Supplemental EIR, the following environmental issues were determined to not have new or substantially more severe significant direct, indirect, and/or cumulative environmental effects as the result of implementation of the proposed project. Therefore, further detailed evaluation of these environmental issue areas is not warranted in this Supplemental EIR. Chapter 4, Other CEQA Topics, includes a brief discussion of the impacts that were found not to be significant, as follows:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

3.1 CULTURAL RESOURCES

This section analyzes the potential impacts of the proposed project as it relates to cultural resources, including built historical resources and archaeological resources. The analysis in this section is based in part on information contained in the Historic Resource Assessment Report (Architectural Resources Group (ARG)(2020) and Extended Phase I Cultural Resources Assessment (AECOM 2020) prepared for the proposed project and provided in Appendices A and B of this Supplemental EIR, respectively.

The section is intended to supplement the 2008 EIR and evaluate the proposed project's potential impacts to cultural resources based on project modifications, changed circumstances, and/or new information that was not known and could not have been known with the exercise of reasonable diligence at the time the prior document was certified. At the time the 2008 Campus Master Plan was prepared, the existing Hillside Office/Commons building did not meet the age threshold for a potential historical resource. The building, which is proposed to be demolished, is now 50 years old and, therefore, requires evaluation pursuant to CEQA. In addition, potential impacts on known significant archaeological sites located in the vicinity of the proposed project are evaluated. The analysis contained herein incorporates the required programmatic mitigation measures from the 2008 EIR, which includes previous consideration of archaeological resources. Mitigation Measures CR-1 through CR-5 described below in Section 3.1.4, Mitigation Measures, are derived from the 2008 EIR and applicable to the proposed project. Project-specific mitigation measures, Mitigation Measures CR-6 through CR-10 are also provided below to supplement the required mitigation measures from the 2008 EIR.

3.1.1 Environmental Setting

The project is located on the CSULB campus in coastal Los Angeles County, within the campus's Hillside College residence hall complex (Hillside College complex). The Hillside College complex encompasses a 21-acre area and is bound by the campus border with the Veterans Affairs (VA) property to the south, Earl Warren Drive to the west, the campus's Parking Lot G4 and the Los Cerritos Channel to the north, and Merriam Way and Student Health Services to the east. The project site includes the existing Hillside Office/Commons building, which fronts Earl Warren Drive, a two-lane road that provides primary north-south vehicular access to and through the campus. The building is generally bound by a surface parking lot (Lot G2) to the west, Hillside residence halls to the north and south, and the Hillside Dining Hall to the east.

Archival Research

Archival research for the entire CSULB campus and within a 0.5-mile-radius of the campus was conducted on March 6, 2019, at the South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton. The SCCIC is the Information Center of the California Historical Resources Information System (CHRIS), which maintains information about Ventura and Los Angeles Counties. This search included their collections of mapped prehistoric, historic, and built environment resources; Department of Parks and Recreation Site Records; technical reports; and ethnographic references. Additional sources included historical maps of the proposed project site, the NRHP, the California Register of Historical Resources (CRHR or California Register), the California Historic Property Data File, and the lists of California State Historical Landmarks, California Points of Historical Interest, and the Archaeological Determinations of Eligibility.

Results of the cultural resources records search indicated that 39 previous cultural resource studies have been conducted within 0.5-mile (800 meters) of the project site between 1974 and 2011. Of these 39 studies, 20 overlap all or a portion of the project site. A summary of all 39 of the previous cultural resource studies can be found in Appendix B of this Supplemental EIR.

Site CA-LAN-235 (P-19-000235) overlaps the western boundary of the project area, encompassing Earl Warren Drive and a portion of the western lawns in front of the existing Hillside Office/Commons building. The site is a contributor to the Puvunga Indian Village Historic District, which is a complex of three sites listed in the NRHP, also known as the 22 acres. The other two sites in the district are located in the vicinity of CA-LAN-235. CA-LAN-234 is located to the south of the project site overlapping the CSULB campus and the Veterans Administration campus. The third site, CA-LAN-306 is located to the southeast in the vicinity of Bixby Ranch. However, the CA-LAN-235 has never been evaluated for NRHP eligibility as an individual property. Site records and other studies, initially prepared in 1960, indicate this site extended from the surface to a depth of up to approximately 1 meter below ground surface. The detailed historic overview and cultural setting of CSULB, the Hillside College residence hall complex, and the Puvunga Indian Village Historic District are included in Appendices A and B of this Supplemental EIR.

Previously Recorded Cultural Resources

A total of 27 previously recorded built and archaeological cultural resources are located within 0.5 mile of the project site. The project site partially overlaps one of these 27 resources, site CA-LAN-235 (Puvunga Indian Village Historic District). The remaining 26 resources are located outside the project site but within the 0.5-mile records search area, and include the following: two historic buildings, Long Beach Veterans Medical Center (P-19-187656) and Olan and Aida Hafley House (P-19-189991); one historic site, Navy Hospital Refuse Deposit (CA-LAN-4797/H); two multi-component sites, CSULB Isabel Patterson Child Development Center Site (CA-LAN-705) and CSULB Swimming Pool Site (CA-LAN-2630/H); and 21 prehistoric sites (CA-LAN-234, CA-LAN-703, CA-LAN-704, CA-LAN-1000, CA-LAN-1002, CA-LAN-1003, CA-LAN-1004, CA-LAN-1005, CA-LAN-1006, CA-LAN-2616, CA-LAN-2629, P-19-120040, P-19-120041, P-19-120042, P-19-120043, P-19-120044, P-19-120045, P-19-120046, P-19-120047, P-19-120052, and P-19-120053).

3.1.1.1 Built Historical Resources

Hillside College comprises eight detached buildings that share a cohesive architectural vocabulary. Buildings A, B, D, and E, which are residence halls, are large, dumbbell-shaped buildings with bilateral symmetry. Buildings C (also called Naomi Rainey House) and F are also used as residence halls but have smaller, asymmetrical footprints. They anchor the north and south ends of the complex. Buildings G and H are located at the center of the complex and have irregular footprints. Building G, referred to as the existing Hillside Office/Commons building in this Supplemental EIR, is occupied by offices and common spaces. Building H is used as a dining hall. All eight of the buildings in Hillside College are oriented around a central designed landscape that transects the complex and provides it with visual cohesion.

The Hillside Office/Commons building is located near the center of the Hillside College Residence Hall Complex and anchors its western edge. The building's primary elevation faces west toward Earl Warren Drive and represents the public face of the residential complex, as shown in Figure 2-4a in Chapter 2, Project Description, of this Draft EIR. The Hillside Office/Commons building is a symmetrical building fronted by a shallow, landscaped entrance court. It has an irregular footprint, is constructed of cast concrete, and sits on a poured concrete foundation,

though it is smaller in size than the other buildings and is one story instead of two. The existing building was constructed in 1969 in a Mid-Century Modern style, which is characterized by wood or steel framing, rectilinear building forms, open interior planning, flat or low-pitched roofs, and integration of building and landscape. It is capped by a flat roof and a concrete cornice, and exterior walls are clad with a combination of Norman brick veneer and painted concrete. Appended to the rear/east elevation of the Hillside Office/Commons building is a sheltered breezeway pedestrian connection between the building and the adjacent Dining Hall (Building H), which together constitute the social core of Hillside College.

Hillside College is extensively landscaped. All eight of its buildings open onto a central designed landscape that transects the complex and responds to its subtle changes in grade. The landscape is defined by wide expanses of grass, mature trees, and shrubs and groundcover around the perimeters of buildings and along the contours of small hills, resulting in an exceptionally lush, parklike setting and a prevailing sense of visual cohesion. The landscape is bisected by a network of curvilinear footpaths that are finished in concrete and facilitate pedestrian circulation throughout the complex. Landscape features around the existing Hillside Office/Commons building are shown in Figures 2-4b and 2-4c in Chapter 2, Project Description.

Historic Context

The essential physical characteristics that define the Hillside College Residence Hall complex – notably, its general location, site plan, architectural vocabulary, and the relationship between buildings and landscape – reflect concerted efforts at campus master planning for CSULB that were implemented in the 1950s and substantially amended in the 1960s. These master planning efforts laid the blueprint for subsequent development at CSULB and played a significant role in shaping the campus's built environment.

CSULB was conceived of in 1949 to serve the residents of southeast Los Angeles and Orange counties, and was established as a permanent campus in 1950. From 1950 to the early 1960s, noted Long Beach architect Hugh Gibbs developed the institution's first-ever master plan. Construction of the first permanent buildings began after approval of Gibb's master plan in 1953, with several completed in 1955. While a few of the early buildings were designed by Gibbs himself, most were designed by staff architects employed by the State Division of Architecture, using standardized designs that were replicated across the CSU system as a way of keeping construction costs down. However, problems with the Gibbs master plan became evident not long after it was implemented. Most pressing were issues related to capacity. Per the direction of administrators, Gibbs had developed the master plan to accommodate 5,000 full-time students, but student enrollment significantly surpassed early projections and swelled to 10,000 by the fall of 1960. Additionally, administrators and students expressed dissatisfaction with the buildings designed by the State Division of Architecture, with many grousing that these buildings were bland and ubiquitous. In 1961, the Board of Trustees for the CSU system had grown so dissatisfied with the quality of design at its campuses that it decided to discontinue using the State Division of Architecture and instead recruit private practice architects to oversee matters related to design and construction.

In 1962 the noted local architectural firm of Killingsworth-Brady-Smith and Associates was retained to serve as consulting campus architect – a role that the firm, and specifically Killingsworth continuously filled until he eventually retired in 2001. Killingsworth's long tenure provided the Long Beach campus with a characteristically cohesive aesthetic that is not found at many other campuses within the CSU system. Killingsworth's master plan was adopted in 1963, which included the construction of a new dormitory complex to the northwest of the academic

core, where Hillside College is located today. In 1965, campus administrators announced plans to construct a new residence hall complex at the west end of Lower Campus and adjacent to Los Alamitos and Los Cerritos Halls, in the approximate location that Killingsworth had specified in the master plan. Conceptual plans for the buildings and landscape features were developed in 1966, and state funding for construction of the complex was appropriated shortly thereafter, in 1967-1968. Architectural firm, Neptune and Thomas and Associates, was hired to design the complex in consultation with Killingsworth. Neptune and Thomas's design deviated from the master plan with respect to scale. However, with respect to concept, Neptune and Thomas's design reflected essential tenets of the master plan. Specifically, it was located at the west end of the Lower Campus, was geographically removed from the academic core, directly interacted with the two existing dormitory buildings, was oriented around an internal circulation network with a residential character and evinced a sense of community. It also embodied the integral relationship between buildings and site that was such a pivotal tenet of the plan. Their design consisted of six residence halls, a central commons/office, and a dining hall, all of which were oriented around a central landscape that was designed by consulting campus landscape architect Ed Lovell.[4] Construction of the complex began in 1967 and was completed by 1969. In 1971, the American Institute of Architects gave Donald Neptune and Joseph Thomas a Triennial Honor Award for their design of Hillside College.

Generally, Hillside College and its requisite buildings and landscape/site features have experienced few alterations over time. Exterior alterations to the six residence halls (Buildings A through F) are relatively minor in scope, are limited to the replacement of original windows and light fixtures, and have not resulted in substantial changes to these buildings' appearance. To date, most exterior alterations at the complex have been confined to Building H. Most notably, this building has experienced three additions – one on the east elevation (2001), and two on the west elevation (2015). These additions have substantially augmented the square footage of this building and have modified its original plan and configuration. These additions have also changed the way in which Building H spatially relates to the other buildings and site features at Hillside College, particularly with the adjacent Hillside Office/Commons building.

Mid-Century Modern Architecture

The Hillside College Residence Hall complex is designed in an institutional derivative of the Mid-Century Modern style unique to the CSULB campus, which was applied throughout the campus during its formative years. Conceived by Hugh Gibbs and honed by Ed Killingsworth and the private practice architects with whom he collaborated, this dialect of Modernism provided the campus with a strong sense of aesthetic cohesion and a discernible architectural identity that is rooted in the tenets of the Modern movement.

"Mid-Century Modern" is a broad term that is used to describe the various derivatives of Modern architecture that flourished in the post-World War II period. These include post-war adaptations of the chaste and machined International Style, the rational aesthetic associated with post-and-beam construction, and more organic and expressive interpretations of the Modern architectural movement. Mid-Century Modernism was popular between the mid-1940s and early 1970s. It proved to be a remarkably versatile idiom that was expressed through a wide variety of property types ranging from single residences, to large-scale housing tracts, to commercial buildings, and to institutional properties and college campuses. Its aesthetic was deftly incorporated into both

[4] Lovell's involvement in the project was gleaned from construction documents dated 1966 and accessed Sept. 2019 via the CSULB Office of Physical Planning and Sustainability

high-style buildings and the local vernacular, and was employed by architects, developer-builders, and lay contractors alike.

The group of architects who shaped and melded the CSULB campus during its formative years developed a variant of Modernism that was applied across the campus and provided it with its characteristically unified aesthetic. This visual vocabulary was set into motion by original master plan architect Hugh Gibbs, who in 1953 established the prevailing scale and dominant material types for all new campus buildings. In the 1960s, Killingsworth took these design principles a step further, transposing them into a codified architectural vocabulary that was intended to bridge existing buildings with new construction and ensure that all development on campus was orderly and cohesive. Per Killingsworth, all buildings were to be constructed of concrete; roofs were to be flat; exterior walls were to be finished in slender Norman bricks, painted concrete, and/or textured plaster; windows were to be metal sash and, when applicable, covered with aluminum sunscreens finished in bronze tones; and building and site features would ascribe to a neutral color palette based on the Plochere Color System (ARG 2020).

Generally, the Mid-Century Modern style, expressed in the context of public institutional architecture and the architecture of CSULB, exhibits the following character-defining features:

- Simple, geometric building forms;
- Concrete, steel, and glass construction (larger buildings); wood construction (smaller buildings);
- Direct expression of the structural system;
- Flat roofs, with or without eaves;
- Flush-mounted metal frame windows (often expressed as curtain walls in larger buildings);
- Metal window screens (brise soleil), often comprising geometric patterns or motifs;
- Minimal surface ornament and decorative details; and
- Integrated landscapes, often in the form of courtyards or plazas.

3.1.1.2 Archaeological Resources

The following section summarizes the prehistoric and historic overview related to the Puvunga Indian Village Historic District and CSULB (AECOM 2020). A portion of the Puvunga Indian Village Historic District known as “the 22 acres,” located to the west of Earl Warren Drive, is actively used for ceremonies by Native American groups.

Cultural Setting

Important archaeological sites are documented on and around CSULB campus; however, many of the archaeological sites documented in the records search were recorded by Keith Dixon in the 1970s. Those archaeological sites were subsequently reexamined and tested by multiple archaeologists and found not to be archaeological sites, or to consist only of sediment containing archaeological material which was redeposited from elsewhere. These resources consist primarily of dark-colored soil with some shell, potentially dug up elsewhere and brought to its current location by landscaping or construction. In many cases, no artifacts were located in these deposits, and they may represent natural sediment and not valid archaeological resources. Redeposited archaeological material generally has diminished data potential because its original context has been lost. However, displaced artifacts and even soils may still retain their cultural significance, particularly for descendant Native American communities. Fifteen locations where archaeological sites were at one time recorded, have been found to consist only of redeposited soils.

A complete study of the history of archaeological exploration at CA LAN-235 from the time it was first documented in 1960 until 1994 was prepared by Jeffrey H. Altschul. No major field studies have been conducted on the portion of CA-LAN-235 located on CSULB property since 1994. Altschul had access to all the studies housed at the SCCIC, as well as the results of field school excavations that are documented in reports presumably housed at CSULB but not available at the SCCIC.

Puvungna

Puvungna[5] is often associated by today's Juaneño with the place of creation and the scene of important activities by several culture heroes or gods. According to a Spanish priest based at Mission San Juan Capistrano named Geronimo Boscana, an "invisible and all-powerful being called Nocuma made the world, the sea, and all that there is" (Boscana 1978). Eventually, a descendant of these first people, named Ouiot, rose to prominence at Puvungna. Ouiot came to power through kindness and generosity, and thereby came to rule not only Puvungna but also the surrounding villages. But over time, Ouiot began to persecute his subjects, and the people came to resent his heavy-handed rule. The people poisoned and killed him and then cremated him. This was not universally said to have happened at Puvungna, however; different tribes sang that the god was cremated in different places.

After the cremation, the people came together to discuss "the collecting of grain or seeds of the fields, and flesh to eat, for up to this time they had fed upon a kind of clay" (Boscana 1978). At this time, a mysterious figure named Attajen, which means "man" or "rational being," appeared at the council, selected various elders, and gave their lineages different powers: to create rain, cause various plants to grow, or create animals. But according to the inland people, Chinichnich appeared in the smoke of the cremation fire at this time and created modern people from the clay of a nearby lake. Where this happened, Boscana does not say, but many people conflate the two versions and state that this creation of modern humans from clay also happened at Puvungna.

The Chinichnich religion is generally considered relatively young. Beginning among the Gabrielino, it spread to the Luiseño, Juaneño, and Kumeyaay. It was intensely studied by twentieth-century anthropologists, many of whom believed it developed as a response to the illnesses and social disruption caused by European contact. Harrington believed Chinichnich was a prophet born at Puvungna who came to be divinized, but whether there was a historical Chinichnich is an unanswerable question by the modern historical method.

California State University, Long Beach

The village of Puvungna was located on Rancho los Alamitos, and is generally believed to have existed within the vicinity of CSULB. Native American informants pointed out a shell midden beside the spring near the old Rancho Los Alamitos ranch house and informed Bernice Eastman Johnston this was the site of Puvungna. Both Harrington and local historians regarded this as the site of Puvungna as described by Boscana and Reid. The site was later recorded as CA-LAN-306. From Harrington's time until the 1970s, this was generally regarded as the site of Puvungna, even appearing labeled as such in historical maps.

Over the course of the 1970s, CSULB and the surrounding community developed most of the remaining undeveloped land on and surrounding the university campus. The Rancho Los Alamitos Adobe became completely surrounded by a gated community. While visitors can still

[5] Variants of the name include Puvungna, Puvunga, Puvu-ngna, and Povuu'ngna. The ethnographic village is referred to as "Puvungna" while the historic district NRHP-listing is referred to as "Puvunga."

visit site CA-LAN-306 next to the adobe, they can only do so during specific times and under conditions set by Rancho Los Alamitos and the gated community that surrounds it. The 22 acres of site CA-LAN-235 west of Earl Warren Drive is therefore often seen as the only part of Puvungna that remains undeveloped.

By 1993, CA-LAN-235 was listed on the National Register of Historic Places (NRHP), and the 22-acre undeveloped portion of the site was considered a center of religious devotion. However, in that year, CSULB initiated plans to develop the property. A Juaneño woman named Lillian Valenzuela Robles became one of the leaders in the opposition to construction on the 22 acres. CSULB abandoned plans to develop the 22 acres in 1995. Robles shaped ceremonial practice at Puvungna as it exists today. In 1997, Robles initiated the Ancestor Walk—a multi-county vehicular pilgrimage visiting several sites in San Diego, Orange, and Los Angeles Counties culminating at the 22-acre site. Later, she invited Bear Dancers to perform the Bear Dance at the conclusion of the Ancestor Walk. The Ancestor Walk was held at CA-LAN-235 for the 22nd consecutive year in 2019. Today, those who take part in the Ancestor Walk pilgrimage and the Bear Dance include not only Juaneño and Gabrielino, but also many Native Americans from other tribal backgrounds. Their numbers even include those whose tribal origins lay outside California. An estimated 500 people attended the Ancestor Walk and Bear Dance in 2019.

Previous Archaeological Investigations at CA-LAN-234 and CA-LAN-235

As described above, the western portion of the project site is within the mapped boundary of site CA-LAN-235, which in turn is a contributor to the Puvunga Indian Village Historic District, currently listed on the NRHP. The following discussion provides a summary of the previously recorded investigations on the boundaries and vertical extent of CA-LAN-234 and CA-LAN-235 as it relates to the project site.

Archaeological sites CA-LAN-234 and CA-LAN-235 were initially recorded as two discrete and separate archaeological sites by CSULB archaeologist Keith Dixon in 1960. Dixon did not excavate at the sites but rather documented what he could see on the ground's surface. Dixon's locational descriptions are based on buildings and infrastructure that existed at CSULB in 1960. At that time, little was developed in the portion of the university where the project site is located. Site CA LAN-234 was recorded as a scatter of shell and chipped stone south of today's Beach Drive. Site CA LAN-235 consisted of another scatter of shell and chipped west of existing residence halls and north of Beach Drive, encompassing just over 1.11 acres at the time it was recorded.

In 1972, a human burial was uncovered at CA-LAN-235. Excavations indicate that the archaeological deposit is less than 60 cm deep in that location. Dixon's site map shows the burial beside Earl Warren Drive north of its intersection with what is now Beach Drive. This would place the original burial location south of today's Parking Lot G2 (formerly Parking Lot 20) and directly west of Earl Warren Drive from Building A, within 20 meters of the southwest corner of the project site.

Subsequent studies have led to expanding the boundaries of both CA-LAN-234 and CA-LAN-235 such that they are practically a single large site separated only by Beach Drive. In 1974, Dixon nominated it to the NRHP as contributors to a historic district, and the two have subsequently often been treated as a single archaeological site, CA-LAN-234/235. Neither site was evaluated for their NRHP eligibility as individual properties. Dixon's original nomination did not include a detailed application of the four criteria evaluation under the NRHP. However, a page in the

updated site forms for CA-LAN-234 headed “Puvunga Indian Village Sites” gives the following rationale for listing the district on the National Register under all four criteria:

National Register Criteria of Evaluation: (Opinion)

- *Item 1 (A) – EVENTS – Moderate: development of Gabrielino religion*
- *Item 2 (B) – PERSONS – Minor: legendary deities [sic]*
- *Item 3 (C) – TYPE AND PERIOD – Moderate: Indian village site*
- *Item 4 (D) – INFORMATION YIELD – Strong potential*

In 1974, archaeologist N. Nelson Leonard expanded the site boundary of CA-LAN-234 to the south, extending it into the VA property. In 1977, Dixon mapped CA-LAN-235 once more, with the boundaries of the archaeological site area encompassing approximately 27.55 acres.

However, subsurface archaeological testing and monitoring between 1978 and 1986 have further refined the subsurface site boundaries of CA-LAN-234 and CA-LAN-235, and generally decreased the known site boundary. CA-LAN-235 was encountered at the location of a CSULB field school, described by Altschul, and he mentions they dug through the buried surface of the 1960s-era parking lot and encountered intact shell midden deposits (Altshul 1994). This appears to indicate that soil was imported to the site and the 1960s parking lot was buried rather than removed. One area in the northeast portion of the Bellflower Parcel was found not to have any archaeological deposits and was removed from the site boundary as recorded in the NRHP.

In 2000, archaeologists Matthew Boxt and Mark Raab published radiocarbon dates obtained from four shells during SRS’s excavations in 1980. All four samples were obtained at depths of 30 to 80 cm. The dates range over a very broad period from cal. 1,640 B.C. to cal. 70 A.D. However, these are just four very widely spaced dates from one unit at a large archaeological site, and whether these dates accurately represent occupation in that part of the archaeological site remains to be seen. Additionally, it is unknown whether that location is representative of the rest of the archaeological site.

Very few archaeological studies have been conducted at CA-LAN-234 after 1986. The only archaeological work that has been conducted on CSULB property within the boundaries of CA-LAN-234 between 1986 and 2019 is a study conducted by Carl Lipo, CSULB Professor of Anthropology, for the construction of a vault for the reburial of human remains. The reinterred remains were recovered from the Los Altos Site (CA-LAN-270), a Late Prehistoric village site with associated burials encountered near the intersection of Bellflower Boulevard and Los Coyotes Diagonal, south of Beach Drive. CSULB is in the process of updating the district record for CA-LAN-234 based on Lipo’s findings.

Geoarchaeological Analysis

The landform on which CSULB was established is a hill that rises over the surrounding landscape to a maximum elevation of approximately 80 feet above mean sea level. The project area partially overlaps the extreme northwestern edge of this hill. The Geologic Map of California designation dates the surface geology to the Pleistocene epoch, which typically predates human activity on the North American continent. The California Geologic Survey Map of the Long Beach 30’ x 60’ Quadrangle indicates that the project area is situated on old shallow marine deposits (Qom). The Qom landform is described as “poorly sorted, moderately permeable, reddish-brown, interfingered strandline, beach, estuarine and colluvial deposits composed of siltstone, sandstone, and conglomerate. These deposits rest on the now emergent wave cut abrasion platforms preserved

by regional uplift" along the Newport-Inglewood Fault Zone (Saucedo et al. 2016). North of the landform, the flatlands surrounding Bouton Creek are mapped as Quaternary alluvium of the San Gabriel River watershed. Quaternary alluvium is among the most recent geologic deposits in the Long Beach area, and consists of river- and creek-born gravels, sand, silt, and clay. These deposits are typically less than 10,000 years in age, dating to the Holocene epoch.

Both the soils and geologic mapping point to the conclusion that the landform that the project area is located on predates human occupation of California and, therefore, is too old to reasonably contain deeply buried archaeological deposits (i.e., the project area has low geoarchaeological sensitivity). This suggests that shell and other artifacts (both historic and prehistoric), consistently noted by prior archaeological surveys at the surface across much of the CSULB campus, are associated with imported sediments (fill) and are not necessarily the result of manufacture and discard of artifacts at the location where they were recorded. However, the surface of the buried native landform (i.e., the 2B horizon) below the fill horizons does have the potential for harboring buried archaeological deposits. Given the age of the landform, these buried deposits, if present, would not be expected to extend to any significant depth. The soils series description for the project area notes that the maximum depth of the surficial fill sediments is approximately 50 centimeters (cm).

Based on a review of existing geologic, soils, geotechnical, and archaeological reports, it is not possible to define the specific stratigraphic profile and evolution of the current project site. However, a general stratigraphic profile and landform evolutionary history is apparent for the project area, which informs the potential for encountering intact archaeological deposits. All evidence suggests that the project area is situated on an uplifted Pleistocene marine landform with substantial soil development at the surface. This landform is capped with imported fill and disturbed/redeposited native sediments of variable depths, but generally between 30 and 100 cm deep. These disturbed upper deposits contain variable amounts of marine shell, the source of which has not been adequately demonstrated. Naturally occurring shell is associated with the estuarine deposits located in the flatlands to the north (downslope) of the project area and the Pleistocene marine deposits underlying the project area. In addition, the various archaeological sites that have been recorded around the CSULB campus have been documented as containing human-processed shell.

3.1.2 Regulatory Setting

Cultural resources in California are protected by a number of federal, state, and local regulations, statutes, and ordinances. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. State and federal laws use different terms for cultural resources. California state law discusses significant cultural resources as "historical resources," whereas federal law uses the terms "historic properties" and "historic resources." In all instances where the term "resource" or "resources" is used, it is intended to convey the sense of both state and federal law.

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the National Register of Historic Places (NRHP) to recognize resources associated with the country's history and heritage. The NRHP is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service (NPS) and includes buildings, structures, sites, objects, and districts

that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Eligibility for in the NRHP is addressed in National Register Bulletin (NRB) 15: How to Apply the National Register Criteria for Evaluation. NRB 15 states that in order to be eligible for the National Register, a resource must both: (1) be historically significant, and (2) retain sufficient integrity to adequately convey its significance.

Significance is assessed by evaluating a resource against established eligibility criteria. A resource is considered significant if it satisfies any one of the following four NRHP criteria:[6]

- Criterion A (events): associated with events that have made a significant contribution to the broad patterns of our history;
- Criterion B (persons): associated with the lives of significant persons in our past;
- Criterion C (architecture): embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction;
- Criterion D (information potential): has yielded or may be likely to yield, information important in prehistory or history.

Once significance has been established, it must then be demonstrated that a resource retains enough of its physical and associative qualities – or *integrity* – to convey the reason(s) for its significance. Integrity is best described as a resource's "authenticity" as expressed through its physical features and extant characteristics. Generally, if a resource is recognizable as such in its present state, it is said to retain integrity, but if it has been extensively altered then it does not. Whether a resource retains sufficient integrity for listing is determined by evaluating the seven aspects of integrity defined by NPS:

- Location (the place where the historic property was constructed or the place where the historic event occurred);
- Setting (the physical environment of a historic property);
- Design (the combination of elements that create the form, plan, space, structure, and style of a property);
- Materials (the physical elements that were combined or deposited during a particular period of time and in a particular manner or configuration to form a historic property);
- Workmanship (the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory);
- Feeling (a property's expression of the aesthetic or historic sense of a particular period of time);

[6] Some resources may meet multiple criteria, though only one criterion needs to be satisfied for NRHP eligibility.

- Association (the direct link between an important historic event/person and a historic property).

Integrity is evaluated by weighing all seven of these aspects together and is ultimately a "yes or no" determination – that is, a resource either retains sufficient integrity, or it does not.[7] Some aspects of integrity may be weighed more heavily than others depending on the type of resource being evaluated and the reason(s) for the resource's significance. Since integrity depends on a resource's placement within a historic context, integrity can be assessed only after it has been concluded that the resource is in fact significant.

State

California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5

Section 21084.1 of the California Public Resources Code (PRC) states that for purposes of CEQA, "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment"[8]

This necessitates a two-part inquiry: first, it must be determined whether a given project involves a historical resource, and if it does, a determination must be made as to whether the project may result in a "substantial adverse change in the significance" of that historical resource.

To answer these questions, guidance relating to historical resources has been formally codified as Section 15064.5 of the CEQA Guidelines, which define a "historical resource" as any one of the following, for purposes of CEQA compliance:[9]

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR.

- A resource included in a local register of historical resources, or identified as significant in a qualified historical resource survey, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrate that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR.

Once it has been determined that a historical resource is present, it must then be determined whether the project may result in a "substantial adverse change" to that resource. Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource will be

[7] Derived from NRB 15, Section VIII: "How to Evaluate the Integrity of a Property."
[8] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.
[9] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.

materially impaired."[10] The significance of a historical resource is materially impaired when a project:

a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resources that convey its historical significance and that justify its inclusion in, or eligibility for, the CRHR; or

b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the PRC of its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project established by a preponderance of evidence that the resource is not historically or culturally significant; or

c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for the purposes of CEQA.

CEQA requires a lead agency to identify measures to mitigate significant adverse impacts to historical resources. The CEQA Guidelines state that "the lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures" deemed prudent and feasible."[11]

California Public Resources Code Section 5024.5

PRC 5024.5 states: "(a) No state agency shall alter the original or significant historical features or fabric, or transfer, relocate, or demolish historical resources on the [agency's] master list…" This law also obligates State agencies to adopt prudent and feasible measures that will eliminate or mitigate any potential adverse effects a proposed project may have upon a listed historical resource.

PRC 5024 further states:

f) Each state agency shall submit to the State Historic Preservation Officer for comment documentation for any project having the potential to affect historical resources listed in or potentially eligible for inclusion in the National Register of Historic Places or registered as or eligible or registration as a state historical landmark.

California Register of Historical Resources

The CRHR is an authoritative guide used to identify, inventory, and protect historical resources in California. Established by an act of the State Legislature in 1998, the CRHR program encourages public recognition and protection of significant architectural, historical, archaeological, and cultural resources; identifies these resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under the CEQA.

The structure of the CRHR program is similar to that of the NRHP, though the former more heavily emphasizes resources that have contributed specifically to the development of California. To be

[10] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.
[11] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.

eligible for the CRHR, a resource must first be deemed significant under one of the following four criteria, which are modeled after the NRHP criteria listed above:

- Criterion 1 (events): associated with events or patterns of events that have made a significant contribution to the broad patters of local or regional history, or the cultural heritage of California or the United States;

- Criterion 2 (persons): associated with the lives of persons important to local, California, or national history;

- Criterion 3 (architecture): embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values;

- Criterion 4 (information potential): has yielded, or has the potential to yield, information important in prehistory or history of the local area, state, or the nation.

Mirroring the NRHP, the CRHR also requires that resources retain sufficient integrity to be eligible for listing. A resource's integrity is assessed using the same seven aspects of integrity used for the NRHP. However, since integrity thresholds associated with the CRHR are generally less rigid than those associated with the NRHP, it is possible that a resource may lack the integrity required for the NRHP but still be eligible for listing in the CRHR.

Certain properties are automatically listed in the CRHR, as follows:[12]

- All California properties that are listed in the NRHP;

- All California properties that have formally been determined eligible for the NRHP (by the State Office of Historic Preservation);

- All California Historical Landmarks numbered 770 and above; and

- California Points of Historical Interested which have been reviewed by the State Office of Historic Preservation and recommended for listing by the State Historical Resources Commission.

Resources may be nominated directly to the CRHR. State Historic Landmarks #770 and forward are also automatically listed in the CRHR. There is no prescribed age limit for listing in the California Register, although guidelines state that sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with a resource.

California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097

California Health and Safety Code Section 7050.5, and PRC Sections 5097.94 and 5097.98 outline procedures to be followed in the event human remains are discovered during the course of California projects. If human remains are encountered, all work must stop at that location and the County Coroner must be immediately notified and advised of the finding. The County Coroner would investigate "the manner and cause of any death" and make recommendations concerning

[12] California Public Resources Code, Division 5, Chapter 1, Article 2, Section 5024.1

treatment of the human remains. The County Coroner must make their determination within two working days of being notified. If the human remains are determined to be Native American, the County Coroner shall contact the California Native American Heritage Commission. The Commission would in turn "…immediately notify those persons it believes to be most likely descended from the deceased Native American." The descendants would then inspect the site and make recommendations for the disposition of the discovered human remains. This recommendation from the most likely descendants may include the scientific analysis of the remains and associated items.

California Public Resources Code Sections 5097.5 and 5097.7

PRC Section 5097.5 as amended, and PRC Section 5097.7, strengthens existing State law regarding criminal penalties and restitution for crimes of archaeological site vandalism, theft of archaeological materials or artifacts in curation facilities, and damages to historic buildings and other cultural properties on State and local government lands. The amendment and new section closely follow federal law, specifically the Archaeological Resources Protection Act of 1979.

Local

The City of Long Beach administers a local historic preservation program for historic and cultural resources within the city limits. This program includes mechanisms for designating individual properties (Historic Landmarks) and concentrations of resources (Historic Districts) at the local level. While CSULB is located within the Long Beach city limits, it is an entity of the CSU, which is a constitutionally created state agency, and is therefore not subject to local government planning and land use plans, policies, or regulations. For this reason, the campus is not subject to local criteria or designations pertaining to historical resources, if any. Notwithstanding, there are no local historic landmarks or districts located within the boundaries of the CSULB campus (City of Long Beach n.d.-a; n.d.-b).

3.1.3 Environmental Impact Analysis

3.1.3.1 Methodology

As discussed above under 3.1.2 Regulatory Setting, California PRC Section 21084.1 and CEQA Guidelines Section 15064.5 serve as the basis for this analysis, which necessitates a two-part inquiry: first, it must be determined whether a given project involves a historical resource, and if it does, a determination must be made as to whether the project may result in a "substantial adverse change in the significance" of that historical resource.

Built Historical Resources

At the time the 2008 Campus Master Plan Update was prepared, Hillside College, including the Hillside Office/Commons building, did not meet the age threshold for a potential historic resource, and, therefore, was not evaluated for historical significance at the time the 2008 EIR was prepared. It is not listed in the California Historical Resource Inventory database. The building, which is proposed to be demolished as part of the project, is now 50 years old and was therefore evaluated in terms of its potential historical significance for the current proposed project.

The Historical Resource Assessment (Appendix A) conducted for the proposed project included research, documentation, and field visits. Field visits to Hillside College were conducted on July 18, 2019 and August 13, 2019 to assess existing conditions and document all buildings and site/landscape features with digital photographs. Research materials were culled from the

following sources: the CSULB Library, including its Special Collections and University Archives; the Long Beach Public Library; the Los Angeles Public Library; the archives of the Press-Telegram, the Los Angeles Times, and other local periodicals; archived building records and construction documents provided by the CSULB Office of Physical Planning and Sustainability; technical bulletins published by the NPS and the California Office of Historic Preservation; and various online repositories, architectural books and reference materials.

The Historical Resource Assessment conducted for the proposed project focuses on a specific area of Hillside College, originally called Residence Hall Development Program Phase II, because this area was identified as a potentially eligible historic district in a campus-wide historic resources survey (ARG 2020). The district consists of Residence Halls A, B, C, D, E, F, and G (the existing Hillside Office/Commons building), and the dining hall. Hillside College, as evaluated in the Historic Resource Assessment, includes the portion of the complex that was planned, designed, and constructed as a singular unit between 1966 and 1969. Los Cerritos Hall and Los Alamitos Hall are dormitory buildings that sit adjacent to the district, but these two buildings were constructed well before the rest of the district and do not share the same architectural and contextual characteristics from which the district's significance is derived. Moreover, they do not appear to be eligible for listing in the National Register or California Register.

International House (1987) is also adjacent to the district, but its construction significantly postdates the district. Like Los Cerritos and Los Alamitos Halls, International House was planned, designed, and built independently of the historic district and reads as such. It has a relatively late construction date (1987), and there is insufficient evidence to indicate that it has "exceptional importance" as enumerated by National Register Criterion Consideration G. It is also not a part of the district, and does not appear to be eligible for listing in the National Register or California Register.

Archaeological Resources

A pedestrian archaeological field survey was conducted on October 18, 2019, to determine whether any archaeological resources are present in the project site. The field survey covered the entire project area that would be subject to ground-disturbing activities, including that portion of CA-LAN-235 which extends into the project area. No evidence of CA-LAN-235 was observed on the ground surface where the archaeological site overlaps with the project site. A small amount of fragmentary marine shell was observed on the east lawn outside the recorded boundary of CA-LAN-235, but no artifacts were observed. However, because the ground surface was obscured by paving, buildings, and lawns, the field survey was deemed inconclusive.

Because the field survey was inconclusive, limited subsurface probes using a combination of shovel test pits and augers, were conducted within the project site between November 5 and November 8, 2019. The intent of the probes was to identify the locations of possibly intact subsurface archaeological deposits within unpaved portions of the project area that were not visible on the surface due to the extensive landscaping. The test probes were set out in a rough grid pattern meant to encompass the entire project area, including but not limited to CA-LAN-235. Locations which were believed least likely to have been previously impacted by either utilities or other construction were deliberately selected to be tested. The test probes were excavated to a depth below which previous investigations indicate the site should have been found, if it were preserved within the project area. A total of 15 such probes were opened within the project area, nine of which were also located within the recorded boundary of CA-LAN-235. All work was conducted in the presence of Edgar Perez, who is a qualified Gabrielino-Tongva Native American

monitor under contract with CSULB, as required by mitigation measure 2 in Section 3.7 of the 2008 EIR.

Non-destructive methods of subsurface investigation such as ground-penetrating radar were considered for areas that could not be sampled during the Extended Phase I study because they are built or paved over. However, these methods are limited in their detail and unlikely to yield unambiguous data regarding subsurface features, and would provide no data regarding stratigraphy.

3.1.3.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the project would normally have a significant impact on cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;[13]
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5; or,
- Disturb any human remains, including those interred outside of formal cemeteries.

3.1.3.3 Impact Analysis

CR-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

Significant and Unavoidable. The project would result in demolition of the existing 5,700-SF Hillside Office/Commons building and removal of original hardscape including concrete paths immediately adjacent to the Hillside Office/Commons building. Based on the findings of the Historical Resource Assessment, further described below, the Hillside College Residence Hall Complex Historic District (excluding Los Cerritos and Los Alamitos Halls) is eligible for listing in the NRHP and the CRHR under Criterion C/3 at the local level of significance. A resource is considered significant under Criterion C/3 if it embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

Together, the eight buildings, site features, and landscape features comprising Hillside College are considered an excellent example of the Mid-Century Modern architectural and planning principles that dictated the built form of the CSULB campus amid its formative period of development. Its buildings, site features, and landscape features have a synergistic relationship with one another, working in tandem to create a cohesive environment whose whole is greater than the sum of its parts. Through its physical features – including its architectural attributes and its site and landscape feature – the complex is an excellent example of the relationship between architecture and site planning that defined the essence of planning and construction at CSULB, and lent impetus to its physical form and distinctive sense of place.

[13] See the Regulatory Setting (California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5) in this section of the Draft EIR for the definitions of “historical resources” and “substantial adverse change in the significance of an historical resource” under CEQA.

Buildings within the Hillside College Residence Hall Complex Historic District embody the distinctive dialect of Mid-Century Modern architecture that was codified as the prevailing architectural vocabulary of the CSULB campus in the 1963 master plan. This architectural vocabulary was developed by master plan architect Killingsworth to ensure that new development on campus was carried out in a manner that was orderly and cohesive, with the broad goal of creating and nurturing a sense of place. Character-defining features of this dialect of Mid-Century Modern architecture that are expressed in the buildings at the Hillside College Residence Hall Complex include concrete construction; flat roofs; exterior walls composed of Norman face brick, painted concrete, and textured plaster; metal sash windows; covered breezeways between buildings with squared columns and flat roofs (between the existing Hillside Office/Commons building and Building H/Dining Hall); and adherence to a neutral color palette defined by muted shades of cream and red.

All of the buildings open onto a central designed landscape, designed by Edward Lovell, which complements their essential scale, massing, form, and materials. This landscape is a harmonizing element that creates a sense of aesthetic continuity throughout the complex. As such, it underscores the inextricable relationship between buildings and landscape that so strongly characterized Mid-Century Modern architecture and planning, and played a central role in the 1963 campus master plan. It bears mentioning that while the landscape is supportive of the overall setting of the district, it does not, in and of itself, appear to merit consideration as a developed cultural landscape. Its significance is derived from its supporting role in the larger context of the district, not as a resource of significance in its own right.

Finally, the district is notable as a successful example of the collaboration between three notable practitioners/firms – Neptune and Thomas and Associates (project architect), Killingsworth-Brady and Associates (consulting architect), and Edward Lovell (landscape architect). The architectural and landscape features that define the district represent a meeting of the minds between these three practitioners/firms, showing how they demonstrated mastery in their respective practice areas and created an environment that satisfied the key objectives of the 1963 master plan and embodied the aesthetic values of Mid-Century Modern architecture and planning. The complex also won recognition from others within the architectural profession, speaking to the quality of its design. In 1971, shortly after the completion of Hillside College, project architects Donald Neptune and Joseph Thomas were awarded the American Institute of Architects' prestigious Triennial Honor Award for excellence of design for their contributions to the design of Hillside College.

For the above-stated reasons, the Hillside College Residence Hall Complex Historic District is a strong example of a period and type, as a cohesive collection of buildings and landscape features that express the values underpinning Mid-Century Modern architecture and planning. Therefore, the district meets National/California Register Criterion C/3.

Demolition of a single contributor in a historic district does not always constitute a significant and unavoidable impact to a historical resource. A district may contain non-contributing features and elements and still convey its significance, as long as the integrity of the district as a whole is uncompromised. However, in this instance, the demolition of the Hillside Office/Commons building represents the removal of a unique and prominent contributor to the district that is essential in conveying its significance. The district comprises eight contributing buildings. Six of these buildings, Buildings A, B, C, D, E, and F, are nearly identical in appearance and share the same program as residence halls. As discussed previously, the Hillside Office/Commons and dining hall buildings are irregularly shaped one-story buildings and sit at the center of the complex, providing services to residents of the complex. The Hillside Office/Commons building in particular is centrally and prominently located at the front of the district, facing Earl Warren Drive, and in this

way serves as the face of the complex. It is a symmetrical building fronted by a shallow, landscaped entrance court.

The demolition of the Hillside Office/Commons building and construction in its place of two larger buildings would remove a prominent contributor that is visually and programmatically unique among the other contributors of the Hillside College Residence Hall Complex Historic District, while also visually and architecturally congruent. In addition, the proposed project would construct a new two-story, commons building and a new one-story HRL office building. This would effectively create a new, contemporary face of the complex fulfilling the programmatic needs for residential life within Hillside College.

The existing Hillside Office/Commons building is a relatively low-lying building (17 feet tall at its highest point) characterized by its symmetrical massing of a taller central volume flanked by two slightly shorter and set back wings. It has the same brick and plaster material palette as all other contributors in the district. The proposed project would replace the single building with two new buildings, one at a maximum of 38 feet tall (proposed commons building) and the other at 26 feet tall (proposed HRL office building). The entrances to the proposed buildings would face one another within a central courtyard that would be covered with a canopy that extends from the eave line of the proposed commons building, at a height of approximately 25 feet.

The construction of these two new buildings in place of the existing Hillside Office/Commons building materially impairs the significance of the historic district by introducing larger and visually incompatible buildings at the front and center of the complex. The orientation of the proposed buildings, consisting of two buildings facing a central courtyard, changes the spatial qualities and circulation patterns of the original complex. The massing of the proposed buildings is asymmetrical, with a two-story building next to a one-story building with a canopy connecting them, changing the axial symmetry of the complex. Furthermore, the materials of the new buildings, consisting most visibly of steel, glass, and rainscreen cladding, are contemporary in appearance and do not maintain the brick and plaster palette of the rest of the complex.

For these reasons, demolition of the existing Hillside Office/Commons building would diminish the integrity of the historic district in such a way that the district would no longer be eligible for listing in the NRHP or CRHR. The historic district would no longer retain its overall integrity of design, setting, feeling, or association, thus causing material impairment to the significance of the historic district. This would be a significant impact on a historic resource as defined in Section 15064.5 of the CEQA Guidelines.

Implementation of project-specific Mitigation Measures CR-6 and CR-7, which includes archival documentation and digital photographic recordation consistent with the standards of the National Park Service's Historic American Building Survey (HABS) documentation as well as preparation and implementation of an interpretive program for the Hillside College Historic District, would be required to mitigate the significant impact. Nonetheless, demolition of the Hillside Office/ Commons building would result in a significant unavoidable impact to a historical resource as defined in Section 15064.5 of the CEQA Guidelines.

CR-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Less than Significant with Mitigation. The western portion of the project site, including all of the project site within Earl Warren Drive and its median and most of the lawn west of the existing Hillside Office/Commons building, is within the mapped boundary of site CA-LAN-235. As part of

the proposed project, pedestrian and vehicular access in the area would be modified within the portion of the project site that overlaps with site CA-LAN-235 as it is currently mapped. The concrete pathways surrounding the existing Hillside Office/Commons building would be removed and replaced to appropriately serve the new buildings. Additionally, construction activities on Earl Warren Drive would require clearing and grubbing, demolition of existing concrete pavement, excavation of up to two feet in depth below ground surface, grading, and paving. Approximately 0.75 acres of area within Earl Warren Drive would be disturbed. Limited utility trenching for a reclaimed water line would require excavation of 4 to 6 feet in depth below ground surface along the northern section of the northbound lanes of Earl Warren Drive for approximately 270 linear feet.

Site CA-LAN-235 has never been independently evaluated for inclusion in either the CRHR or NRHP. However, Site CA-LA-235 is a contributor to the Puvunga Indian Village Historic District, which is currently listed on the NRHP, and as such, was automatically listed in the CRHR. As discussed above in Section 3.1.1.2, Archaeological Resources, Dixon's original nomination did not include a detailed application of the four criteria evaluation under the NRHP. The following analysis considers the project's potential impacts to the eligibility of the Puvunga Indian Village Historic District through its potential impacts to CA-LAN-235. Potential impacts of the proposed project to the eligibility of the district for inclusion in the NRHP and CRHR are considered related to the district's significance under each criterion, followed by a consideration of the potential impacts of the project on the site and district's integrity.

Under Criterion A/1 (events), CA-LAN-235 is a contributor to the Puvunga Indian Village Historic District, which is "associated with events that have made a significant contribution to the broad patterns of our history", because of Puvungna's importance to the development of Gabrielino religion. The 22-acre undeveloped portion west of Earl Warren Drive has become important to the development of Gabrielino and Juaneño religion over the past approximately 48 years since human remains were discovered on the property in 1972, and particularly in the 40 years since those remains were reinterred within the boundaries of CA-LAN-234. The 22-acre location was the site of further cultural innovation and development in 1995 with the introduction of the Ancestor Walk, a completely new religious ritual but one that is rooted in veneration of the ancestors. Finally, the site is important in the recent introduction of the Bear Dance from northern California to the Los Angeles area.

The project would not impact the significance of CA-LAN-235 as a contributor or the continued eligibility of the Puvunga Indian Village Historic District under Criterion A/1. Construction would be limited to the portion of the site that was previously disturbed for the construction of Earl Warren Drive and the existing Hillside Office/Commons building in 1969 to 1970, before the Puvunga Indian Village Historic District was nominated and added to the NRHP. Implementation of the proposed project would not reduce the importance the site has and has had for Native American religious development. Moreover, the undeveloped 22-acre portion of the site west of Earl Warren Drive would not be temporarily or permanently impacted by the proposed project. Project improvements would be restricted to the portion of the site that is already developed, within and east of Earl Warren Drive. At the end of construction, CA-LAN-235 would be restored to approximately its current state; Earl Warren Drive would be replaced and two new buildings would sit atop the approximate location of the existing Hillside Office/Commons building. The unpaved and undeveloped part of CA-LAN-235 west of Earl Warren Drive would not be paved, built upon, used to stage equipment or materials, or otherwise temporarily or permanently modified. Ceremonial features that exist at the site (such as, but not limited to, fire pits, ancestor poles, dance floor, and decorated trees) would not be impacted. The public's and the tribes' ability to access the property and conduct ceremonies likewise would not be infringed by the project during

construction or operation. Implementation of the proposed project would have no impact to the eligibility of CA-LAN-235 individually or the Puvunga Indian Village Historic District as a whole under Criterion A/1.

Under Criterion B/2 (persons), the Puvunga Indian Village Historic District is listed in the NRHP because it is "associated with the lives of persons significant in our past," in this case, Native American deities and culture heroes. The Puvunga Indian Village Historic District is important in the collective consciousness as the area where Ouiot was cremated and Chinichnich taught, and the site is a symbolic contributor to that district. Moreover, the site has added importance in its connection to latter-day prophets such as Lillian Valenzuela Robles, who, like Chinichnich, took an existing traditional religion and revitalized it by changing it. A human burial was found at CA-LAN-235, which increases its importance to the Native American community, and Lillian Roble's struggle to prevent development of the 22 acres further contributes to the site's contribution to the historic district. During and after project construction, CA-LAN-235 would retain its importance in its connection to gods or culture heroes such as Ouiot and Chinichnich. Project implementation would not impact the site's association with Ouiot, Chinichnich, Robles, or any of the other supernatural beings and prophets who made their careers there. Implementation of the proposed project would have no impact on CA-LAN-235's status as a contributor to the Puvunga Indian Village Historic District, or to the continued eligibility of the Historic District, under Criterion B/2.

For Criterion C/3 (type and period), it has been determined that the Puvunga Indian Village Historic District displays "distinctive characteristics of a type [and] period" as an ethnohistoric Native American village. No portion of the ethnohistoric village that embodies the distinctive characteristics of a type, period, or method of construction has yet been documented at CA-LAN-235. Archaeological work may (or may not) reveal features that embody distinctive characteristics of Gabrielino villages or ceremonial sites of the ethnohistoric era. The relatively new religious structures now found on the site (such as ancestor poles and the dance floor) post-date the 1974 NRHP nomination and are therefore not evaluated or cited for their contribution to the site's eligibility. However, discussions of the Puvunga Indian Village Historic District generally do not discuss buildings, structures, or objects at the three archaeological sites that comprise the district. Instead, such discussions generally revolve around the undeveloped nature of these sites, as contrasted against the urbanized nature of surrounding Long Beach. The proposed project would be limited to the portion of the site that is already disturbed and built upon, and would not impact the undeveloped 22 acres which contribute most strongly to this undeveloped feeling. Accordingly, implementation of the proposed project would have no impact on the eligibility of CA-LAN-235 as a contributor to the Puvunga Indian Village Historic District, or on the continued eligibility of that historic district under Criterion C/3.

Criterion D/4 applies to locations that "have yielded, or may be likely to yield, information important in prehistory or history." It has been determined that the Puvunga Indian Village Historic District has the potential to yield significant archaeological data. Portions of CA-LAN-235 that contain undisturbed archaeological deposits have the potential to contribute archaeological data that, in the context of the historic district, are important to prehistory.

The boundaries of CA-LAN-235 were arbitrarily mapped by Dixon in 1960, 1974, and 1978 based solely on what was visible on the ground surface and what he believed may exist underground. Each time Dixon described the site, he drew a larger site boundary, gradually increasing the site size from 1.11 acres in 1960 to 27.5 acres in 1978. Dixon's most recent recordation appears to have been made after soil was imported to the site to bury an existing parking lot and during the

period when the area was used as an organic garden. Subsequent research has indicated that these boundaries are not only imprecise but are also inaccurate.

Archaeological testing has shown that the soils of the CSULB campus have been disturbed so extensively and for so long that the surface is a poor indication of what lies beneath. Investigations of the various archaeological sites documented across the CSULB campus revealed that at least 15 of the 27 archaeological sites documented within 0.5 mile of the project area are in fact not archaeological sites, but rather are redeposited soil, probably taken from wetlands or archaeological sites, and used as topsoil.

In one particularly notable example, that of CA-LAN-1005, a test unit was excavated in the dark soil which was previously recorded as a midden deposit. Marine shell was encountered, but no artifacts were recovered. Beneath the dark soil, archaeologists found a soil change and a utilities trench, indicating that the utilities trench was dug before the dark soil was deposited on the location. Such soil redeposition destroys the archaeological context of any site it impacts, reducing its data potential.

As discussed in Section 3.1.3.1, Methodology, fifteen limited subsurface probes were opened within the project site. Thirteen probes revealed historic refuse or active utilities to depths of up to 50 cm. A small amount of very fragmentary shell was found in 14 of the 15 probes. One small fragment of what may be chipped stone waste was recovered alongside recent refuse from the top 10 cm of one probe. No other cultural materials were observed in the probes. The top 50 cm of soil throughout most of the project area appeared to be heavily disturbed. It included recent refuse and was very compact, and may have been excavated and recompacted during the construction of Hillside College.

A single isolated artifact alongside recent refuse in a disturbed deposit outside the mapped boundary of the archaeological site was found during the course of the Extended Phase I study that was conducted for the proposed project. Shell found across the entire project site, both within and outside the mapped boundary of the archaeological site, does not appear to be indicative of an archaeological site, and is consistent with redeposited shell found in fill sediments by prior investigations elsewhere in the vicinity. One isolated artifact, but no evidence of an archaeological site, was observed during the probings within the project area. These findings correlate with the tentative profile established in the desktop geoarchaeological study, which indicated that a layer of disturbed, redeposited soil including a small quantity of contemporary artifacts and possibly some prehistoric artifacts, overlies the Pleistocene terrace that predates human occupation of the site. No intact cultural deposits were identified, and the archaeological probing for this study did not indicate that archaeological deposits exist within that portion of the site that overlaps the project area.

The test probes were excavated to a depth below which previous investigations indicate the site should have been found, if it were preserved within the project area. The site form for CA-LAN-235 indicates that the burial that was encountered in 1972 is located approximately 20 meters from the project area. In that excavation, the midden deposits were noted to be within 60 cm (approximately 2 feet) of the ground surface. However, excavations by SRS in the vicinity of the large paved parking lot directly west of Earl Warren Drive, immediately west of the current project site and north of the 1972 burial, did not encounter any archaeological materials. The 1980 excavations extended up to 175 cm below surface and revealed profiles of redeposited sediments with intermixed shell and historic/modern debris, overlying a culturally sterile Pleistocene landform. The archaeological probes conducted for the proposed project also extended well below the 60 cm depth identified in 1972 and did not find intact archaeological deposits. Based on these

findings, it is concluded that no intact archaeological deposits appear to be present within the project site. It is believed that any archaeological deposits that may have existed in the project area were destroyed by the construction of Earl Warren Drive and Hillside College in 1969 to 1970, and their subsequent maintenance. Moreover, it is unclear if an intact archaeological site ever existed within the project area. It is likely that any artifacts and shell were deposited within the project area by historic and contemporary construction and landscaping activities and therefore lack scientific value, although they may retain value for descendant Native American communities. Because no intact archaeological deposits were encountered during the archaeological probing, it is anticipated that no intact deposits exist within the project area. Therefore, it is anticipated that the proposed project would have no impact to the data potential of CA-LAN-235. Therefore, there would be no impact to the eligibility of the Puvunga Indian Village Historic District under Criterion D/4.

The proposed project is not anticipated to impact the eligibility of site CA-LAN-235 or the Puvunga Indian Village Historic District, under any of the four CRHR or NRHP criteria, nor is it anticipated to have a lasting impact on the district's historic integrity. Although unlikely, given the known disturbances associated with the construction and maintenance of Hillside College and Earl Warren Drive, relict intact portions of site CA-LAN-235 may exist within the project area. Such resources are particularly possible in areas that could not be probed, such as beneath the paved surface of Earl Warren Drive. Any such intact archaeological deposits are likely to be significant. Any impacts to significant archaeological deposits may reduce the significance of that portion of CA-LAN-235 that is impacted and thereby impact the eligibility of the Puvunga Indian Village Historic District. Project excavation have the potential to contact or expose, and thereby affect, previously unidentified archaeological resources. This would be a significant impact on an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines.

Mitigation measures discussed in Section 3.7, Archaeological Resources, of the 2008 EIR would be applicable to the proposed project. These mitigation measures are outlined below in Section 3.1.5 and include archaeological and Native American monitoring during earth-moving construction activities; construction crew training; stop work if an inadvertent discovery of archaeological resource occurs; Phase III data recovery, if required; and stop work and notification of the Los Angeles County Coroner's Office if any human skeletal remains are found.

Additionally, due to the sensitivity of the project area and project site overlapping with a NRHP-listed archaeological site, project-specific mitigation measures would be implemented to avoid potential adverse effects on subsurface archaeological deposits. Mitigation Measure CR-8 would require archaeological and Native American monitoring. Mitigation Measure CR-9 would require development of a project-specific cultural resources monitoring and discovery plan in consultation with the State Historic Preservation Officer (SHPO). Mitigation Measure CR-10 would require a limited geoarchaeological trenching program to be implemented after the demolition of the existing buildings and hardscaping, but before construction of the new proposed facilities, in order to (1) confirm that no archaeological deposits are present within the existing building footprints where testing was not possible; and (2) create a master stratigraphy of the project area to verify the stratigraphic conclusions drawn in this report, regarding the redeposition of shell-bearing sediments and emplacement over a culturally sterile Pleistocene landform.

With implementation of the specified Mitigation Measures CR-1 through CR-5 from the 2008 EIR and Mitigation Measures CR-8, CR-9, and CR-10 specific to this project, impacts to archaeological resources as defined in Section 15064.5 of the CEQA Guidelines would be less than significant.

CR-3: Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant. The project site includes the existing Hillside Office/Commons building, which fronts Earl Warren Drive, a two-lane road that provides primary north-south vehicular access to and through the campus. Construction-related disturbance would encompass an area of approximately two acres and be excavated to a maximum depth of ten feet for the proposed commons and HRL buildings, two feet for Earl Warren Drive, and six feet for the reclaimed water line.

In 1972, a human burial was uncovered at CA-LAN-235, south of today's Parking Lot G2 (formerly Parking Lot 20) and directly west of Earl Warren Drive from Building A, within 20 meters of the southwest corner of the project site. Although not anticipated, project-related excavation activities may have the potential to disturb human remains. This would be a significant impact.

Mitigation Measure CR-5, discussed in Section 3.7, Archaeological Resources, of the 2008 EIR and outlined below in Section 3.1.5, would be applicable to the proposed project and is required. Additionally, the proposed project would comply with California Health and Safety Code Section 7050.5 and California PRC Section 5097 which requires that work be suspended in the immediate vicinity of the discovery and the Los Angeles County Coroner be contacted. If the remains are deemed Native American in origin, the Coroner will contact the NAHC and identify a Most Likely Descendant (MLD) pursuant to Public Resources Code Section 5097.98 and California Code of Regulations Section 15064.5. Work may be resumed at the university's discretion but will only commence after consultation and treatment have been concluded. Work may continue on other parts of the project while consultation and treatment are conducted.

With implementation of Mitigation Measure CR-5 required by the 2008 EIR and compliance with California Health and Safety Code Section 7050.5 and California PRC Section 5097, impacts to human remains would be less than significant.

3.1.4 Mitigation Measures

The following mitigation measures from the 2008 EIR are applicable to the proposed project and are required. Mitigation Measure CR-4 below has been modified slightly for this project (as shown with underlined text).

CR-1: All earth moving construction activity will be monitored by a professional archaeologist and Native American monitor. The archaeological monitor will conduct on-site cultural resources sensitivity training (crew education) as outlined below. If subsurface cultural materials are uncovered, construction work in the immediate vicinity will be halted and the emergency discovery procedures described below will be implemented.

CR-2: Prior to the beginning of the earth moving construction activities (including initial grading of vegetation removal), the construction crew shall be informed of the cultural resources values involved and of the regulatory protections afforded those resources. The crew shall also be informed of procedures relating to the discovery of unanticipated cultural resources (as outlined below). The crew shall be cautioned not to collect artifacts, and asked to inform a construction supervisor and the onsite archaeological monitor in the event that cultural remains are discovered during the course of construction. The onsite archaeological and Native American monitor shall

administer supplement briefing to all new construction personnel, prior to their commencement of earth moving construction activities.

CR-3: In the event an archaeological resource is unearthed during excavation activities associated with the project, work shall be stopped immediately and the discovery shall be evaluated by a qualified archaeologist, pursuant to the procedures set forth at CEQA Guidelines Section 15064.5.

CR-4: In an event that a previously unknown archaeological resource is discovered and disturbance to such a resource cannot be avoided, a Phase-III, or "data recovery," phase of investigation will be required, pursuant to CEQA Guidelines Section 15064.5. The Phase-III study will generally consist of a limited scale program of archaeological excavation, radiocarbon dating of organic materials -such as shell midden and faunal remains, laboratory analysis, and report writing designed to assess the importance of the resource in question. Any resources recovered will be properly curated, as appropriate. The Phase III or data recovery plan shall be prepared in consultation with SHPO.

CR-5: If human skeletal remains are found at the project site during earth moving activities such as grading or trenching, work shall be suspended and the Los Angeles County Coroner's Office shall be notified. Standard guidelines set by California law provides for the treatment of skeletal material of Native American origin (California Public Resources Code, Sections 5097.98 et seq.; Health and Safety Code, Section 7050.5 and others). Procedures to be employed in the treatment of human remains are found in, "A Professional Guide for the Preservation and Protection of Native American Remains and Associated Grave Goods," published by the California Native American Heritage Commission.

In addition, the following mitigation measures specific to this project are required to reduce impacts to cultural resources.

CR-6: Prior to project commencement and the demolition of any buildings or site features within the eligible historic district, CSULB shall ensure that documentation of the property is completed in the form of a documentation that shall comply with the *Secretary of the Interior's Standards for Architectural and Engineering Documentation* (NPS 1990). The documentation shall generally follow the HABS Level III requirements and include digital photographic recordation of the Hillside College Residence Hall Complex, a detailed historic narrative report, and compilation of historic research. As part of this process, the as-built plans and associated documents that remain on the property shall be scanned digitally and incorporated into the final documentation package.

Photographic documentation shall include:

- General views of the site and landscape as a whole
- Photographs of each exterior elevation of all eight buildings in the complex
- Photographs of the interior of the building to be demolished (existing Hillside Office/Commons)

The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History (NPS 1983). The original archival-quality documentation shall be offered as donated material to the following entities: Library of Congress, South Central Coastal Information Center at CSU Fullerton, CSULB Special Collections and University Archives, University of California, Santa Barbara Special Collections, Long Beach Heritage, and the Los Angeles Conservancy. Completion of this mitigation measure shall be monitored and enforced by the lead agency.

CR-7: CSULB shall prepare and implement an interpretive program for the Hillside College Historic District. The interpretive program shall focus on the historic district's architectural and developmental legacy, and shall feature interpretative/ commemorative materials:

- On-site display of historic photographs, historic architectural plans and drawings, historic narrative, and other interpretive materials as available and deemed appropriate. These materials will be installed in a publicly-accessible space in the new HRL office or commons building.

- Online display of historic photographs, historic architectural plans and drawings, historic narrative, and other interpretive materials as available and deemed appropriate. These materials will be publicly accessible on the CSULB website, on an existing page dedicated to the history of the University.

- Incorporation of commemorative materials and historical information into regular on-campus orientation and tours for educational purposes.

Completion of this mitigation measure shall be overseen by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History (NPS 1983), and monitored and enforcement by the lead agency.

CR-8: A project-specific cultural resources monitoring and discovery plan (CRMDP) shall be prepared, which shall specify monitoring methods, personnel, and procedures to be followed in the event of a discovery. The monitoring plan shall identify what activities require monitoring, describe monitoring procedures, and outline the protocol to be followed in the event of a find. Criteria shall be outlined, and triggers identified when further consultation is required for the treatment of a find. Key staff shall be identified, and the process of notification and consultation shall be specified within the CRMDP. A curation plan shall also be outlined within the CRMDP. All work shall be conducted under the direction of a qualified archaeological Principal Investigator who meets the Secretary of the Interior's standards for archaeology.

CR-9: Archaeological monitoring shall be conducted by a qualified archaeological monitor who is working under the guidance of an archaeologist who meets the SOI Professional Qualification Standards for Archaeology (48 Federal Register 44738). Native American monitoring shall be conducted by a qualified Native American monitor representing the tribe or tribes traditionally and culturally affiliated with the geographic area of the proposed project. It is recommended that the tribal cultural monitor maintain logs of all activities monitored, and that this documentation be made available to all consulting Native American parties. Ground-disturbing activities include, but are not

limited to, geotechnical boring, boring, trenching, grading, excavating, and the demolition of building foundations. The archaeological monitor shall observe ground-disturbing activities in all areas with potential to contain significant cultural deposits. If discoveries are made during ground disturbing activities, additional work may be required in accordance with the terms specified in the CRMDP.

CR-10: After demolition of the existing facilities and prior to construction of the proposed facilities, a limited geoarchaeological trenching program shall be prepared and implemented in order to verify the stratigraphy conclusions of the Extended Phase I study (that the project area is situated on an uplifted Pleistocene marine landform with substantial soil development at the surface; this landform is capped with imported fill and disturbed/redeposited native sediments of variable depths, but generally between 30 and 100 cm deep; this disturbed fill includes shell and a small quantity of out-of-context historic and prehistoric artifacts). If intact archaeological deposits are encountered during the geoarchaeological testing, additional work may be required in accordance with the terms specified in the CRMDP.

3.1.5 Level of Significance After Mitigation

Built Historical Resources

Mitigation Measures CR-6 and CR-7 would be implemented to record and document the Hillside College Residence Hall Complex and existing Hillside Office/Commons building. However, even with implementation of Mitigation Measure CR-6, demolition of the existing Hillside Office/ Commons building would diminish the integrity of the historic district in such a way that it will no longer be eligible for listing in the NRHP or CRHR, resulting in a substantial adverse change to the historical resource that could not be reduced to a less than significant level. Therefore, implementation of the proposed project would result in a significant and unavoidable impact to the historical resource.

Archaeological Resources

Implementation of Mitigation Measures CR-1 through CR-5 from the 2008 EIR and project-specific Mitigation Measures CR-8, CR-9, and CR-10 would ensure that impacts to archaeological resources during construction would be less than significant.

Human Remains

Implementation of Mitigation Measure CR-5 from the 2008 EIR would ensure that impacts to human remains during construction would be less than significant.

3.1.6 Cumulative Impacts

Table 2-2 in Chapter 2, Project Description, of this Supplemental EIR, includes all the approved or proposed development projects that would occur within the proposed project construction timeframe and located on the CSULB campus or within a one-mile radius of the campus. Construction of the proposed project would result in a significant and unavoidable impact to a historical resource as the existing Hillside Office/Commons building would be demolished. Development of the proposed project with related projects has the potential to result in a cumulative impact if historical resources are present within related project sites. CSULB is currently undergoing a campus-wide identification of historic resources, and none of the buildings listed in Table 2-2 have been identified as historical resources or did not meet the age threshold

for a potential historical resource. As such, the proposed project would not result in a cumulatively considerable impact related to historical resources.

As discussed above, the proposed project would result in less than significant impacts to archaeological resources and human remains with the implementation of mitigation measures. These mitigation measures would ensure that the proposed project's impact in conjunction with the related projects would not be cumulatively considerable. Additionally, related projects in the vicinity would also be required to comply with applicable state, federal, and local regulations concerning cultural resources.

3.2 ENERGY

At the time the certified 2008 Campus Master Plan Update EIR was prepared, specific details related to energy use were not available and environmental impacts were evaluated to the extent possible given the level of project information available at the time. The 2008 EIR included a brief qualitative discussion of energy consumption in Chapter 5.0 as part of the analysis of the Master Plan's significant irreversible effects. The analysis disclosed that energy would be consumed as part of Master Plan implementation during both construction and operation, but would not be considered a wasteful use of resources. Consistent with the current CEQA standard of practice, this section provides a comprehensive, quantitative energy analysis of the current proposed project.

3.2.1 Environmental Setting

Electricity

California consumed approximately 257,268 megawatt hours of electricity in 2017 (U.S. Energy Information Administration 2019a). Approximately 41 percent of electricity was consumed by residential users and 41 percent by commercial users. Industrial users consumed approximately 17 percent of electricity and approximately 1 percent was used to power vehicles. Electricity in the project area is provided by the Southern California Edison (SCE), which serves approximately 180 cities in 15 counties across Central and Southern California. SCE's energy portfolio is made up of approximately 34 percent unspecified sources of power (i.e., electricity from transactions that are not traceable to specific generation sources), 32 percent renewables (wind, solar, eligible hydroelectric, and geothermal), 20 percent natural gas, 8 percent large hydroelectric, and 6 percent nuclear (Southern California Edison 2018). In 2015, SCE delivered approximately 87 billion kilowatt-hours (kWh) of electricity to its 50,000-square-mile service area; this is due, in part, to energy efficiency measures such as LED lightbulb adoption (Southern California Edison n.d.). Demand forecasts for the SCE service area anticipate that approximately 75 billion kilowatt hours of electricity will be used in 2020 (California Public Utilities Commission 2018).

Natural Gas

California consumed approximately 2,188.7 trillion British Thermal Units (btus) of natural gas in 2017 (U.S. Energy Information Administration 2019a). Approximately 37 percent of natural gas was consumed by industrial users, followed by 29 percent for electric power generation, 21 percent for residential, 12 percent for commercial, and 1 percent for vehicle fuel in 2017 (U.S. Energy Information Administration 2019b). Natural gas is currently provided to the project site by the Southern California Gas Company (SoCalGas). According to the 2018 California Gas Report, SoCalGas is expected to provide an average of 2,519,000,000 thousand btus (kBtu) per day by 2022. SoCalGas anticipates total gas demand to decline at an annual rate of 0.74 percent from 2018 to 2035. This decline in throughput demand can be attributed to modest economic growth, California Public Utilities Commission (CPUC) energy efficiency standards mandates and programs, tighter standards created by revised Title 24 Codes and Standards, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (California Gas and Electric Utilities 2018).

Petroleum

California was the fourth largest producer of crude oil among the 50 states in 2017, after Texas, North Dakota, and Alaska, and, as of January 2018, third in oil refining capacity after Texas and Louisiana. In 2018, California produced approximately 169,166 thousand barrels of crude oil

(U.S. Energy Information Administration 2018). In California, approximately 15.1 billion gallons of gasoline and 4.2 billion gallons of diesel, including off-road diesel were sold and consumed in 2015. Approximately 97 percent of all gasoline consumed in California is utilized by light-duty cars, pickup trucks, and sport utility vehicles. Nearly all heavy-duty trucks, delivery vehicles, buses, trains, ships, boats and barges, farm, construction, and heavy-duty military vehicles have diesel engines (California Energy Commission n.d.).

3.2.2 Regulatory Setting

Federal

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 *Federal Register* 62624–63200). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes the following provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum. The United States Environmental Protection Agency is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the Act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in greenhouse gas (GHG) emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as "RFS2" and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.

- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion.

- EISA established new categories of renewable fuel, and set separate volume requirements for each one.

- EISA required the United States Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

State

Warren-Alquist Act

The California Legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the California Energy Commission (CEC). The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.

- The Act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.

- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. In 2005, a second Energy Action Plan was adopted by the CEC and CPUC to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an "update" that examines the state's ongoing actions in the context of global climate change.

Senate Bills 1078 (2002), 107 (2006), X1-2 (2011), 350 (2015), and 100 (2018)

Senate Bill (SB) 1078 established the California Renewables Portfolio Standard (RPS) Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year,

culminating in a 20-percent standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill also required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy. SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20 percent of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) requires all California utilities to generate 33 percent of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20 percent had to come from renewables; by December 31, 2016, 25 percent had to come from renewables; and by December 31, 2020, 33 percent will come from renewables.

SB 350 (2015) expanded the RPS because it requires retail seller and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030, with interim goals of 40 percent by 2024 and 45 percent by 2027.

SB 100 (2018) accelerated and expanded the standards set forth in SB 350 by establishing that 44 percent of the total electricity sold to retail customers in California per year by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of the retail sales of electricity to California. This bill requires that the achievement of 100 percent zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the 60-percent RPS in 2030. Therefore, any project's reliance on non-renewable energy sources would also be reduced.

Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing significant degradation of public health and environmental quality.

Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40 percent below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focus on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources.

California Building Standards

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. The 2016 Title 24 building energy efficiency standards, which became effective on January 1, 2017, further reduce energy used in the state. In general, single-family homes built to the 2016 standards are anticipated to use approximately 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and nonresidential buildings built to the 2016 standards will use an estimated 5 percent less energy than those built to the 2013 standards. The 2016 Title 24 standards are the current applicable building energy efficiency standards, and became effective on January 1, 2017. The 2019 Title 24 standards will continue to improve upon the 2016 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 standards will go into effect on January 1, 2020. Title 24 also includes Part 11, the California Green Building Standards (CalGreen). The CalGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals. The 2016 CalGreen standards became effective on January 1, 2017. The mandatory standards require the following:

- 20-percent mandatory reduction in indoor water use.
- 50-percent diversion of construction and demolition waste from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency.

Integrated Energy Policy Report

The CEC is responsible for preparing integrated energy policy reports that identify emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The CEC's 2018 Integrated Energy Policy Report discusses the state's policy goals of decarbonizing buildings, doubling energy efficiency savings, and increasing flexibility in the electricity grid system to integrate more of renewable energy. Specific to the decarbonizing of building energy, the goal would be achieved by designing future commercial and residential buildings to source their energy almost entirely from electricity in place of natural gas. Regarding the increase in renewable energy flexibility, the goal would be achieved through increases in energy storage capacity within the state, increases in energy efficiency, and adjusting energy use to the time of day when the most amount of renewable energy is being generated. Over time as they are implemented, these policies and trends would serve to beneficially reduce the GHG emissions profile and energy consumption from projects.

State Vehicle Standards

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009-2012 standards resulted in a reduction in approximately 22 percent of GHG emissions compared to emissions from the 2002 fleet, and the 2013-2016 standards resulted in a reduction of approximately 30 percent.

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global-warming gases with requirements for greater numbers of zero-emissions vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 34 percent fewer global-warming gases and 75 percent fewer smog-forming emissions (CARB 2011). Although the focus of the state's vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates established in AB 32. As codified in California Government Code Section 65080, SB 375 requires metropolitan planning organizations (e.g., the Southern California Association of Governments [SCAG]) to include a Sustainable Communities Strategy (SCS) in their Regional Transportation Plan (RTP). The main focus of the SCS is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

Local

Southern California Association of Governments

SCAG's first-ever SCS was included in the 2012-2035 RTP/SCS, which was adopted by SCAG in April 2012. The SCS goals and policies that reduce VMT (and result in corresponding decreases in transportation-related fuel consumption) focus on transportation and land use planning and include building infill projects, locating residents closer to where they work and play, and designing communities with access to high quality transit service. Subsequently, SCAG adopted the 2016-2040 RTP/SCS. The goals and policies of the 2016-2040 RTP/SCS are substantially the same as those in the 2012-2035 RTP/SCS.

SCAG's 2016-2040 RTP/SCS presents a long-term transportation vision through the year 2040 for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. On April 7, 2016, the SCAG Regional Council adopted the 2016-2040 RTP/SCS, the mission of which is "leadership, vision, and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians." The 2016-2040 RTP/SCS includes land use strategies that focus on urban infill growth and walkable, mixed-use communities in existing urbanized and opportunity areas. More mixed-use, walkable, and urban infill development would be expected to accommodate a higher proportion of growth in more energy-efficient housing types like townhomes, apartments, and smaller single-family homes, as well as more compact commercial buildings types. Furthermore, the 2016-2040 RTP/SCS includes transportation investments and land use strategies that encourage carpooling, increased transit use, active transportation opportunities, and promoting more walkable and mixed-use communities which would potentially help to offset passenger VMT.

3.2.3 Environmental Impact Analysis

3.2.3.1 Methodology

Appendix F of the CEQA Guidelines states that the goal of conserving energy implies the wise and efficient use of energy, to be achieved by decreasing overall per capita energy consumption; decreasing reliance on natural gas and oil; and increasing reliance on renewable energy resources. To assure energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy. Energy conservation implies that a project's cost effectiveness be reviewed in terms of energy requirements, not only dollar amount.

The air quality analysis prepared for the proposed project, included in Table 4-1 of Chapter 4, Other CEQA Topics, of this Supplemental EIR, includes a quantification of construction-related carbon dioxide equivalent (CO_2e) emissions using the California Emissions Estimator Model. These emissions were used to estimate construction energy from CO_2e emission factors derived for the CARB GHG emissions inventory. The 2018 Climate Registry indicates that for gasoline fuel, approximately 25.4 pounds of CO_2e are generated per gallon combusted, and for diesel fuel, approximately 29.8 pounds of CO_2e are generated per gallon combusted. The fuel consumption was estimated from the equipment and vehicles that would be employed in construction activities. Diesel engines are installed in heavy-duty off-road construction equipment and on-road haul trucks. Gasoline engines are typically found in passenger vehicles that would be used for construction worker daily commutes.

3.2.3.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the project would normally have a significant impact with respect to energy if it would:

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

- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.2.3.3 Impact Analysis

ENERGY-1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant. The following analysis discusses short-term (construction) and long-term (operational) use of electricity, natural gas, and petroleum.

Electricity

Construction

Construction of the proposed project would require electricity for lighting, construction trailers, and operation of electrically powered hands tools. Electricity to the site would be provided by SCE and it is likely that most electrically powered equipment would connect to the grid. Consumption of

electricity for construction would be minimal and would cease after completion of the proposed project. Electricity use would be minimized to the extent feasible through incorporation of sustainability features and best management practices. Therefore, construction of the proposed project would result in a less than significant impact related to wasteful, inefficient, or unnecessary consumption of electricity.

Operation

The proposed project would be constructed as a Net Zero Energy (NZE) building in which 100 percent of the building's electricity needs on a net annual basis would be supplied by on-site renewable power generation. A total of approximately 400 solar PV panels would be installed on the roofs of the proposed HRL office building and commons building and central courtyard canopy to generate approximately 89 kilowatts of energy. In addition, the campus will seek full Living Building Challenge certification for the buildings, which is a performance-driven design standard for self-sufficient buildings that incorporates design elements that encourage a regenerative built environment, wherein a building generates more energy than it consumes. The proposed project would also seek to achieve a Leadership in Energy and Environmental Design (LEED) Platinum Rating, which is an internationally-recognized green building certification for buildings designed and built to be energy- and resource-efficient. Regardless of how much electricity is consumed on a daily or annual basis, project design features ensure that the proposed project would not result in wasteful, inefficient, or unnecessary consumption of electricity resources. Impacts would be less than significant.

Natural Gas

Construction

Construction activities typically do not require the consumption of natural gas to power equipment or heavy machinery. Natural gas that would be consumed during construction would be negligible and would not result in a significant drain on natural gas resources. Therefore, construction of the proposed project would result in a less than significant impact related to wasteful, inefficient, or unnecessary consumption of natural gas.

Operation

The proposed HRL office and commons buildings would be all electric, including heating, cooling, and hot water systems. The proposed project would not require natural gas consumption, and no natural gas would be used in the two buildings. Therefore, operation of the proposed project would result in no impact related to the wasteful, inefficient, or unnecessary consumption of natural gas.

Petroleum

Construction

Petroleum would be consumed during the demolition, excavation, and construction phases of the proposed project by heavy-duty equipment, which is usually diesel powered. Construction of the proposed project would result in an increased consumption of gasoline and diesel fuels associated with haul trucks, deliveries, and worker commute trips. Table 3.2-1 shows that a one-time expenditure of approximately 26,454 gallons of diesel fuel and 27,676 gallons of gasoline would be needed to construct the proposed project. Petroleum consumption during construction would be typical of urban infill projects and not excessive.

The proposed project would use best practices to eliminate the potential for the wasteful consumption of petroleum. Exported materials (e.g., demolition debris and soil hauling) would be disposed of at the closest facility that accepts such materials, and the proposed project would be required to comply with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes. Therefore, because petroleum use would be minimized to the extent feasible and represents a relatively small amount of fuel consumption, construction of the proposed project would result in a less than significant impact related to wasteful, inefficient, or unnecessary consumption of petroleum.

Table 3.2-1
Construction Petroleum Demand

Source	CO_2 (Metric Tons)	kg/CO_2/Gallon	Gallons
Diesel			
Equipment – Building Construction	185	10.21	18,119
Equipment – Road Construction	76	10.21	7,444
Trucks – Building Construction	6.8	10.21	666
Trucks – Road Construction	2.3	10.21	225
		Total Diesel Consumption	26,454
Gasoline			
Worker Vehicles – Building Construction	218	8.78	24,829
Worker Vehicles – Road Construction	25	8.78	2,847
		Total Gasoline Consumption	27,676

Note: Diesel and gasoline estimates for equipment and worker vehicles during building construction include the construction of the proposed HRL office building and proposed commons building.
Source: Terry A. Hayes Associates Inc. 2019.

Operation

Petroleum consumption during operation of the proposed project would be related to employee and student trips. The project proposes to demolish the existing 5,700-SF Hillside Office/ Commons building and construct two new buildings in its place: a two-story, 8,000-SF commons building and a single-story, 4,500-SF HRL office building. The net change in the number of employees and students utilizing the proposed project in relation to the existing Hillside Office/ Commons building would be negligible since the proposed HRL office and commons buildings would serve the same population the existing facility serves. Petroleum consumption would not substantially increase as a result of the proposed project. Additionally, as vehicle efficiency increases in future years, overall petroleum consumption will be reduced. Therefore, operation of the proposed project would result in a less than significant impact related to wasteful, inefficient, or unnecessary consumption of petroleum.

ENERGY-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. There is no potential for the proposed project to interfere with plans for renewable energy or energy efficiency. The proposed project would seek to achieve an LEED Platinum Rating and the NZE design would supply 100 percent of energy needs on a net annual basis by on-site renewables. The design includes a total of 400 solar photovoltaic panels on the roofs of the two proposed buildings and the central courtyard canopy to generate approximately 89 kilowatts of energy in support of the NZE design. This would be in compliance with state and

local energy goals to increase renewable energy generation and energy efficiency. Therefore, the proposed project would result in no impact related to conflict of obstruction of a state or local plan for renewable energy or energy efficiency.

3.2.4 Mitigation Measures

No mitigation measures are required.

3.2.5 Level of Significance after Mitigation

No mitigation measures are required. The proposed project would result in less than significant impacts without mitigation.

3.2.6 Cumulative Impacts

The geographic context for the analysis of cumulative impacts associated with energy usage is SCE's electricity service area. Operation of the proposed project would not require the consumption of natural gas. Implementation of the proposed project when combined with cumulative development could increase electricity. However, state and local policies are increasingly requiring more efficient use of energy and all sectors of society are responding with more energy efficient devices that overall are anticipated to offset increased demand from increasing population. Furthermore, development emphasis on compact land use and growth patterns that facilitate transit and non-motorized transportation are anticipated to result in less energy consumption. While implementation of the proposed project could result in increased demand for energy, the impact to the energy resources would be negligible. The proposed project would incorporate energy efficient practices and would not result in wasteful or inefficient use of energy. Therefore, the proposed project would not make a cumulatively considerable contribution to impacts related to energy.

3.3 GREENHOUSE GAS EMISSIONS

The certified 2008 Campus Master Plan Update EIR did not address potential impacts to greenhouse gas (GHG) emissions because it was prepared prior to the 2010 amendment to the State CEQA Guidelines requiring the evaluation of environmental impacts related to GHG emissions. Therefore, this section provides a comprehensive analysis of GHG emissions associated with the proposed Housing Administration and Commons Building project.

3.3.1 Environmental Setting

GHG emissions refer to a group of emissions that are generally accepted to affect global climate conditions. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), keep the average surface temperature of the Earth close to 60 degrees Fahrenheit (°F). Without the natural greenhouse effect, the Earth's surface would be about 61°F cooler (California Environmental Protection Agency 2006).

In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), black carbon (the most strongly light-absorbing component of particulate matter emitted from burning fuels such as coal, diesel, and biomass), and water vapor. CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO_2, denoted as CO_2e. CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Table 3.3-1 shows the GWP for various GHGs.

GHG emissions result from both natural and human-influenced activities. Volcanic activity, forest fires, decomposition, industrial processes, landfills, consumption of fossil fuels for power generation, transportation, heating, and cooling are the primary sources of GHG emissions. Without human activity, the Earth would maintain an approximate, but varied, balance between the emission of GHGs into the atmosphere and the storage of GHG in oceans and terrestrial ecosystems. Increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.) has contributed to a rapid increase in atmospheric levels of GHGs over the last 150 years.

Table 3.3-1
Global Warming Potential for Various Greenhouse Gases

Pollutant	Lifetime (Years)	Global Warming Potential (20-Year)	Global Warming Potential (100-Year)
Carbon Dioxide (CO_2)	--	1	1
Methane (CH_4)	12	21	25
Nitrous Oxide (N_2O)	114	310	298
Nitrogen Trifluoride	740	Unknown	17,200
Sulfur Hexafluoride (SF_6)	3,200	23,900	22,800
Perfluorocarbons (PFCs)	2,600-50,000	6,500-9,200	7,390-12,200
Hydrofluorocarbons (HFCs)	1-270	140-11,700	124-14,800

/a/ Lifetime refers to the approximate amount of time it would take for the anthropogenic increment to an atmospheric pollutant concentration to return to its natural level as a result of either being converted to another chemical compound or being taken out of the atmosphere via a sink.

/b/ The United States primarily uses the 100-year GWP as a measure of the relative impact of different GHGs. However, the scientific community has developed a number of other metrics that could be used for comparing one GHG to another. These metrics may differ based on timeframe, the climate endpoint measured, or the method of calculation. For example, the 20-year GWP is sometimes used as an alternative to the 100-year GWP. Just like the 100-year GWP is based on the energy absorbed by a gas over 100 years, the 20-year GWP is based on the energy absorbed over 20 years. This 20-year GWP prioritizes gases with shorter lifetimes, because it does not consider impacts that happen more than 20 years after the emissions occur. Because all GWPs are calculated relative to CO_2, GWPs based on a shorter timeframe will be larger for gases with lifetimes shorter than that of CO_2, and smaller for gases with lifetimes longer than CO_2.

Source: CARB n.d.

State

The primary effect of rising global concentrations of atmospheric GHGs is an increase in the average global temperature of approximately 0.2 degrees Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming is likely to occur over the next century given the expected increase in global atmospheric GHG concentrations from innumerable sources of GHG emissions worldwide (including from economically developed and developing countries and deforestation (USEPA 2009).

Adverse impacts from global climate change worldwide and in California could include:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (USEPA 2009);

- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets (Intergovernmental Panel on Climate Change 2013);

- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (Intergovernmental Panel on Climate Change 2013);

- Declining Sierra Mountains snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years (California Environmental Protection Agency 2006);

- Increasing the number of days conducive to ozone formation (e.g., clear days with intense sun light) by 25 percent to 85 percent (depending on the future temperature scenario) in high ozone areas located in the Southern California area and the San Joaquin Valley by the end of the 21st Century (California Environmental Protection Agency 2006); and

- Increasing the potential for erosion of California's coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level (California Environmental Protection Agency 2006).

Table 3.3-2 shows GHG emissions from 2008 to 2017 in California. California's GHG emissions have declined since 2008. In 2017, statewide emissions from routine emitting activities were 63 million metric tons of CO_2e ($MMTCO_2e$) lower than 2007 levels. Transportation emissions declined due to increased engine efficiency as the aging vehicle fleet turns over, as well as in response to new and updated GHG rules and regulations implemented by the State. Emissions from the electricity sector dropped due to increases in the availability of renewable energy. For the first time since California started to track GHG emissions, California used more electricity from zero-GHG sources (for the purpose of the GHG inventory, these include hydro, solar, wind, and nuclear energy) than from GHG-emitting sources for both in-state generation and total (in-state plus imports) generation in 2017 (California Air Resources Board 2019a). Of note, between October 23, 2015 and February 18, 2016, an exceptional natural gas leak event occurred at the Aliso Canyon natural gas storage facility that resulted in unexpected GHG emissions of considerable magnitude. The exceptional incident released approximately 109,000 metric tons of CH_4, which equated to approximately 1.96 $MMTCO_2e$ of unanticipated emissions in 2015 and an additional 0.52 $MMTCO_2e$ in 2016. According to the California Air Resources Board (CARB), these emissions will be mitigated in the future through projects funded by the Southern California Gas Company based on legal settlement and are presented alongside, but tracked separately from, routine inventory emissions (CARB 2016).

Table 3.3-2
California Greenhouse Gas Emissions Inventory Trend

Sector	CO_2e Emissions (Million Metric Tons)									
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Electricity Generation (In State)	55	54	47	41	51	50	52	50	42	39
Electricity Generation (Imports)	66	48	44	47	45	40	37	34	26	24
Transportation	182	175	170	167	166	166	167	171	173	174
Industrial	100	98	102	101	102	104	105	103	101	101
Commercial	18	19	20	21	21	22	21	22	23	23
Residential	31	31	32	33	31	32	27	28	29	30
Agriculture and Forestry	35	33	34	34	35	34	35	34	34	32
Emissions Total	**487**	**457**	**449**	**444**	**451**	**448**	**445**	**441**	**429**	**424**

Source: CARB 2019b

Local

CSULB developed and published a Climate Action Plan in 2014 that estimated emissions associated with students, faculty, and staff commuting in 2010. Table 3.3-3 shows that commuting accounted for the majority of GHG emissions in 2010, followed by purchased electricity and natural gas combustion.

Table 3.3-3
CSULB GHG Emission Source Quantities and Percentages, 2010

CSULB GHG Sources	**CO_2e (Metric Tons)**	**Percentage of Total**
Student Commuting	31,580	53%
Purchased Electricity	13,340	22%
Natural Gas Combustion	6,050	10%
Faculty and Staff Commuting	4,460	7%
Landfill Waste	1,480	2%
Refrigerant Emissions	1,360	2%
Air Travel	1,270	2%
Fleet Fuels	390	1%
Total 2010 GHG Emissions	**59,930**	**100%**

Source: CSULB 2014.

3.3.2 Regulatory Setting

There are many federal, state, regional, and local regulations and policies related to climate change and GHG emissions. The following list is not designed to be a comprehensive list of regulations and policies, and is focused on select regulations and policies that are pertinent to CSULB and the proposed project.

Federal

Supreme Court Ruling

The U.S. Supreme Court ruled in *Massachusetts vs. Environmental Protection Agency, 127 S. Ct. 1438 (2007)*, that CO_2 and other GHGs are pollutants under the Clean Air Act (CAA), which the United States Environmental Protection Agency (USEPA) must regulate if it determines they pose an endangerment to public health or welfare. On December 7, 2009, the USEPA Administrator made two distinct findings: 1) the current and projected concentrations of the six key GHGs in the atmosphere (i.e., CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) threaten the public health and welfare of current and future generations; and 2) the combined emissions of these GHGs from motor vehicle engines contribute to GHG pollution which threatens public health and welfare.

On June 23, 2014, the U.S. Supreme Court ruled in *Utility Air Regulatory Group. vs. EPA* that the USEPA exceeded its statutory authority under the CAA when it determined that stationary source emissions of GHGs would trigger permitting obligations under the Prevention of Significant Deterioration (PSD) program and Title V of the CAA. The Court, however, upheld those portions of USEPA's rulemaking that require a source to apply best available control technology (BACT) to GHG emissions where the source would otherwise trigger PSD permitting on account of its emissions of other pollutants. The Supreme Court's decision was limited to USEPA's regulation of GHG emissions under the PSD and Title V provisions of the CAA, and it left unanswered other questions regarding USEPA's permitting and BACT authority under the PSD program, and the USEPA's efforts to regulate GHG emissions from stationary sources.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 includes several key provisions that focus on increasing energy efficiency and the availability of renewable energy, which in turn reduce GHG emissions. First, this Act sets a Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel by 2022.[14] Second, this Act increases Corporate Average Fuel Economy Standards to require a minimum average fuel economy of 35 miles per gallon for the combined fleet of cars and light trucks by 2020. Third, this Act includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.

[14] According to the United States Energy Information Administration, 36 billion gallons of fuel represents approximately 26 percent of current gasoline consumption.

State

Energy Efficiency Standards for Residential and Nonresidential Buildings

Located in Title 24, Part 6 of the California Code of Regulations and commonly referred to as "Title 24," these energy efficiency standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods (California Energy Commission 2015). The California Energy Commission adopted the 2008 changes to the Building Energy Efficiency Standards to respond to the mandates of Assembly Bill (AB) 32 and to pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs. The most recent update to Title 24 is the 2016 Standards which improve upon the 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2016 Standards went into effect on January 1, 2017. The Standards are updated on an approximately three-year cycle.

Senate Bill 1078, Senate Bill 107, and Executive Order S-14-08 (Renewables Portfolio Standard)

Signed on September 12, 2002, Senate Bill (SB) 1078 required California to generate 20 percent of its electricity from renewable energy by 2017. SB 107, signed on September 26, 2006, changed the due date for this goal from 2017 to 2010, which was achieved by the state. Signed on November 17, 2008, Executive Order (E.O.) S-14-08 established a Renewables Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.

Executive Order S-3-05

On June 1, 2005, E.O. S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

E.O. S-3-05 calls for the Secretary of California Environmental Protection Agency to be responsible for coordination of state agencies and progress reporting. A recent California Energy Commission report concludes, however, that the primary strategies to achieve this target should be major "decarbonization" of electricity supplies and fuels, and major improvements in energy efficiency (California Energy Commission 2011).

In response to E.O. S-3-05, the Secretary of California Environmental Protection Agency created the Climate Action Team (CAT). California's CAT originated as a coordinating council and included the Secretaries of the Natural Resources Agency and the Department of Food and Agriculture, and the Chairs of the CARB, Energy Commission, and Public Utilities Commission. The original council was an informal collaboration between the agencies to develop potential mechanisms for reductions in GHG emissions in the State of California.

Senate Bill 1 and Senate Bill 1017 (Million Solar Roofs)

SB 1 and SB 1017, enacted in August 2006, set a goal to install 3,000 megawatts of new solar capacity by 2017 – moving the state toward a cleaner energy future and helping lower the cost of solar systems for consumers. The Million Solar Roofs Program is a ratepayer-financed incentive program aimed at transforming the market for rooftop solar systems by driving down costs over time. It provides up to $3.3 billion in financial incentives that decline over time.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

In September 2006, the California Global Warming Solutions Act of 2006, also known as AB 32, was signed into law. AB 32 focuses on reducing GHG emissions in California and requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. CARB initially determined that the total statewide aggregated GHG 1990 emissions level and 2020 emissions limit was 427 $MMTCO_2e$. The 2020 target reduction was estimated to be 174 $MMTCO_2e$.

To achieve the goal, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB 32 is to limit 2020 emissions to the equivalent of 1990, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. SB 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the state.

AB 32 charges CARB with the responsibility of monitoring and regulating sources of GHG emissions in order to reduce those emissions. On June 1, 2007, CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills (CARB 2007). On October 25, 2007, CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing PFCs emissions from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing SF_6 emissions from the non-electricity sector.

The CARB AB 32 Scoping Plan (Scoping Plan) contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by CARB with input from CAT and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the state economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. Key approaches for reducing GHG emissions to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable electricity standard of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout the state, and pursuing policies and incentives to achieve those targets; and

- Adopting and implementing measures to reduce transportation sector emissions.

CARB adopted the First Update to the AB 32 Scoping Plan in 2014 (CARB 2014). The Update describes progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. It also frames activities and issues facing the state as it develops an integrated framework for achieving both air quality and climate goals in California beyond 2020. Specifically, the Update covers the following:

- An update of the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants.

- A review of progress-to-date, including an update of Scoping Plan measures and other state, federal, and local efforts to reduce GHG emissions in California.

- Potential technologically feasible and cost-effective actions to further reduce GHG emissions by 2020.

- Recommendations for establishing a mid-term emissions limit that aligns with the state's long-term goal of an emissions limit 80 percent below 1990 levels by 2050.

- Sector-specific discussions covering issues, technologies, needs, and ongoing state activities to significantly reduce emissions throughout California's economy through 2050.

As discussed above, in December 2007, CARB approved a total statewide GHG 1990 emissions level and 2020 emissions limit of 427 $MMTCO_2e$. As part of the Update, CARB revised the 2020 statewide limit to 431 $MMTCO_2e$, an approximately 1 percent increase from the original estimate. The revised estimate includes incorporation of the Pavley standards (AB 1493, Clean Car Standards) in the business-as-usual forecast. The 2020 business-as-usual forecast in the Update is 509 $MMTCO_2e$. The state would need to reduce those emissions by 15 percent to meet the 431 $MMTCO_2e$ 2020 limit.

Senate Bill 375 (Sustainable Communities and Climate Protection Act of 2008)

SB 375, adopted in September 30, 2008, provides a means for achieving AB 32 goals through the reduction in emissions by cars and light trucks. SB 375 requires Regional Transportation Plans (RTPs) prepared by Metropolitan Planning Organizations (MPOs) to include Sustainable Communities Strategies (SCSs). In adopting SB 375, the Legislature found that improved coordination between land use planning and transportation planning is needed in order to achieve the GHG emissions reduction target of AB 32. Furthermore, the staff analysis for the bill prepared for the Senate Transportation and Housing Committee's August 29, 2008 hearing on SB 375 began with the following statement: "According to the author, this bill will help implement AB 32 by aligning planning for housing, land use, transportation and greenhouse gas emissions for the 17 MPOs in the state." Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. CARB has set the following reduction targets for the Southern California Association of Governments (SCAG): reduce per capita 8 percent of GHG emissions below 2005 levels by 2020 and 13 percent below 2005 levels by 2035.

Senate Bill 743

SB 743, adopted September 27, 2013, encourages land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT), which contribute to GHG emissions, as required by AB 32. Key provisions of SB 743 include reforming aesthetics and parking CEQA analysis for certain urban infill projects and eliminating the measurement of auto delay, including Level of Service (LOS), as a metric that can be used for measuring traffic impacts in transit priority areas. SB 743 requires the Governor's Office of Planning and Research (OPR) to develop revisions to the CEQA Guidelines by July 2020 establishing criteria for determining the significance of transportation impacts of projects within transit priority areas that promote the "…reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." It also allows the Governor's Office of Planning and Research to develop alternative metrics outside of transit priority areas.

California Green Building Standard Code (CalGreen)

The California Green Building Standard Code, referred to as CalGreen, is the first statewide Green Building Code. It was developed to provide a consistent approach for green building within California and took effect January 2011. CalGreen lays out minimum requirements for newly constructed buildings in California, which will reduce GHG emissions through improved efficiency and process improvements. It requires builders to install plumbing that cuts indoor water use by as much as 20 percent, to divert 50 percent of construction waste from landfills to recycling, and to use low-pollutant paints, carpets, and floors. CalGreen is updated every three years.

Senate Bills 1078/107/X 1-2 (Renewables Portfolio Standard and Renewable Energy Resources Act)

SB 1078 and 107, California's Renewables Portfolio Standard, obligated investor-owned energy service providers and Community Choice Aggregations to procure an additional 1 percent of retail sales per year from eligible renewable sources until 20 percent was reached (by 2010). The California Public Utilities Commission and California Energy Commission are jointly responsible for implementing the program. SB X 1-2, called the California Renewable Energy Resources Act, obligates all California electricity providers to obtain at least 33 percent of their energy from renewable resources by 2020.

Executive Order B-30-15

On April 29, 2015, Governor Brown issued E.O. B-30-15, stating a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. The Executive Order establishes GHG emissions reduction targets to reduce emissions to 80 percent below 1990 levels by 2050 and sets an interim target of emissions reductions for 2030 as being necessary to guide regulatory policy and investments in California and put California on the most cost-effective path for long-term emissions reductions. The Executive Order orders "all state agencies with jurisdiction over sources of [GHG] emissions [to] ... implement measures, pursuant to statutory authority, to achieve reductions of [GHG] emissions to meet the 2030 and 2050 [GHG] emissions reductions targets."

E.O. B-30-15 directs CARB to "update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent." It directs the Natural Resources Agency to update "Safeguarding California" (the state's climate adaptation strategy) every three years, as specified; directs state agencies to "take climate change into account in their planning

and investment decisions, and employ full life-cycle cost accounting to evaluate and compare infrastructure investments and alternatives;" and orders the "State's Five-Year Infrastructure Plan [to] take current and future climate change impacts into account in all infrastructure projects." Among its other directives, the Executive Order provides that "state agencies' planning and investment shall be guided by the ... principle that priority should be given to actions that both build climate preparedness and reduce GHG emissions."

Senate Bill 32

On September 8, 2016, California signed into law SB 32, which adds Section 38566 to the Health and Safety Code and requires a commitment to reducing statewide GHG emissions by 2020 to 1990 levels and by 2030 to 40 percent less than 1990 levels. SB 32 was passed with companion legislation AB 197, which provides additional direction for developing the Scoping Plan. Recently, CARB released The Proposed 2017 Climate Change Scoping Plan Update (Proposed 2017 Update), which outlines the proposed framework of action for achieving California's new SB 32 2030 GHG target: a 40 percent reduction in GHG emissions by 2030 relative to 1990 levels (CARB 2017). The 2030 target is intended to ensure that California remains on track to achieve the goal set forth by E.O. B-30-15 to reduce statewide GHG emissions by 2050 to 80 percent below 1990 levels. The Proposed 2017 Update identifies key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water.

Through a combination of data synthesis and modeling, CARB determined that the target statewide 2030 emissions limit is 260 MMTCO2e, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO2e beyond current policies and programs. Key elements of the Proposed 2017 Update include a proposed 20 percent reduction in GHG emissions from refineries and an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2050 limit set forth by E.O. B-30-15. The Proposed 2017 Update indicates that stronger SB 375 reduction targets are needed to meet the state's 2030 and 2050 goals and that, "[m]ore needs to be done to fully exploit synergies with emerging mobility solutions like ridesourcing and more effective infrastructure planning to anticipate and guide the necessary changes in travel behavior, especially among millennials." Stronger SB 375 reduction targets will likely encourage further densification around transit infrastructure.

Local

CSULB Climate Action Plan

In May 2014, the CSU Board of Trustees adopted the first systemwide Sustainability Policy, which applies sustainable principles across all areas of university operations, including facility sustainability improvements, energy and water efficiency retrofits, and incorporation of green building practices into new facility design. In addition, current CSU policy requires all new construction and major renovations to be achieve the equivalent of a silver level of certification under the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) rating system. The LEED rating system assesses buildings in accordance with sustainability criteria across many areas, including location and transportation, energy and water efficiency, materials, indoor environmental quality, integration of the site with its natural environment, and innovation. In addition to adhering to LEED green building standards, CSULB is committed to pursuing the principles of NZE (Net Zero Energy) to all new campus buildings. Buildings will be designed to not only minimize consumption of energy and other natural resources, but also to use

only as much energy as they can generate from renewable energy sources such as solar photovoltaic systems. Specifically, in 2016, CSULB President Conoley signed the Climate Commitment to integrate carbon neutrality with climate resilience and established the President's Commission on Sustainability in 2018, with the mission of integrating sustainability--defined as the intentional and simultaneous focus on environmental, social, and economic health--into all aspects of the university (CSULB 2016).

In December 2014, the CSULB Climate Action Plan was released (CSULB 2014). The plan sets the path for the University to achieve the goal of carbon neutrality by the year 2030. The plan's emission reduction strategies are broken out into four categories (transportation, energy operation, and carbon offsets) that will advance the University's goals towards carbon neutrality in 2030. However, the CSULB Climate Action Plan did not undergo environmental review or formal adoption by the CSU and is not a qualified GHG reduction plan under CEQA Guidelines Section 15183.5. Thus, it cannot be used in a cumulative impacts analysis to determine impact significance.

SCAG 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy

SCAG is the MPO for the six-county region that includes Los Angeles, Orange, Riverside, Ventura, San Bernardino and Imperial counties. The 2016–2040 RTP/SCS includes commitments to reduce emissions from transportation sources to comply with SB 375. Goals and policies included in the 2016–2040 RTP/SCS to reduce GHG emissions consist of adding density in proximity to transit stations, mixed-use development and encouraging active transportation (i.e., non-motorized transportation such as bicycling). SCAG promotes the following policies and actions related to active transportation to help the region confront congestion and mobility issues and consequently reduce emissions:

- Implement Transportation Demand Management (TDM) strategies including integrating bicycling through folding bikes on buses programs, triple racks on buses, and dedicated racks on light and heavy rail vehicles;
- Encourage and support local jurisdictions to develop "Active Transportation Plans" for their jurisdiction if they do not already have one;
- Expand Compass Blueprint program to support member cities in the development of bicycle plans;
- Expand the Toolbox Tuesday's program to encourage local jurisdictions to direct enforcement agencies to focus on bicycling and walking safety to reduce multimodal conflicts;
- Support local advocacy groups and bicycle-related businesses to provide bicycle-safety curricula to the general public;
- Encourage children, including those with disabilities, to walk and bicycle to school;
- Encourage local jurisdictions to adopt and implement the proposed SCAG Regional Bikeway Network; and
- Support local jurisdictions to connect all of the cities within the SCAG region via bicycle facilities.

SB 375 requires CARB to develop regional CO_2 emission reduction targets, compared to 2005 emissions, for cars and light trucks only for 2020 and 2035 for each MPO. SB 375 also requires that each MPO prepare an SCS as part of the RTP to reduce CO_2 by better aligning transportation, land use, and housing. For SCAG, the targets are to reduce per capita emissions 8 percent below 2005 levels by 2020 and 13 percent below 2005 levels by 2035 (SCAG 2016). The 2016–2040 RTP/SCS states that the region will meet or exceed the SB 375 per capita targets. The 2016–2040 RTP/SCS also states that regional 2040 per capita emissions would be reduced by 22 percent, although CARB has not established a 2040 per capita emissions target.

3.3.3 Environmental Impact Analysis

3.3.3.1 Methodology

GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod), as recommended by the South Coast Air Quality Management District (SCAQMD). CalEEMod quantifies GHG emissions from construction activities and future operation of projects. Sources of GHG emissions during project construction would include heavy-duty off-road diesel equipment and vehicular travel to and from the project site. The construction emissions analysis was based on a combination of detailed information provided by the CSULB project team and CalEEMod default assumptions related to typical construction activities. In accordance with SCAQMD methodology, the total amount of GHG emissions that would be generated by construction of the proposed project was amortized over the operational life of the project to represent long-term impacts, which for this project is assumed to be 30 years.

Sources of GHG emissions during project operation would include landscaping equipment, water use, and waste generation.

Emissions related to solid waste were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the waste generated by applicable emissions factors, provided in Section 2.4 of USEPA's AP-42, Compilation of Air Pollutant Emission Factors. CalEEMod solid waste generation rates for each applicable land use were selected for this analysis.

Emissions related to water usage and wastewater generation were calculated using CalEEMod emission inventory model which multiplies an estimate of the water usage by the applicable energy intensity factor to determine the embodied energy necessary to supply potable water. GHG emissions are related to the energy used to convey, treat, and distribute water and wastewater. Thus, the emissions are generally indirect emissions from the production of electricity to power these systems. GHG emissions are then calculated based on the amount of electricity consumed multiplied by the GHG intensity factors for the utility provider. In this case, embodied energy for southern California supplied water and GHG intensity factors for Southern California Edison were selected in CalEEMod.

3.3.3.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the project would normally have a significant impact with respect to greenhouse gas emissions if it would:

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

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

3.3.3.3 Impact Analysis

GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant. Implementation of the proposed project would generate both direct and indirect GHG emissions; however, the magnitude of emissions would be minimized through the incorporation of robust project design and sustainability features that enhance energy efficiency and reduce resource consumption. Temporary direct GHG emissions would be generated from the use of off-road equipment and truck/worker vehicle trips during construction activities. Mandatory compliance with SCAQMD regulations that restrict vehicle idling and ensure optimal equipment operating conditions would prevent the occurrence of excessive GHG emissions from these sources. The SCAQMD recommends that temporary GHG emissions associated with construction of CEQA projects be amortized over the operational life of the project to reflect the cumulative nature of climate change implications, which for this project is assumed to be 30 years. The amortized construction emissions are estimated at 20.6 metric tons of CO_2e per year, which is well below the threshold of 3,500 metric tons of CO_2e per year, as shown in Table 3.3-4

Table 3.3-4
Estimated Annual GHG Emissions

Scenario and Emission Source	Carbon Dioxide Equivalent (Metric Tons per Year)
Construction Emissions (Buildings) Amortized (Direct) /a/	9.5
Construction Emissions (Roadway) Amortized (Direct) /a/	3.5
Area Source Emissions (Direct)	<0.1
Energy Source Emissions (Indirect)	0.0
Mobile Source Emissions (Direct)	0.0
Waste Disposal Emissions (Indirect)	5.1
Water Distribution Emissions (Indirect)	2.5
TOTAL	**20.6**
SCAQMD Draft Interim Significance Threshold	**3,500**
Exceed Threshold?	**No**

/a/ Construction emissions are amortized over 30 years per SCAQMD guidance.
Source: Terry A. Hayes Associates Inc. 2019.

Typically, during operations the majority of permanent GHG emissions associated with land use development are related to vehicle trips and energy consumption. However, the proposed project would not generate new vehicle trips as the proposed project would not result in an increase in enrollment. Rather, the two proposed buildings would serve a similar purpose to the existing Hillside Office/Commons building by providing HRL services as well as study and recreational areas for existing students on-campus. Additionally, the proposed HRL office building and proposed commons building envelope would be designed to achieve NZE by supplying 100 percent of energy needs on a net annual basis from on-site renewables and would meet LEED Platinum certification criteria. The proposed HRL office and commons buildings would be all electric, including heating, cooling, and hot water systems. The proposed project would not require natural gas consumption. While it is not anticipated that the proposed project would

generate more solid waste or use more potable water than the existing condition, the emissions analysis conservatively accounts for emissions related to solid waste disposal and electricity consumption associated with water supply, treatment, and distribution. Therefore, the proposed project would result in a less than significant impact related to generating GHG emissions.

GHG-2: 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. All local, regional, and State GHG reduction plans, policies, and regulations are written to reduce energy consumption, both from power generation and fuel use. The proposed project would seek to achieve a LEED Platinum Rating and, as previously stated, the NZE design would supply 100 percent of energy needs on a net annual basis from on-site renewables. Project design includes a total of 400 solar photovoltaic panels on the roofs of the two buildings and the central courtyard canopy that would generate approximately 89 kilowatts of energy. The proposed project would also include the following sustainability features in the design as described:

Utilize reclaimed water to save 4,332 gallons of potable water per day (1,577,527 gallons annually).

Utilize materials with high solar reflectance to reduce the heat island effect.

Reduce single-commuter vehicular traffic through installation of bicycle racks.

Install walk-off matts to reduce the entrance of particulate matter into interiors.

Divert the following construction debris from landfills:

  - 99 percent of metal, paper, cardboard,
  - 100 percent of soil and biomass,
  - 95 percent rigid foam, carpet, and insulation,
  - 90 percent of all other materials,
  - Reuse existing brick materials.

- Employ water and energy submeters to optimize building technology and inform ongoing operations and maintenance demands.

- Install operable windows that provides direct access to fresh outdoor air, as well as access to natural daylight. Operable windows also allow for passive ventilation strategies, while a canopy-covered courtyard provides shade, a host for photovoltaics, and supports and activates the space between the proposed HRL office building and commons building.

- Utilize mechanical systems that optimize energy efficiency and solar zones to increase level of individual controllability of thermal comfort and air speed.

- Manage 100 percent of stormwater on site via capture and/or infiltration with ground water recharge.

- Utilize construction materials that are vetted for compliance with the Red List, prohibiting the use of any materials which may have chemicals of concern. In addition, wood materials will be certified by the Forest Stewardship Council.

- Use a lighting strategy that includes specifying 75 percent of the total connected lighting load as indirect fixtures, which supports an ambient lighting design. Additionally, utilize materials with high reflectivity to allow light to reflect naturally throughout the space.

- Utilize materials with low to no volatile organic compounds.

- Test materials for presence of particulate matter, formaldehyde, smoke, volatile organic compounds and other chemicals of concern prior to occupancy.

- Use enhanced filtration media at all mechanical systems to enhance air quality throughout occupancy.

As previously discussed, there are a number of plans GHG reduction plans, policies, and regulations relevant to the proposed project. Importantly, the CSULB Climate Action Plan and related Sustainability Policy applies sustainable principles across all areas of university operations, including facility sustainability improvements, energy and water efficiency retrofits, and incorporation of green building practices into new facility design. In addition, current CSU policy requires all new construction and major renovations to achieve the equivalent of a silver level of certification under the LEED rating system (CSULB 2016). The proposed project would be consistent with the CSU's Commitment to Sustainability and the CSULB President's Climate Commitment. Importantly, the proposed project would seek to achieve a LEED Platinum Rating and the NZE design would supply 100 percent of energy needs on a net annual basis by on-site renewables. These two features ensure that the proposed project would not interfere with the CSULB Climate Action Plan and Sustainability Policy. In addition, Tables 3.3-5 and 3.3-6 demonstrate the proposed project's consistency with the SCAG RTP/SCS and State Scoping Plan GHG Reduction Strategies. Finally, the proposed project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in E.O. S-03-05 and SB 32, or the carbon neutrality goal for 2045 identified in E.O. B-55-18. As discussed in Section 3.3.2 above, E.O. S-03-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and for cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40 percent below 1990 levels by December 31, 2030. E.O. B-55-18 establishes an additional statewide policy goal to achieve carbon neutrality as soon as possible and no later than 2045, and to achieve and maintain net negative emissions thereafter. The LEED Platinum Rating and the NZE design for the proposed buildings ensure consistency with all relevant GHG reduction plan, policy, or regulation. Therefore, the proposed project would result in a less than significant impact related to conflict with GHG reduction plans.

Table 3.3-5
Project Consistency with the SCAG 2016 RTP/SCS

RTP/SCS Measure	Project Consistency
Preserve the Transportation System We Already Have	Does not apply. The project would not inhibit SCAG from preserving the existing transportation system.
Expand Our Regional Transit System to Give People More Alternatives to Driving Alone	Does not apply. The project would not inhibit SCAG from expanding the regional transportation system.
Expand Passenger Rail	Does not apply. The project would not inhibit SCAG from expanding the passenger rail system.
Improve Highway and Arterial Capacity	Does not apply. The project would not inhibit SCAG from improving highway and arterial capacity.
Manage Demands on the Transportation System	Consistent. The project would reduce demand on the transportation system by providing more centralized support services for on-campus residential students.
Optimize the Performance of the Transportation System	Does not apply. The project would not inhibit SCAG from optimizing the performance of the transportation system.
Promoting Walking, Biking and Other Forms of Active Transportation	Consistent. The project's location places students in walking and biking distance of classes and support services on CSULB's campus.
Strengthen the Regional Transportation Network for Goods Movement	Does not apply. The project would not inhibit SCAG from strengthening the regional transportation network for goods movement.
Leverage Technology	Does not apply. The project would not inhibit SCAG from leveraging technology for the transportation system.
Improve Airport Access	Does not apply. The project would not inhibit SCAG from improving airport access.
Focus New Growth Around Transit	Consistent. The project would build new residential structures near existing transit corridors.
Improve Air Quality and GHG	Consistent. The project, as with all construction projects, would generate short-term construction emissions but these emissions would not exceed significance thresholds. More importantly, the LEED and NZE design ensures that long-term operational emissions from energy, water, waste, and area sources would be negligible and not significant. The project would not generate new mobile source emissions.
Preserve Natural Lands	Consistent. The project would not impact natural lands during construction or operation.

Source: SCAG 2016.

Table 3.3-6
Project Consistency with Scoping Plan GHG Reduction Strategies

RTP/SCS Measure	Measure Number	Project Consistency
Transportation Sector		
Advanced Clean Cars	T-1	Not applicable. The project would not prevent CARB from implementing this measure.
Low-Carbon Fuel Standard	T-2	Not applicable. The project would not prevent CARB from implementing this measure.
Regional Transportation-Related GHG Targets	T-3	Not applicable. The project would not prevent CARB from implementing this measure.
Advanced Clean Transit	Proposed	Not applicable. The project would not prevent CARB from implementing this measure.
Last-Mile Delivery	Proposed	Not applicable. The project would not prevent CARB from implementing this measure.
Reduction in VMT	Proposed	Not applicable. The project would not prevent CARB from implementing this measure.
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	Not applicable. The project would not prevent CARB from implementing this measure.
Ship Electrification at Ports (Shore Power)	T-5	Not applicable. The project would not prevent CARB from implementing this measure.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement System-wide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	T-6	Not applicable. The project would not prevent CARB from implementing this measure.
Heavy-Duty Vehicle GHG Emission Reduction • Tractor-Trailer GHG Regulation • Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	Not applicable. The project would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Proposed Project	T-8	Not applicable. The project would not prevent CARB from implementing this measure.
Medium and Heavy-Duty GHG Phase 2	Proposed	Not applicable. The project would not prevent CARB from implementing this measure.

Table 3.3-6
Project Consistency with Scoping Plan GHG Reduction Strategies

RTP/SCS Measure	Measure Number	Project Consistency
High-Speed Rail	T-9	Not applicable. The project would not prevent CARB from implementing this measure.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	Consistent. The project would exceed Title 24, Part 6, of the California Code of Regulations through meeting the LEED certification criteria and NZE design.
Energy Efficiency (Natural Gas)	CR-1	Consistent. The project would not require natural gas consumption.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	Consistent. The project design includes a total of 400 solar photovoltaic panels on the roofs of the two buildings and the central courtyard canopy that would generate approximately 89 kilowatts of energy. This energy would be used to heat water, among other energy needs.
Combined Heat and Power	E-2	Not applicable. The project would not prevent CARB from implementing this measure.
Renewable Portfolios Standard (33% by 2020)	E-3	Consistent. The project design includes a total of 400 solar photovoltaic panels on the roofs of the two buildings and the central courtyard canopy that would generate approximately 89 kilowatts of energy.
Renewable Portfolios Standard (50% by 2050)	Proposed	Consistent. The project design includes a total of 400 solar photovoltaic panels on the roofs of the two buildings and the central courtyard canopy that would generate approximately 89 kilowatts of energy.
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	Consistent. The project design includes a total of 400 solar photovoltaic panels on the roofs of the two buildings and the central courtyard canopy that would generate approximately 89 kilowatts of energy.
Water Sector		
Water Use Efficiency	W-1	Consistent. The project would include water efficient landscaping and the proposed buildings would seek to achieve LEED Platinum Rating certification.
Water Recycling	W-2	Consistent. The project would utilize reclaimed water to save 4,332 gallons of potable water per day (1,577,527 gallons annually).
Water-System Energy Efficiency	W-3	Consistent. The project would employ water and energy submeters to optimize building technology and inform ongoing operations and maintenance demands.

Table 3.3-6
Project Consistency with Scoping Plan GHG Reduction Strategies

RTP/SCS Measure	Measure Number	Project Consistency
Reuse Urban Runoff	W-4	Consistent. The project would manage 100 percent of stormwater on site via capture and/or infiltration with ground water recharge.
Renewable Energy Production	W-5	Consistent. The project design includes a total of 400 solar photovoltaic panels on the roofs of the two buildings and the central courtyard canopy that would generate approximately 89 kilowatts of energy.
Green Buildings		
State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	Consistent. The project would exceed Title 24, Part 6, of the California Code of Regulations through meeting LEED certification criteria and NZE design.
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	Consistent. The project would exceed Title 24, Part 6, of the California Code of Regulations through meeting LEED certification criteria and NZE design.
Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	Consistent. The project would exceed Title 24, Part 6, of the California Code of Regulations through meeting LEED certification criteria and NZE design.
Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	Not applicable. The project would not prevent CARB from implementing this measure.
Industry Sector		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	Not applicable. The project would not prevent CARB from implementing this measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	Not applicable. The project would not prevent CARB from implementing this measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	Proposed	Not applicable. The project would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	Not applicable. The project would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	Not applicable. The project would not prevent CARB from implementing this measure.
Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to include methane leaks	I-5	Not applicable. The project would not prevent CARB from implementing this measure.
Recycling and Waste Management Sector		
Landfill Methane Control Measure	RW-1	Not applicable. The project would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	Not applicable. The project would not prevent CARB from implementing this measure.

Table 3.3-6
Project Consistency with Scoping Plan GHG Reduction Strategies

RTP/SCS Measure	Measure Number	Project Consistency
Mandatory Commercial Recycling	RW-3	Consistent. The project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended. During construction, the project would divert the following construction debris from landfills: 99% of metal, paper, cardboard; 100% of soil and biomass; 95% rigid foam, carpet, and insulation; 90% of all other materials; and reuse existing brick materials.
Increase Production and Markets for Compost and Other Organics	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
Extended Producer Responsibility	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
Forests Sector		
Sustainable Forest Target	F-1	Not applicable. The project would not prevent CARB from implementing this measure.
High-GWP Gases Sector		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	Not applicable. The project would not prevent CARB from implementing this measure.
SF6 Limits in Non-Utility and Non-Semiconductor Applications	H-2	Not applicable. The project would not prevent CARB from implementing this measure.
Reduction of Perfluorocarbons (PFCs in Semiconductor Manufacturing	H-3	Not applicable. The project would not prevent CARB from implementing this measure.
Limit High GWP Use in Consumer Products	H-4	Not applicable. The project would not prevent CARB from implementing this measure.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	Not applicable. The project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	Not applicable. The project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	Not applicable. The project would not prevent CARB from implementing this measure.
SF6 Leak Reduction Gas Insulated Switchgear	H-6	Not applicable. The project would not prevent CARB from implementing this measure.

Table 3.3-6
Project Consistency with Scoping Plan GHG Reduction Strategies

RTP/SCS Measure	Measure Number	Project Consistency
40% reduction in methane and hydrofluorocarbon (HFC) emissions	Proposed	Not applicable. The project would not prevent CARB from implementing this measure.
50% reduction in black carbon emissions	Proposed	Not applicable. The project would not prevent CARB from implementing this measure.
Agriculture Sector		
Methane Capture at Large Diaries	A-1	Not applicable. The project would not prevent CARB from implementing this measure.

Source: CARB 2008; 2017.

3.3.4 Mitigation Measures

No mitigation measures are required.

3.3.5 Level of Significance after Mitigation

No mitigation measures are required. The proposed project would result in less than significant impacts without mitigation.

3.3.6 Cumulative Impacts

The State of California, through AB 32, has acknowledged that GHG emissions are a statewide impact. Emissions generated by the proposed project combined with past, present, and reasonably probable future projects could contribute to this impact. The CEQA Guidelines emphasize that the effects of GHG emissions are cumulative in nature and should be analyzed in the context of CEQA's existing cumulative impacts analysis. The California Governor's Office of Planning and Research acknowledges that although climate change is cumulative in nature, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project.

As discussed above, the proposed project would not generate significant GHG emissions and would be consistent with GHG reduction plans. Therefore, the proposed project's incremental contribution would not be cumulatively considerable.

3.4 TRIBAL CULTURAL RESOURCES

This section analyzes the potential impacts of the proposed project as it relates to tribal cultural resources. The analysis in this section is based, in part, on the findings of the Extended Phase I Cultural Resources Assessment (AECOM 2020) prepared for the proposed project and provided in Appendix B of this Supplemental EIR. Additionally, the analysis in this section is based on the results of consultation with California Native American Tribes conducted by CSULB for the proposed project, as required by CEQA, as amended by Assembly Bill (AB) 52.

The section is intended to supplement the 2008 EIR and evaluate the proposed project's potential impacts to tribal cultural resources based on project modifications, changed circumstances, and/or new information that was not known and could not have been known with the exercise of reasonable diligence at the time the prior document was certified. At the time the 2008 Campus Master Plan was prepared, potential impacts to tribal cultural resources were not evaluated because it was prepared prior to the 2016 amendment to the State CEQA Guidelines pertaining to tribal cultural resources. However, potential impacts on known significant archaeological sites located in the vicinity of the proposed project were evaluated. The analysis contained herein incorporates the required programmatic mitigation measures from the 2008 EIR, which includes previous consideration of archaeological resources. Mitigation Measures CR-1 through CR-5 described in Section 3.1, Cultural Resources, are derived from the 2008 EIR and applicable to the proposed project. Project-specific mitigation measure, Mitigation Measure TCR-1, is also provided below to supplement the required mitigation measures from the 2008 EIR.

3.4.1 Environmental Setting and Background

The project site is located in coastal Los Angeles County on the CSULB campus. The project site is centrally located within the campus's Hillside College residence hall complex. The Hillside College complex is bounded by the campus border with the Veterans Affairs (VA) to the south, Earl Warren Drive to the west, the campus's Parking Lot G4 and the Los Cerritos Channel to the north, and Merriam Way and Student Health Services to the east. Merriam Way provides vehicular access to the Hillside College surface parking lot from the east. Earl Warren Drive is a two-lane road that provides primary north-south vehicular access to the campus.

As it is presently mapped, prehistoric archaeological site CA-LAN-235 (P-19-000235) overlaps the western boundary of the project area. The site is a contributor to the Puvunga Indian Village Historic District, a complex of three archaeological sites in the area that is listed in the National Register of Historic Places (NRHP) and thus, automatically listed in the California Register of Historical Resources (CRHR or California Register). The other two sites in the district are located in the vicinity of CA-LAN-235. CA-LAN-234 is located to the south of the project site overlapping the CSULB campus and the Veterans Administration campus. The third site, CA-LAN-306 is located to the southeast in the vicinity of Bixby Ranch. However, the CA-LAN-235 has never been evaluated for NRHP eligibility as an individual property. A portion of the Puvunga site, known as "the 22 acres," located to the west of Earl Warren Drive, is actively used for ceremonies by Native American groups.

As discussed in Section 3.1, Cultural Resources, the Puvunga site is often associated by today's Juaneño with the place of creation and the scene of important activities by several culture heroes or gods. The Puvunga site has become important to the development of Gabrielino and Juaneño religion over the past approximately 48 years since human remains were discovered on the property in 1972, and particularly in the 40 years since those remains were reinterred within the boundaries of the archaeological site, as further discussed below. The Puvunga site became a

renewed focus for Native American religion during the renaissance of Native American political and cultural life in the 1970s. The location was the site of further cultural change and innovation in 1995 with the introduction of the Ancestor Walk, a new religious ritual but one that is rooted in veneration of the ancestors. The Ancestor Walk and Bear Dance was held at CA-LAN-235 for the 22nd consecutive year in 2019, with an estimated 500 attendees.

The discussion regarding the eligibility of the Puvunga Indian Village Historic District generally does not include buildings, structures, or objects at the three archaeological sites that comprise the district. Instead, such discussions generally revolve around the undeveloped nature of these sites, as contrasted against the urbanized nature of surrounding Long Beach. The 22 acres portion of CA-LAN-235 is generally undeveloped, with the relatively new religious structures now found on the site (such as ancestor poles and the dance floor) post-date the 1974 NRHP nomination and are therefore not evaluated or cited for their contribution to the site's eligibility.

Finally, the site is important in the introduction of the Native American ritual of the Bear Dance from northern California to the Los Angeles area. The introduction of the Bear Dance to southern California appears little studied and therefore is poorly understood. The ritual is not exclusively practiced at CA-LAN-235—at least in 2018 it was celebrated both in conjunction with the Ancestor Walk at CA-LAN-235 and the following weekend at the annual intertribal Many Winters Gathering of Elders at Angels Gate Park in San Pedro —but the importance of the Bear Dance at CA-LAN-235 and their return at least annually contributes to the development of what appears to be a pan-Indian religious movement.

The Extended Phase I Cultural Resources Assessment (Appendix B) summarizes major prehistoric and historic developments in and around Long Beach, provides a more focused discussion of the history of the project area, and serves as a historical framework for the ethnohistoric village of Puvunga.[15]

Detailed information regarding the geoarchaeological analysis conducted for the proposed project are described in Section 3.1, Cultural Resources, subsection 3.1.1, and in Appendix B. Detailed information regarding the previous recorded cultural resources and archaeological investigations at CA-LAN-234 and CA-LAN-235 are described in Section 3.1, Cultural Resources, subsection 3.1.1, and in Appendix B.

3.4.2 Regulatory Setting

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the National Register of Historic Places (NRHP) to recognize resources associated with the country's history and heritage The NRHP is the nation's master inventory of known historic resources. The NRHP is administered by the National Park Service (NPS) and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Eligibility for in the NRHP is addressed in National Register Bulletin (NRB) 15: How to Apply the National Register Criteria for Evaluation. NRB 15 states that in order

[15] Variants of the name include Puvungna, Puvunga, Puvu-ngna, and Povuu'ngna. The ethnographic village is referred to as "Puvungna" while the historic district NRHP-listing is referred to as "Puvunga."

to be eligible for the National Register, a resource must both: (1) be historically significant, and (2) retain sufficient integrity to adequately convey its significance.

Significance is assessed by evaluating a resource against established eligibility criteria. A resource is considered significant if it satisfies any one of the following four NRHP criteria:[16]

- Criteria A (events): associated with events that have made a significant contribution to the broad patterns of our history;
- Criteria B (persons): associated with the lives of significant persons in our past;
- Criteria C (architecture): embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction;
- Criteria D (information potential): has yielded or may be likely to yield, information important in prehistory or history.

Once significance has been established, it must then be demonstrated that a resource retains enough of its physical and associative qualities – or integrity – to convey the reason(s) for its significance. Integrity is best described as a resource's "authenticity" as expressed through its physical features and extant characteristics. Generally, if a resource is recognizable as such in its present state, it is said to retain integrity, but if it has been extensively altered then it does not. Whether a resource retains sufficient integrity for listing is determined by evaluating the seven aspects of integrity defined by NPS:

- Location (the place where the historic property was constructed or the place where the historic event occurred);
- Setting (the physical environment of a historic property);
- Design (the combination of elements that create the form, plan, space, structure, and style of a property);
- Materials (the physical elements that were combined or deposited during a particular period of time and in a particular manner or configuration to form a historic property);
- Workmanship (the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory);
- Feeling (a property's expression of the aesthetic or historic sense of a particular period of time);
- Association (the direct link between an important historic event/person and a historic property).

[16] Some resources may meet multiple criteria, though only one criterion needs to be satisfied for NRHP eligibility.

Integrity is evaluated by weighing all seven of these aspects together and is ultimately a "yes or no" determination – that is, a resource either retains sufficient integrity, or it does not.[17] Some aspects of integrity may be weighed more heavily than others depending on the type of resource being evaluated and the reason(s) for the resource's significance. Since integrity depends on a resource's placement within a historic context, integrity can be assessed only after it has been concluded that the resource is in fact significant.

State

Assembly Bill 52

On September 25, 2014, Governor Jerry Brown signed into law AB 52. The act amended California Public Resources Code (PRC) Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a Notice of Preparation (NOP) or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) was filed on or after July 1, 2015.

AB 52 established a new category of protected resources in CEQA called tribal cultural resources. AB 52 requires that agencies consult with tribal representatives and consider tribal cultural values in addition to scientific and archaeological values when determining project impacts and mitigation measures during the planning process. According to Public Resources Code Section 21074, tribal cultural resources consist of either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

    (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

    (A) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

    (B) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

The following includes a general summary of the PRC Sections added by AB 52:

[17] Derived from NRB 15, Section VIII: "How to Evaluate the Integrity of a Property."

- PRC Section 21073 defines California Native American tribe to mean a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004.

- PRC Section 21080.3.1 declares that California Native American tribes traditionally and culturally affiliated with a geographic area may have expertise concerning their tribal cultural resources. It also provides requirements for lead agencies to consult with California Native American tribes.

- PRC Section 21080.3.2 identifies potential topics for consultation, including the significance of tribal cultural resources, the significance of a project's impacts on tribal cultural resources, and measures for preservation or mitigation, if necessary, and defines when consultation shall be considered concluded. Consultation is concluded when: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; and (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

- PRC Section 21082.3 states that mitigation measures agreed upon in consultation shall be recommended for inclusion in the environmental document if determined to avoid or less impacts. The section also states that a lead agency may certify an environmental impact report with a significant impact on an identified tribal cultural resource if consultation has occurred, consultation was requested by a California Native American tribe but has not provided comments or engaged, or the Native American Tribe fails to request consultation within 30 days.

- PRC Section 21083.09 revises Appendix G of the CEQA Guidelines to include consideration of tribal cultural resources.

- PRC Section 21084.2 declares that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant impact on the environment.

- PRC Section 21084.3 provides example mitigation measures that may be considered to avoid or minimize significant adverse impacts to any tribal cultural resource.

California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5

Section 21084.1 of the California Public Resources Code states that for purposes of CEQA, "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment."[18]

This necessitates a two-part inquiry: first, it must be determined whether a given project involves a historical resource, and if it does, a determination must be made as to whether the project may result in a "substantial adverse change in the significance" of that historical resource.

[18] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.

To answer these questions, guidance relating to historical resources has been formally codified as Section 15064.5 of the CEQA Guidelines, which define a "historical resource" as any one of the following, for purposes of CEQA compliance:[19]

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources.

- A resource included in a local register of historical resources, or identified as significant in a qualified historical resource survey, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrate that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources.

Once it has been determined that a historical resource is present, it must then be determined whether the project may result in a "substantial adverse change" to that resource. Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource will be materially impaired."[20] The significance of a historical resource is materially impaired when a project:

a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resources that convey its historical significance and that justify its inclusion in, or eligibility for, the California of Historical Resources; or

b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the PRC of its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project established by a preponderance of evidence that the resource is not historically or culturally significant; or

c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA.

CEQA requires a lead agency to identify measures to mitigate significant adverse impacts to historical resources. The CEQA Guidelines state that "the lead agency shall ensure that any

[19] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.
[20] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.

adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures" deemed prudent and feasible."[21]

California Register of Historical Resources

The CRHR is an authoritative guide used to identify, inventory, and protect historical resources in California. Established by an act of the State Legislature in 1998, the California Register program encourages public recognition and protection of significant architectural, historical, archaeological, and cultural resources; identifies these resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under the CEQA.

The structure of the California Register program is similar to that of the NRHP, though the former more heavily emphasizes resources that have contributed specifically to the development of California. To be eligible for the California Register, a resource must first be deemed significant under one of the following four criteria, which are modeled after the NRHP criteria listed above:

- Criteria 1 (events): associated with events or patterns of events that have made a significant contribution to the broad patters of local or regional history, or the cultural heritage of California or the United States;

- Criteria 2 (persons): associated with the lives of persons important to local, California, or national history;

- Criteria 3 (architecture): embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values;

- Criteria 4 (information potential): has yielded, or has the potential to yield, information important in prehistory or history of the local area, state, or the nation.

Mirroring the National Register, the California Register also requires that resources retain sufficient integrity to be eligible for listing. A resource's integrity is assessed using the same seven aspects of integrity used for the National Register. However, since integrity thresholds associated with the California Register are generally less rigid than those associated with the National Register, it is possible that a resource may lack the integrity required for the National Register but still be eligible for listing in the California Register.

Certain properties are automatically listed in the CRHR, as follows:[22]

- All California properties that are listed in the NRHP;

- All California properties that have formally been determined eligible for the NRHP (by the State Office of Historic Preservation);

- All California Historical Landmarks numbered 770 and above; and

[21] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.
[22] California Public Resources Code, Division 5, Chapter 1, Article 2, § 5024.1.

- California Points of Historical Interested which have been reviewed by the State Office of Historic Preservation and recommended for listing by the State Historical Resources Commission.

Resources may be nominated directly to the California Register. Any State Historic Landmarks listed after #770 are also automatically listed in the California Register. There is no prescribed age limit for listing in the California Register, although guidelines state that sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with a resource.

Local

While CSULB is located within the Long Beach city limits, it is an entity of the CSU, which is a constitutionally created state agency, and is therefore not subject to local government planning and land use plans, policies, or regulations.

3.4.3 Environmental Impact Analysis

3.4.3.1 Methodology

Tribal cultural resources are defined by and in consultation with tribal representatives. Tribal consultation was formally initiated in October 2019 and concluded on February 14, 2020, as is further discussed below under Sacred Land Files Search and AB 52 Consultation.

Sacred Land Files Search and AB 52 Consultation

A Native American Sacred Lands File (SLF) search and contact program were conducted to inform interested parties of the proposed project and to request any information that may indicate an impact to cultural resources within the project area. The program involved contacting Native American representatives identified by the Native American Heritage Commission (NAHC) and individuals and groups known to have knowledge about the project area, in order to solicit comments and concerns regarding the project.

A letter was prepared and emailed to the NAHC on March 6, 2019. The letter requested that a SLF check be conducted for the proposed project and that contact information be provided for Native American groups or individuals that may have concerns about cultural resources in the project site. The NAHC responded to the request in a letter sent via email and dated March 14, 2019. The letter stated that the SLF search had been conducted, and "The results were positive. Please contact the tribes on the attached list for more information." The letter also provided a list of Native American groups to contact for their interests in this proposed project. The list named five Gabrieliño tribes "who may also have knowledge of cultural resources in the project area."

CSULB conducted consultation with these five tribes pursuant to AB 52. Representatives for these tribes were contacted with a letter mailed on October 15, 2019. Additionally, a letter was sent on October 22, 2019, to a representative for the Juaneño Band of Mission Indians–Acjachemen Nation, a tribe that had notified CSULB that it had an interest in the project area. Four tribes responded to the letter via e-mail, and an additional tribe confirmed receipt of the letter in the course of follow-up calls. Tribal representatives from four tribes – including the Gabrieleno Band of Mission Indians–Kizh Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrieleno Tongva San Gabriel Band of Mission Indians, and the Juaneño Band of Mission Indians–Acjachemen Nation – ultimately requested direct government-to-government consultation.

Archival Research

As discussed in Section 3.1, Cultural Resources, archival research for the entire CSULB campus and a 0.5-mile records search buffer surrounding the campus was conducted on March 6, 2019, at the South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton. The archival research indicated that 39 previous cultural resource studies have been conducted within a 0.5-mile (800 meters) of the project site between 1974 and 2011. A summary of all 39 of the previous cultural resource studies can be found in Appendix B of this Supplemental EIR.

Cultural Resources Survey

A pedestrian archaeological field survey was conducted on October 18, 2019, to determine whether any archaeological resources are present in the project site. Because of their potential association with the Puvunga Indian Village Historic District, such resources could potentially also be culturally significant to Native American tribes as well. The field survey covered the entire project area that would be subject to ground-disturbing activities, including that portion of CA-LAN-235 which extends into the project area. No evidence of CA-LAN-235 was observed on the ground surface where the archaeological site overlaps with the project site. A small amount of fragmentary marine shell was observed on the east lawn outside the recorded boundary of CA-LAN-235, but no artifacts were observed. However, the ground surface was obscured by paving, buildings, and lawns, and so, the field survey was deemed inconclusive.

Because the field survey was inconclusive, limited subsurface probes using a combination of shovel test pits and augers, were conducted within the project site between November 5 and November 8, 2019. The intent of the probes was to identify the locations of possibly intact subsurface archaeological deposits within unpaved portions of the project area that were not visible on the surface due to the extensive landscaping. The test probes were set out in a rough grid pattern meant to encompass the entire project area, including but not limited to CA-LAN-235. Locations which were believed least likely to have been previously impacted by either utilities or other construction were deliberately selected to be tested. The test probes were excavated to a depth below which previous investigations indicate the site should have been found, if it were preserved within the project area. A total of 15 such probes were opened within the project area, nine of which were also located within the recorded boundary of CA-LAN-235. All work was conducted in the presence of Edgar Perez, who is a qualified Gabrielino-Tongva Native American monitor under contract with CSULB, as required by mitigation measure 2 in Section 3.7 of the 2008 EIR.

Non-destructive methods of subsurface investigation such as ground-penetrating radar were considered for areas that could not be sampled during the Extended Phase I study because they are built or paved over. However, these methods are limited in their detail and unlikely to yield unambiguous data regarding subsurface features, and would provide no data regarding stratigraphy.

3.4.3.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the project would normally have a significant impact on tribal cultural resources if it would:

- 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 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,

- 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 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 the Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.4.3.3 Impact Analysis

TCR-1: 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 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)?

Less than Significant. As discussed in Section 3.4.1 above, site CA-LAN-235 as it is currently mapped overlaps the western boundary of the project area. Site CA-LAN-235 is a contributor to the Puvunga Indian Village Historic District, which is listed under all four criteria for local significance in the NRHP, and was automatically listed in the CRHR. Additionally, a portion of the Puvunga Indian Village Historic District, located to the west of Earl Warren Drive and known as the 22 acres, is actively used for ceremonies by Native American groups.

As part of the proposed project, pedestrian and vehicular access in the area would be modified within the portion of the project site that overlaps with site CA-LAN-235. The concrete pathways surrounding the existing Hillside Office/Commons building would be removed and replaced to appropriately serve the new buildings. Additionally, construction activities on Earl Warren Drive would require clearing and grubbing, demolition of existing concrete pavement, excavation of up to two feet, grading, and paving. Approximately 0.75 acres on Earl Warren Drive would be disturbed. Limited utility trenching for a reclaimed water line would require excavation of 4 to 6 feet along the northern section of the northbound lanes of Earl Warren Drive for approximately 270 linear feet.

The proposed project would be limited to the portion of the site that is already disturbed and built upon, and will not impact the 22 acres which contribute most strongly to the undeveloped feeling of the site, as contrasted against the urbanized nature of surrounding Long Beach. The unpaved and undeveloped part of CA-LAN-235 would not be paved, built-upon, or otherwise temporarily or permanently modified by the proposed project. Construction activities would be limited to the already-developed portion of CA-LAN-235 as Earl Warren Drive would not be widened. Ceremonial features that exist at the 22 acres, such as, but not limited to fire pits, ancestor poles, and decorated trees, would not be impacted by implementation of the proposed project.

Additionally, at least one lane on Earl Warren Drive would remain open to maintain continuous tribal access to parking Lot G2 and the 22 acres throughout project construction. The tribes' ability to access the property and conduct ceremonies would not be infringed during construction of the proposed project. Following construction, the proposed project would generally serve the same function as the existing Hillside Office/Commons building currently does and all lanes on Earl Warren Drive would be reopened. Therefore, operation of the proposed project would not change the tribes' ability to access the 22 acres, conduct ceremonies at the site, or change the undeveloped feeling of the site.

Site CA-LAN-235 has never been evaluated for NRHP eligibility as an individual property. The analysis discussed in Section 3.1, Cultural Resources, considers the project's potential impacts to the eligibility of the Puvunga Indian Village Historic District through its potential impacts to CA-LAN-235. The analysis concludes that the proposed project is not anticipated to impact the eligibility of site CA-LAN-235 or the Puvunga Indian Village Historic District, under any of the four CRHR or NRHP criteria, nor is it anticipated to have a lasting impact on the district's historic integrity.

The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 and listed in the California Register of Historical Resources, and impacts would be less than significant.

TCR-2: 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 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 the Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant with Mitigation. As discussed in TCR-1, the western boundary of the project site overlaps a portion of the CA-LAN-235 site, which is a contributor to the Puvunga Indian Village Historic District. A portion of the Puvunga Indian Village Historic District to the west of Earl Warren Drive, known as the 22 acres, is actively used for ceremonies by Native American groups.

The Puvunga site is often associated by today's Juaneño with the place of creation and the scene of important activities by several culture heroes or gods. If CA-LAN-235 is a part of the Puvunga, then it remains an important location in the development of Gabrielino, Juaneño, Luiseño, and Kumeyaay religion. Whether or not CA-LAN-235 is the historic village of Puvungna is disputed, both among archaeologists and within the Native American community. But regardless of whether the site of the ethnohistoric Puvunga, the 22-acre undeveloped portion west of Earl Warren Drive site has become important to the development of Gabrielino and Juaneño religion over the past approximately 48 years since human remains were discovered on the property in 1972, and particularly in the 40 years since those remains were reinterred within the boundaries of CA-LAN-235. The Puvunga site became a focus for Native American religion during the renaissance of Native American political and cultural life in the 1970s. The location was the site of further cultural change and innovation in 1995 with the introduction of the Ancestor Walk, a new religious ritual but one that is rooted in veneration of the ancestors. Finally, the site is important in the introduction of the Native American ritual of the Bear Dance from northern California to the Los Angeles area.

CA-LAN-235 is primarily unpaved and undeveloped, except for parking lot G2 and a portion of Earl Warren Drive. As discussed in Section 3.1, Cultural Resources, it is believed that any archaeological deposits that may have existed in the project area were destroyed by the construction of Earl Warren Drive and Hillside College in 1969 to 1970, and their subsequent maintenance. Moreover, it is unclear if an intact archaeological site ever existed within the project area. It is likely that any artifacts and shell were deposited within the project area by historic and contemporary construction and landscaping activities and therefore lack scientific value, although they may retain value for descendant Native American communities. Because no intact archaeological deposits were encountered during the archaeological probing conducted for the proposed project that overlaps CA-LAN-235, it is anticipated that no intact deposits exist within the project area.

The unpaved and undeveloped part of CA-LAN-235 would not be paved, built-upon, or otherwise temporarily or permanently modified by the proposed project. Construction would be limited to the already-developed portion of the site as Earl Warren Drive would not be widened. Any soils excavated during project construction would be stockpiled in the designated staging and laydown areas shown in Figure 2-9 in Chapter 2, Project Description. Ceremonial features that exist at the site, such as, but not limited to, fire pits, ancestor poles, and decorated trees, would not be impacted. Additionally, the tribes' ability to access the property and conduct ceremonies likewise would not be infringed by the project during construction or operation.

As required by AB 52, CSULB contacted representatives of five tribes with a letter invitation for consultation mailed on October 15, 2019. Additionally, a letter was sent on October 22, 2019, to one Juaneño tribe that had notified CSULB that it had an interest in the project area. To date, four of the tribes have requested further consultation under AB 52. Through the course of consultation, tribes have requested Native American monitoring and discussed the potential for the project to discover buried resources. No additional tribal cultural resources have been identified as of the writing of this Supplemental EIR.

As discussed in TCR-1, the proposed project would result in a less than significant impact to the Puvunga Indian Village Historic District. Nonetheless, due to the proximity of the project site to the 22 acres, and through government-to-government consultation with tribal representative pursuant to AB 52, impacts related to the 22 acres could be potentially significant. Mitigation Measure TCR-1 is proposed to lessen potential impacts related to potential buried resources through preparation of the CRMDP. Implementation of Mitigation Measure TCR-1, in addition to adherence to Mitigation Measures CR-1 through CR-5, CR-8 and CR-9, provided in Section 3.1, Cultural Resources, of this Draft Supplemental EIR would ensure that impacts related to causing a substantial adverse change in the significance of a tribal cultural resource of a California Native American tribe would be less than significant.

3.4.4 Mitigation Measures

Mitigation Measures CR-1 through CR-5, provided in Section 3.1, Cultural Resources, of this Draft Supplemental EIR and required by the 2008 EIR, are also applicable to tribal cultural resources to reduce potential impacts to such resources. These measures reproduce mitigation measures set forth in the 2008 EIR, with some modification. They require monitoring of all project-related earth-moving construction activity by a professional archaeologist and Native American monitor; define procedures to be followed when informing the construction crew of protocols to be followed in the event of the discovery of unanticipated cultural resources; outline protocols for construction work stoppage in the event of such discovery; define data recovery and curation

procedures in the event of discovery; and define the procedures to be followed in the event of the discovery of human remains.

In addition, Mitigation Measure CR-8, provided in Section 3.1, Cultural Resources, of this Draft Supplemental EIR, is applicable to potential project impacts on tribal cultural resources as well as archaeological resources, and is therefore required to reduce potential impacts to tribal cultural resources.

Mitigation Measure CR-9 requires archaeological monitoring of project-related ground-disturbing activities in all areas with the potential to contain significant cultural deposits by an archaeological monitor working under the guidance of a professionally qualified archaeologist, and by a Native American monitor representing the tribe or tribes traditionally and culturally affiliated with the geographic area of the proposed project. The mitigation measure defines "ground-disturbing activities" and sets forth requirements and recommendations for monitoring and documentation in the event resources are encountered. Refer to Section 3.1 for the full mitigation measure.

Finally, Mitigation Measure TCR-1, below, is also required to reduce potential impacts to tribal cultural resources.

TCR-1: In order to identify and treat tribal cultural resources inadvertently uncovered during the course of construction-related excavations, a project-specific CRMDP shall be developed. The monitoring plan will identify what activities require archaeological and Native American monitoring, describe monitoring procedures, and outline the protocol to be followed in the event of a find. Criteria thresholds will be outlined, and triggers identified for when further consultation is required for the treatment of a find. Key staff and tribal contacts will be identified, and the process of notification and consultation will be specified within the CRMDP. A plan for the final disposition of artifacts will also be outlined within the CRMDP.

3.4.5 Level of Significance after Mitigation

Implementation of Mitigation Measures CR-1 through CR-5 from the 2008 EIR, and project-specific Mitigation Measures CR-8, CR-9, and TCR-1 would ensure that impacts to tribal cultural resources would be less than significant.

3.4.6 Cumulative Impacts

Table 2-2 in Chapter 2, Project Description, of this Supplemental EIR, includes all the approved or proposed development projects that would occur within the proposed project construction timeframe and located on the CSULB campus or within a one-mile radius of the campus. As discussed above, CA-LAN-235 overlaps the western boundary of the project area. The site is a contributor to the Puvunga Indian Village Historic District, which is listed in the NRHP. A portion of the Puvunga Indian Village Historic District, which is listed in the NRHP and located to the west of Earl Warren Drive, is actively used for ceremonies by Native American groups. As discussed above in Section 3.4.3.3, Impact Analysis, the proposed project would not impact that particular part of the district.

As part of the proposed project, pedestrian and vehicular access in the area would be modified within the portion of the project site that overlaps with site CA-LAN-235. The proposed project activities on Earl Warren Drive would occur within the existing road right-of-way and would not extend into the active portion of the tribal cultural resource site. Additionally, the archaeological

probing for this project did not indicate that archaeological deposits exist within that portion of the site that overlaps the project area as no intact cultural deposits were identified. Nonetheless, the proposed project would require archaeological and Native American monitoring during ground-disturbing activities.

The related projects on the CSULB campus listed in Table 2-2 would not overlap with the Puvunga Indian Village Historic District. As discussed above, the proposed project would result in less than significant impacts to tribal cultural resources with the implementation of mitigation measures. These mitigation measures would ensure that the proposed project's impact in conjunction with the related projects would not be cumulatively considerable. Additionally, related projects in the vicinity would also be required to comply with applicable state, federal, and local regulations concerning tribal cultural resources.

4. OTHER CEQA TOPICS

This chapter provides an overview of the environmental effects of the proposed project, including and evaluation of the proposed project's consistency with the certified 2008 EIR, significant unavoidable adverse impacts, significant irreversible environmental changes, and growth-inducing impacts. Cross references are made throughout this chapter to other chapters of the Supplemental EIR where more detailed discussion of the impacts of the proposed project can be found.

4.1 PROJECT CONSISTENCY WITH 2008 CAMPUS MASTER PLAN EIR

The 2008 EIR was prepared pursuant to the State CEQA Guidelines, Article 7, Sections 15086-15087; and the California Public Resources Code Section 21153 that were current at the time. Since then, Appendix G, the Environmental Checklist Form, was updated to address the analysis and mitigation of greenhouse gas emissions (March 18, 2010) and include questions related to impacts to tribal cultural resources (September 27, 2016). In addition, on December 28, 2018, a comprehensive update to the State CEQA Guidelines became effective, which addressed legislative changes to the CEQA, clarified certain portions of the existing CEQA Guidelines, and updated the CEQA Guidelines to be consistent with recent court decisions. As such, the thresholds and analyses contained in this Supplemental EIR reflect the latest CEQA Guidelines.

The evaluation contained in Table 4-1 discusses the consistency of the proposed project with the 2008 EIR. The table reflects the current thresholds in Appendix G of the CEQA Guidelines, lists the significance determination for each resource area based on the analysis in the 2008 EIR, and determines whether the analysis from the 2008 EIR is sufficient, or if further analysis is required. Based on the consistency table prepared for the proposed project and supporting documentation, it was determined that four topics be carried forward for further analysis in this Supplemental EIR, as discussed in Chapter 1, Introduction, Section 1.4, Purpose, Scope, and Legal Authority. The four topics carried forward in this Supplemental EIR are analyzed in Chapter 3, Environmental Setting, Impacts, and Mitigation and include Cultural Resources, Greenhouse Gas Emissions, Energy, and Tribal Cultural Resources.

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
AESTHETICS. Would the project:			
a. Have a substantial adverse effect on a scenic vista?	Less than Significant	☒	☐
b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings and historic buildings within a state scenic highway?	No Impact	☒	☐
c. Substantially degrade the existing visual character or quality the site and its surroundings?	Less than Significant	☒	☐
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	Less than Significant	☒	☐

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
Findings: Section 3.8, Aesthetics, Light, and Glare, of the 2008 EIR determined that the 2008 Campus Master Plan would have a beneficial impact to campus aesthetics with adherence to the plan's architectural guidelines. The proposed project would replace an outdated facility with a one-story building and a two-story building in its place. Consistent with the 2008 EIR, the proposed project would maintain and enhance campus character and the quality of the physical environment; and the proposed buildings would be designed to adhere with the plan's architectural guidelines. The central courtyard would activate the space between the new buildings as well as provide space for socialization, which is an important element in CSULB's campus character. Lighting would be installed as a part of the proposed project to maximize safety while minimizing spillover to surrounding areas. Consistent with the determination in the Initial Study for the 2008 EIR, the proposed project would not result in any impacts to scenic highways. Therefore, similar to the findings of the 2008 EIR, the proposed project would result in less than significant impacts related to aesthetics.			
AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:			
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact	☒	☐
b. Conflict with existing zoning for agricultural use, or a Williamson act contract?	No Impact	☒	☐
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact	☒	☐
d. Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact	☒	☐
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact	☒	☐
Findings: The Initial Study for the 2008 EIR determined that there are no designated farmland or agricultural uses within the campus. No agricultural zoning or Williamson Act contracts exist within the campus or vicinity. The proposed project would replace an outdated facility with two connected buildings in its place. Therefore, consistent with the findings of the 2008 EIR, implementation of the proposed project would result in no impacts related to agricultural or forestry resources.			

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:			
a. Conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant	☒	☐
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?	Significant and Unavoidable	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	Less than Significant	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact	☒	☐

Findings: The 2008 EIR assessed long-term, operational air quality emissions in Section 3.2, Air Quality, and short-term construction emissions in Section 3.9, Construction Effects. The operational analysis found that regional emissions, primarily from passenger vehicles, would exceed the South Coast Air Quality Management District (SCAQMD) significance thresholds for reactive organic gases, nitrogen oxides (NO_X), carbon monoxide (CO), and particulate matter ten microns or less in diameter (PM_{10}). The following mitigation measure was included in the project approval:

- The University will exceed Title 24 energy saving requirements on campus by 15% or more on all new or renovation projects by applying a range of techniques and measures that may include planting trees to provide shade and shadow to buildings; use of energy-efficient lighting in buildings and parking lots; use of light-colored roofing materials; installing energy-efficient appliances; installing automatic lighting on/off controls; use of insulation and double-paned glass windows; connecting buildings to central air and water heating and cooling systems, and/or other measures.

Regarding operations, the proposed project would not change the operational emissions analysis and associated conclusions presented in the 2008 EIR. The proposed project would accommodate the existing student population and would provide associated campus support services to support additional residents on campus. The proposed project would not generate new significant vehicle trips, and would likely reduce regional vehicles miles travels and associated air quality emissions by providing on-campus housing. Additionally, the building envelope would be designed to achieve NZE and would meet LEED Platinum certification criteria. No significant stationary or area sources of long-term, operational emissions have been identified as part of the proposed project. Therefore, the proposed project would not result in new or more severe air quality long-term, operational impacts than identified in the 2008 EIR.

Regarding construction activities, a detailed emissions analysis was completed to assess the potential for the proposed project to change the conclusions presented in the 2008 EIR. Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers and haul trucks traveling to and from the project site. Fugitive dust emissions would primarily result from site preparation (e.g., demolition and grading) activities. NO_X emissions would predominantly result from the use of construction equipment and haul truck trips. The assessment of construction air quality impacts considers all of these emissions sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required

The construction analysis found that the emissions would exceed SCAQMD regional significance thresholds for NO_X and PM_{10}. The following mitigation measures were included in the project approval:

- Exposed surfaces are watered as needed
- Soils stabilizers are applied to disturbed inactive areas as needed.
- Ground cover is replaced quickly in inactive areas.
- All stockpiles are covered with tarps or plastic sheeting.
- All unpaved haul roads are watered daily and all access points used by haul trucks are kept clean during the site grading.
- Speed on unpaved roads is reduced to below 15 miles per hour.
- Trucks carrying contents subject to airborne dispersal are covered.
- Grading and other high-dust activities cease during high wind conditions (wind speeds exceeding a sustained rate of 25 miles an hour).
- Diesel particulate filters are installed on diesel equipment and trucks.
- All construction equipment will be properly tuned.
- To reduce emissions from idling, the contractor shall ensure that all equipment and vehicles not in use for more than 5 minutes are turned off, whenever feasible.
- Low VOC-content paint, stucco, or other architectural coatings materials will be utilized to the extent possible.
- Low VOC-content asphalt and concrete will be utilized to the extent possible.
- The University will continue to comply with SCAQMD Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities) and other pertinent regulations when working on structures containing asbestos, lead, or other toxic materials.
- As appropriate, outdoor activities at the campus will be limited during high-dust and other heavy construction activities, including painting.
- If construction activities occur adjacent to classrooms, student dormitories, health facilities and other sensitive receptors the University will either:
    - Make findings and notify each sensitive receptor that construction activity will not affect such receptor, or
    - Install and maintain filters on interior ventilation system to reduce intake of pollutants until construction activity ceases.

It is mandatory for all construction projects in the South Coast Air Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying soil binders to uncovered areas, re-establishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce fugitive dust emissions associated with construction activities by approximately 61 percent. In addition, the proposed project would be required to comply with the California Air Resources Board Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes.

The air quality analysis conducted for the proposed project is consistent with the methods described in the SCAQMD CEQA Air Quality Handbook (1993 edition), as well as the updates to the CEQA Air Quality Handbook provided on the SCAQMD website. The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod, version 2016.3.2) as a tool for quantifying emissions of air pollutants that will be generated by constructing and operating development projects. Project-specific

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required

information was provided describing the schedule of construction activities and the equipment inventory required.

Table 4-1.1 shows maximum daily regional emissions during construction presented in the 2008 EIR in addition to project-specific emissions. Project-related emissions would not result in a previously undisclosed impact. It is reasonable to state the 2008 EIR air quality analysis, which included all Master Plan projects, accounted for a project similar to the proposed project. Regional emissions would be within the emissions inventory envelope included in the 2008 EIR. The proposed project would still not result in a new impact if maximum daily project-specific emissions are considered in combination the maximum daily emissions in the 2008 EIR. Regarding previously disclosed impacts, particulate matter 2.5 microns or less in diameter ($PM_{2.5}$) emissions would increase by 2.9 percent, which is not considered a more severe impact than that disclosed in the 2008 EIR. Maximum daily NO_X emissions would increase by 10 percent for a brief period of intense construction activities. This would not exacerbate the previously discussed significant impact due to the short-term duration of haul activity. The revised project would not result in new or more severe air quality impacts.

Table 4-1.1
Estimated Peak Day Regional Construction Emissions

Phase	Daily Emissions (Pounds Per Day)				
	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2008 EIR Emissions					
Maximum Regional Daily Emissions	32	298	136	182	48
Regional Significance Threshold	75	100	550	150	55
Exceed Regional Threshold?	No	Yes	No	Yes	No
Proposed Project Emissions					
Building Construction					
Demolition	2.1	16	17	2.2	1.1
Site Preparation	3.1	29	19	5.2	3.0
Building Construction	1.9	11	15	2.8	1.1
Architectural Coating	21	1.7	3.2	0.5	0.2
Roadway Construction					
Demolition	0.9	7.3	8.2	0.6	0.4
Site Preparation	1.0	9.9	7.7	0.9	0.5
Paving	1.5	9.9	11	0.7	0.5
Maximum Regional Daily Emissions	21	29	19	5.2	3.0
Regional Significance Threshold	75	100	550	150	55
Exceed Threshold?	No	No	No	No	No

Note: Emissions modeling files can be found in Appendix C.
Source: Terry A. Hayes Associates Inc., 2019.

The 2008 EIR did not include a detailed analysis of localized exposure to pollutant concentrations. Localized exposure has been assessed for the proposed project in accordance with the SCAQMD

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required

Localized Significance Threshold (LST) methodology. The Basin is divided into 38 Source Receptor Areas, each with its own set of maximum allowable LST values for on-site emissions sources during construction and operations based on locally monitored air quality. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST values for SRA South Coastal LA County 4. LSTs have been established for 1, 2, and 5-acre construction sites and for 25, 50, 100, and 500 meter receptor distances. The LST analysis is based on a 2-acre project site for building construction and a 1-acre project site for roadway construction. The receptor distance was 25 meters for both scenarios. Table 4-1.2 shows that localized pollutant emissions would not exceed the LSTs developed by the SCAQMD. Therefore, the proposed project would result in a less than significant impact related to substantial pollutant concentrations.

Table 4-1.2
Estimated Peak Day Localized Construction Emissions

Phase	Daily Emissions (Pounds Per Day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Building Construction				
Demolition	16	14	1.0	0.8
Site Preparation	29	16	4.1	2.7
Building Construction	10	7.3	0.5	0.5
Architectural Coating	1.6	3.2	0.5	0.2
Maximum Localized Daily Emissions	29	16	4.1	2.7
Localized Significance Threshold	82	842	7	5
Exceed Threshold?	No	No	No	No
Roadway Construction				
Demolition	7.3	7.6	0.4	0.4
Site Preparation	9.7	6.3	0.4	0.4
Paving	9.2	10	0.5	0.4
Maximum Localized Daily Emissions	9.7	10	0.5	0.4
Localized Significance Threshold	57	585	4	3
Exceed Threshold?	No	No	No	No

Note: Emissions modeling files can be found in the Appendix C.
Source: Terry A. Hayes Associates Inc., 2019.

The 2008 EIR concluded that the Master Plan would result in a cumulative air quality impact due to potential overlap with related projects. The South Coast Air Basin is designated as nonattainment of the California Air Quality Standards and the National Ambient Air Quality Standards for ozone and particulate matter. Therefore, there is an ongoing regional cumulative impact associated with these air pollutants. Considering the existing environmental conditions, the SCAQMD propagated guidance that an individual project can emit allowable quantities of these pollutants on a regional scale without significantly contributing to the cumulative impacts. As discussed above, air pollutant emissions associated with construction of the proposed project would not exceed any applicable SCAQMD air quality thresholds of significance. The SCAQMD does not consider individual project emissions of lesser magnitude than the

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
mass daily thresholds to be cumulatively considerable. The proposed project would not result in a new cumulatively considerable impact. In addition, in accordance with SCAQMD guidance, the proposed project would not exacerbate the existing cumulatively considerable impact as project-specific emissions would not be significant.			
BIOLOGICAL RESOURCES. Would the project:			
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	No Impact	☒	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	No Impact	☒	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No Impact	☒	☐
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?	No Impact	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact	☒	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact	☒	☐
Findings: The proposed project would replace an outdated facility with two connected buildings in its place. As described in the Initial Study for the 2008 EIR, the campus is surrounded by and consists of urban development. No suitable habitat within the campus exists for native resident or migratory fish or wildlife species, and no sensitive species are known to live, visit, or forage on campus. There are no wildlife corridors, riparian habitats, sensitive natural communities, or wetlands within campus. The campus is not subject to any habitat conservation plan or local policies regarding biological resources. Up to 55 landscape trees would be removed with the project to allow for construction. The proposed project would comply with CSULB's "Campus Forest" initiative aims to replace trees on at least a one-for-one basis either within the project site or elsewhere on campus. Therefore, consistent with the findings of the 2008 EIR, implementation of the proposed project would result in no impacts related to biological resources.			
CULTURAL RESOURCES. Would the project:			
a. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	No Impact	☐	☒

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	Less than Significant with Mitigation	☐	☒
c. Disturb any human remains, including those interred outside of formal cemeteries?	Less than Significant with Mitigation	☐	☒

Findings: At the time the 2008 Campus Master Plan was prepared, the existing Hillside Office/Commons building was not of historic age. As such, the Initial Study for the 2008 EIR determined that impacts related to historic resources would not occur. As part of this project, the existing Hillside Office/Commons building, which is proposed to be demolished, is now of an age that qualifies it as a potentially historic resource. The existing Hillside Office/Commons building was recently evaluated in terms of historical significance in the Historical Resources Assessment prepared for this project (Appendix A). The Hillside College residence hall complex (excluding Los Cerritos Hall, Los Alamitos Hall, and the International House) was found eligible for inclusion in the National Register of Historic Places and California Register of Historical Resources, and therefore is considered a potentially historic resource. Therefore, this Supplemental EIR addresses the proposed project's potential impacts associated with demolition of the existing building in Section 3.1, Cultural Resources.

The 2008 EIR determined that construction of new and replacement facilities may potentially disturb unknown archaeological resources or human remains and mitigation would be required to reduce impacts to a less than significant level. Mitigation measures include archaeological and Native American monitoring during earth-moving construction activities; construction crew training; stop work if an inadvertent discovery of archaeological resource occurs; Phase III data recovery, if required; and stop work and notification of the Los Angeles County Coroner's Office if any human skeletal remains are found. These mitigation measures would also be applicable to the proposed project. Nonetheless, this Supplemental EIR evaluates impacts related to archaeological resources located in the vicinity of the proposed project and human remains in Section 3.1, Cultural Resources.

ENERGY. Would the project:			
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Not previously evaluated	☐	☒
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Not previously evaluated	☐	☒

Findings: At the time the 2008 Campus Master Plan was prepared, specific details related to energy use were not available and environmental impacts were evaluated in the 2008 EIR to the extent possible given the level of project information available at the time. The Campus Master Plan's potential impacts related to energy were not previously analyzed in detail in the Program EIR. Therefore, this Supplemental EIR analysis addresses the projected energy consumption associated with construction and operation of the proposed project in Section 3.2, Energy.

GEOLOGY AND SOILS. Would the project:			
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	No Impact	☒	☐

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
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.	Less than Significant	☒	☐
ii) Strong seismic ground shaking?	Less than Significant	☒	☐
iii) Seismic-related ground failure, including liquefaction?	Less than Significant	☒	☐
iv) Landslides?	No Impact	☒	☐
b. Result in substantial soil erosion, loss of topsoil, or changes in topography or unstable soil conditions from excavation, grading, or fill?	Less than Significant	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Less than Significant	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less than Significant	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Less than Significant	☒	☐
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than Significant with Mitigation	☒	☐

Findings: The Initial Study for the 2008 EIR determined that compliance with all applicable regulations and standard university procedures designed for geotechnical and seismic safety would ensure that impacts related to seismicity, liquefaction, erosion, and soils would be less than significant level. In addition, the Initial Study for the 2008 EIR determined no impacts related to landslides, unstable soils, or alternative wastewater disposal systems would occur. The proposed project would comply with all applicable regulations and standard university procedures for geotechnical and seismic safety. Consistent with the findings of the 2008 EIR, implementation of the proposed project would result in less than significant impacts related to geology and soils.

Paleontological resources were previously evaluated in the Initial Study for the 2008 EIR under Cultural Resources. It was determined that no paleontological resources are known to be located on campus or in the vicinity. As discussed in Section 3.7, Archaeological Resources, of the 2008 EIR, if fossilized shells, plants, or bones are discovered during construction of an individual project, work shall be suspended in the immediate vicinity of the finds, and the potential significance of the resources shall be evaluated by a qualified specialist. This mitigation measure would also be applicable to the proposed project to ensure impacts would be less than significant. No new or more severe impacts related to paleontological resources would occur as a result of the proposed project.

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
GREENHOUSE GAS EMISSIONS. Would the project:			
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Not previously evaluated	☐	☒
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Not previously evaluated	☐	☒
Findings: The 2008 EIR did not address potential impacts to greenhouse gas emissions because it was prepared prior to the 2010 amendment to the State CEQA Guidelines requiring analysis and mitigation of greenhouse gas emissions. Therefore, this Supplemental EIR analysis addresses potential impacts related to greenhouse gas emissions in Section 3.3, Greenhouse Gas Emissions.			
HAZARDS AND HAZARDOUS MATERIALS. Would the project:			
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than Significant	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than Significant	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact	☒	☐
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact	☒	☐
Findings: The handling, movement, storage, and disposal of hazardous materials would be monitored by the University's environmental health and safety staff. Consistent with the analysis in the Initial Study for the 2008 EIR, the proposed buildings would not involve the routine use, transport, or disposal of hazardous materials. On-site hazardous materials would be limited to small amounts of everyday cleaning and common chemicals used for landscaping and maintenance. Additionally, the Initial Study for the 2008 EIR determined that no impact would occur related to a public use airport or private airstrip, emergency			

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
response or evacuation plan, or wildland fires. Consistent with the findings of the 2008 EIR, implementation of the proposed project would result in less than significant impacts related to hazardous materials.			
HYDROLOGY AND WATER QUALITY. Would the project:			
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less than Significant	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than Significant	☒	☐
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 that would:			
i) Result in substantial erosion or siltation on- or off-site?	Less than Significant	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	Less than Significant	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Less than Significant	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Not previously evaluated	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Not previously evaluated	☒	☐

Findings: Sections 3.6, Water Supply and Quality, and 3.9, Construction Effects, of the 2008 EIR discuss long-term and construction-related impacts to water quality, respectively. The 2008 EIR determined that impacts related to water quality would be less than significant with compliance to applicable regulations for stormwater runoff, including preparation and implementation of Standard Urban Water Mitigation Plans, adherence to existing National Pollutant Discharge Elimination System requirements, and implementation of best management practices, such as implementation of a Storm Water Pollution Prevention Plan. As discussed in the 2008 EIR, standard requirements would be incorporated into the final site plan for each individual facility on campus, including for the proposed project. Consistent with the findings of the 2008 EIR, implementation of the proposed project would result in less than significant impacts related to water quality and would not conflict with any water quality control plan.

Drainage is discussed in Section 3.5, Utilities and Service Systems, of the 2008 EIR. The 2008 EIR determined that impacts associated with the minor improvements to existing drainage would be less than significant. As discussed above, compliance with applicable regulations for stormwater runoff would ensure that impacts related to water quality, erosion, siltation, and surface runoff resulting in flooding would be less than significant. The proposed project may increase the area of impermeable surfaces due to the larger footprint of the proposed commons and HRL buildings than the existing Hillside Office/Commons, as

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required

well as proposed pathways; however, the impact to existing drainage pattern would be minimal as the natural conditions and open space of the project site would be maintained. Therefore, the proposed project would not result in an exceedance in the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Consistent with findings of the 2008 EIR, implementation of the proposed project would result in less than significant impacts to the existing drainage pattern of the site.

The 2008 EIR determined that groundwater pumping is expected to remain similar to current levels through 2030 as supplies of recycled water would supplement any additional water use from implementation of the Campus Master Plan. Implementation of mitigation measures, including use of reclaimed water for irrigation, installation of low-use water fixtures, and coordination with the Long Beach Water Department, would ensure that proper water conservation is pursued. As described in Section 2.6, Project Components, of the Supplemental EIR, the proposed project would include sustainable design features, such as use of purple pipe (recycled water pipelines), which would save 4,300 gallons of potable water a day, or approximately 1.6 million gallons annually. In addition, the proposed project would install bioswales so that 100 percent of the site's stormwater would be managed on site via capture and/or infiltration with groundwater recharge. As such, impacts related to groundwater supplies, groundwater recharge, or conflict with a sustainable groundwater management plan would not occur. Implementation of the proposed project would result in a less than significant impact, and no new or more severe impacts would occur as a result of the proposed project.

The proposed project would construct new structures within the existing campus. Consistent with findings of the 2008 EIR, no substantial change in exposure to flood hazards would occur. The project site is located in an area of minimal flood hazard, as designated by the Federal Emergency Management Agency (Federal Emergency Management Agency n.d.). Additionally, as discussed in the Initial Study for the 2008 EIR, no waterbodies are located uphill from campus, and therefore, the campus is not exposed to seiche. The campus is located at a distance of approximately 3 miles from the ocean and is not susceptible to damage from tsunami. Therefore, implementation of the proposed project would result in no impact related to risk of release to pollutants due to project inundation from flood hazard, tsunami, or seiche.

LAND USE AND PLANNING. Would the project:			
a. Physically divide an established community?	No Impact	☒	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact	☒	☐

Findings: The proposed project is included in the 2008 Campus Master Plan, which guides development of the campus. The proposed project would replace an outdated facility with two connected buildings in its place. As such, the proposed project would not divide any established community. The proposed project would not impact any off-campus uses and would conflict with any land use plans, policies, or regulations. Consistent with the findings of the 2008 EIR, implementation of the proposed project would result in no impact to land use and planning.

MINERAL RESOURCES. Would the project:			
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact	☒	☐

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact	☒	☐

Findings: The Initial Study for the 2008 EIR determined that the campus is not known to contain any important mineral resources. As such, loss of any such resources would not occur with implementation of the proposed project. Consistent with the findings of the 2008 EIR, implementation of the proposed project would result in no impact to mineral resources.

NOISE. Would the project result in:			
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Significant and Unavoidable	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	Significant and Unavoidable	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact	☒	☐

Findings: The 2008 EIR determined that implementation of the 2008 Campus Master Plan would result in significant and unavoidable impacts related to construction noise and vibration even with the implementation of mitigation measures. Mitigation measures include use of muffled construction equipment, where possible; proper equipment maintenance; locating noise construction equipment away from residential areas, where possible; adherence to the City of Long Beach regulations for construction hours; and measures to reduce impacts associated with sustained high-noise construction activities (temporary noise barriers, scheduling, etc.). As the proposed project would require demolition of the existing Hillside Office/Commons building and construction of the new commons and HRL buildings, these mitigation measures would be also applicable to the proposed project.

Long-term impacts related to traffic noise and other campus activities would result in less than significant impacts. Mitigation measures would be required to reduce noise impacts associated with athletic events at the soccer field facility on campus. These mitigation measures would not be applicable to the proposed project. Additionally, the Initial Study for the 2008 EIR determined that no impact would occur related to a public use airport or private airstrip. No new or more severe impacts related to noise would occur as a result of the proposed project.

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

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
Findings: As discussed in the Initial Study for the 2008 EIR, the implementation of the 2008 Campus Master Plan provides for additional on-campus housing and would not displace any housing or people. Furthermore, the 2008 Campus Master Plan is designed to accommodate for the projected increase in student enrollment based on growth and development in the area, and would not induce population growth or housing demand. The proposed project would not displace the two single apartments within the existing Hillside Office/Commons as five new units would be constructed in the proposed commons building. Additionally, the proposed project is designed to accommodate the projected increase in student enrollment by providing the necessary facilities improvements. Therefore, consistent with the findings of the 2008 EIR, implementation of the proposed project would result in less than significant impacts to population and housing.			
PUBLIC SERVICES. Would the project:			
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:			
i) Fire protection?	Less than Significant	☒	☐
ii) Police protection?	Less than Significant	☒	☐
iii) Schools?	No Impact	☒	☐
iv) Parks?	No Impact	☒	☐
v) Other public facilities?	No Impact	☒	☐
Findings: The 2008 EIR determined that implementation of the 2008 Campus Master Plan would result in less than significant impacts related to fire and police protection. Implementation of the 2008 Campus Master Plan would result in an incremental increase in demand for fire prevention and suppression services from the Long Beach Fire Department and police protection services from the University, however, enhanced operation procedures, continued trainings, incorporation of fire suppression and security features into building design would maintain acceptable response times, service ratios, and other performance objectives. No new local or regional fire or police facilities would be required. The proposed project would replace an outdated facility on campus with two connected buildings in its place. Consistent with the 2008 EIR, the proposed buildings would include safety and security features such as fire suppression and lighting, and no new fire or police facilities would be required. Impacts would be less than significant. As discussed in the Initial Study for the 2008 EIR, the 2008 Campus Master Plan provides the needed facilities to accommodate the projected student enrollment and associated support services. Open space within the campus would be maintained or enhanced. Implementation of the Campus Master Plan would not generate a need for construction of new public facilities in the surrounding community. The proposed project would replace an outdated facility with two buildings in its place that would provide space for support services for existing students. As such, it would not generate additional demand for schools, parks, or other public facilities. Consistent with the findings of the 2008 EIR, implementation of the proposed project would result in no impacts to schools, parks, or other public facilities.			

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
RECREATION.			
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Less than Significant	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	Less than Significant	☒	☐
Findings: As discussed in the Initial Study for the 2008 EIR, the 2008 Campus Master Plan includes preservation and enhancement of on-campus open space, and no construction of neighborhood or regional parks or other recreation facilities would be required. The proposed project would replace an outdated facility with two connected buildings in its place. Consistent with the 2008 EIR, the proposed project would maintain and enhance campus open space, and impacts would be less than significant.			
TRANSPORTATION. Would the project:			
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No Impact	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Not previously evaluated	☐	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact	☒	☐
d. Result in inadequate emergency access?	No Impact	☒	☐
Findings: The Initial Study for the 2008 EIR determined that no impact would occur related to transit, roadway, bicycle and pedestrian facilities, hazardous design features, or emergency access. Consistent with the determination made in the 2008 EIR, the proposed project would not include any hazardous design features or incompatible uses as it would replace an outdated facility with new facilities, and emergency access would be maintained at all times during construction and operation. Additionally, the 2008 EIR determined that construction impacts would be less than significant with mitigation. The mitigation measures would also be applicable to the proposed project, including use of flag person to direct traffic, avoidance of residential areas for construction truck routes and peak travel times on Interstate 405, Interstate 607, and State Route 22, provision of temporary alternate routes for pedestrians and bicyclists, and temporary relocation of transit facilities on campus.			

At the time the 2008 Campus Master Plan was prepared, Level of Service (LOS) was used to evaluate CEQA impacts to the transportation system. As discussed in Section 1.3, Project Consistency with Campus Master Plan EIR, of this Supplemental EIR, a comprehensive update to the State CEQA Guidelines became effective in 2018, which addressed legislative changes to the CEQA. One of the legislative changes included Senate Bill 743, which required development of an alternative metric to LOS for determining significant impacts to the transportation system. Vehicle Miles of Travel (VMT) identified as the new metric in assessing impacts associated with vehicle travel. The State CEQA Guidelines changes also indicate that a project's effect on automobile delay shall not constitute a significant environmental impact, except possibly when analyzing a transportation project. Therefore, an updated project-level analysis to assess LOS was not conducted for the proposed project.

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
The 2019 *CSU Transportation Impact Study Manual* provides procedures for screening out projects from detailed VMT analysis and for conducting detailed analysis, if a project is not screened out. Based on the manual, the following projects are screened out from VMT assessment due to their VMT reducing nature: • Local serving retail that is less than 50,000 sq. ft., or retail that is located wholly within the core of a CSU campus; • Childcare centers that serve students, faculty, and staff families; • Student services facilities; • Parking facilities that serve the campus demand and do not create "too much parking"; • Healthcare centers serving students, faculty, and staff; and • Recreation/fitness/wellness centers that serve students, faculty, and staff. • Projects generating less than 110 vehicle trips per day, as noted in the OPR Technical Advisory. The proposed project would construct a new HRL building to replace the recently demolished Parkside complex housing administration building, as well as expand the commons area and associated space for support services for Hillside College residents. As such, the proposed project would constitute student services facilities. The proposed project is not expected to generate additional vehicle trips during operation since the buildings would serve existing students. Therefore, the proposed project would be screened out from having to conducted detailed VMT analysis and the VMT impact would be less than significant.			
TRIBAL CULTURAL RESOURCES. 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:			
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	Not previously evaluated	☐	☒
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Not previously evaluated	☐	☒
Findings: Tribal cultural resources are briefly discussed in Section 3.7, Archaeological Resources, of the 2008 EIR. Section 3.7 of the 2008 EIR describes the University's policy on Native American Burial Remains and consultation with Native American representatives. However, the 2008 EIR was prepared prior to the 2016 amendments to the State CEQA Guidelines to include questions related to impacts to tribal cultural resources. Therefore, this Supplemental EIR analysis addresses the project-level and cumulative impacts on tribal cultural resources in Section 3.4 Tribal Cultural Resources.			

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
UTILITIES AND SERVICE SYSTEMS. Would the project:			
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?	Less than Significant	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Less than Significant	☒	☐
c. Result in a determination by the wastewater treatment provider that 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	☒	☐
d. Generate solid waste in excess of state or local standards, or in excess of the future capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Significant and Unavoidable	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact	☒	☐

Findings: Section 3.5, Utilities and Service Systems, of the 2008 EIR determined that implementation of the 2008 Campus Master Plan would not require the relocation or construction of new or expanded local or regional facilities for water, wastewater, stormwater, or solid waste. Water supplies are discussed in Section 3.6, Water Supply and Quality, of the 2008 EIR. The 2008 EIR determined that impacts related to water supplies would be less than significant, but mitigation measures would be implemented to ensure proper water conservation is pursued. The mitigation measures, which include use of reclaimed water for irrigation, installation of low-use water fixtures, and coordination with the Long Beach Water Department, would also apply to the proposed project. The proposed project would replace an outdated facility with two sustainably designed buildings in its place. Sustainable design features, such as use of purple pipe (recycled water pipelines) would save approximately 1.6 million gallons annually. In addition, the proposed project would install bioswales so that 100 percent of the site's stormwater would be managed on site via capture and/or infiltration with groundwater recharge. Therefore, the proposed project would be consistent with the 2008 EIR determination, and impacts related to water, wastewater, and stormwater would be less than significant.

The proposed project would also comply with mitigation measures related to construction waste discussed in Section 3.9, Construction Effects, of the 2008 EIR. Mitigation measures, including recycling inert materials and complying with applicable regulations for hazardous waste, would be implemented to minimize the impacts of construction waste. The mitigation measures would also be applicable to the proposed project. However, as discussed in Section 5.0, Cumulative and Long-term Effects, of the 2008 EIR, cumulative impacts related to solid waste is considered potentially significant and unavoidable. The proposed project would comply with the mitigation measures described for the 2008 EIR. No new or more severe impacts related to generation of solid waste would occur as a result of the proposed project.

Impacts related to electric power and natural gas are discussed in Section 3.2, Energy, of this Supplemental EIR. Similar to existing conditions, electric power and natural gas for construction and

Table 4-1
Project Consistency with 2008 EIR

Issues and Supporting Data Sources	2008 EIR Determination	2008 EIR Sufficient	Further Analysis Required
operation of the project would be supplied by Southern California Edison and Southern California Gas Company, respectively. The proposed project includes sustainable design features to meet and/or exceed energy goals, including exceeding Title 24 energy requirements and attaining LEED Platinum Rating. Therefore, the proposed project would not require the relocation or construction of new or expanded electric power or natural gas facilities. Impacts would be less than significant.			
WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:			
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	Not previously evaluated	☐	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Not previously evaluated	☐	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Not previously evaluated	☐	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Not previously evaluated	☐	☐
Findings: The 2008 Campus Master Plan EIR did not address potential impacts to related to wildfire because it was prepared prior to the 2018 amendment to the State CEQA Guidelines to include a section on wildfire. According to the California Department of Forestry and Fire Protection Fire Hazard Severity Zone Maps, the City of Long Beach and project site are not located in a state responsibility area or lands classified as very high fire severity zones (California Department of Forestry and Fire Protection 2011). Therefore, implementation of the Campus Master Plan and the proposed project would have no associated wildfire impacts.			

4.2 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

This section is prepared in accordance with Section 15126.2(c) of the CEQA Guidelines, which requires the discussion of any significant environmental effects that cannot be avoided if a project is implemented. These include impacts that can be mitigated, but cannot be reduced to a less than significant level. An analysis of environmental impacts caused by the proposed project has been conducted and is contained in Chapter 3 of this Supplemental EIR. Four environmental issue areas were analyzed in detail in Chapter 3. According to the environmental impact analysis, the proposed project would result in the following significant and unavoidable adverse impacts related to historic resources (Section 3.1, Cultural Resources).

Cultural Resources

As discussed in Section 3.1, Cultural Resources, the demolition of the existing office/commons building would cause a substantial adverse change to the historic district by removing its overall integrity of design, setting, feeling, or association. Mitigation Measures CR-6 and CR-7 would be implemented to record and document the historic structure. However, even with implementation of the mitigation measures, demolition of the existing office/commons building would result in a substantial adverse change to the historic district that could not be fully mitigated. Therefore, implementation of the proposed project would result in a significant and unavoidable impact to the historical resource.

4.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Public Resources Code Section 21100(b)(2)(B) and Section 15126.2(c) of the CEQA Guidelines require that an EIR analyze the extent to which the proposed project's primary and secondary effects would impact the environment and commit non-renewable resources to uses that future generations will not be able to reverse. Construction of the proposed project would result in the use of non-renewable resources, including fossil fuels, natural gas, water, and building materials, such as concrete. As described in Chapter 2, Project Description, demolition and construction debris would be recycled to the maximum extent possible. The proposed project does not represent an uncommon construction project that would use an extraordinary amount of raw material in comparison to other development projects of similar scope and magnitude. Additionally, the proposed project would incorporate energy efficient, sustainable, water and waste efficient, and resilient features to achieve LEED Platinum Rating, NZE Rating, and Full Living Building Challenge Certification. The materials used for the interior, exterior and subterranean areas of the buildings would be vetted for compliance with the Red List, prohibiting the use of any materials which may have chemicals of concern. Materials with environmental product declarations, which disclose a product's life cycle assessment and includes its global warming potential, would be used to the extent possible. Construction waste management would be implemented using a net positive waste strategy which includes diverting 99 percent of metal, paper, cardboard, and 100 percent of soil and biomass; diverting 95 percent of rigid foam, carpet, and insulation; diverting 90 percent of all other materials; and reuse of existing brick and diverting 95 percent of total construction and demolition debris from landfills. Materials with high solar reflectance indexes would be used to help mitigate heat and allow light to reflect naturally throughout the space.

Design of the buildings would include operable windows, which would allow for passive ventilation strategies, and provide direct access to outdoor air and natural daylight. State of the art enhanced mechanical systems would optimize energy efficiency and contribute to NZE goals. Enhanced filtration media would be used at all mechanical systems to enhance air quality throughout

occupancy, which would increase volumes of fresh outdoor air. Recycled water pipelines would be installed to save approximately 4,300 gallons of potable water daily. In addition, energy and water submeters would be employed to optimize building technology as well as inform ongoing operations and maintenance demands.

Outside, on-site solar PV would be installed on the roofs and canopy to support NZE design. The canopy-covered courtyard would provide shade as well as support and activate the space between the buildings. Secured and covered bike storage would be provided to support CSULB's goal of reducing single-commuter vehicular traffic. Bioswales with native riparian planting would be installed throughout the western and northern perimeters of the project site and flow towards the proposed bioretention area. Bioswale, open space, and rainwater management would capture and/or infiltrate 100 percent of stormwater for groundwater recharge.

Following construction, the air would be flushed and indoor air quality would be tested for presence of particulate matter, formaldehyde, smoke, VOCs and other chemicals of concern prior to occupancy.

The proposed project is not anticipated to consume substantial amount of energy in a wasteful manner, and it would not result in significant impacts from consumption of utilities. Although irreversible environmental changes would result from implementation of the proposed project, such changes would not be considered significant.

4.4 GROWTH-INDUCING IMPACTS

Section 15125.2(e) of the CEQA Guidelines requires a discussion of the ways in which a project could induce growth. This includes way in which a project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Section 15126.2(e) of the CEQA Guidelines states that the EIR should:

> "Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are project which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place without the implementation of the proposed project. Typically, the growth-inducing potential of a project would be considered significant if it results in growth or population concentration that exceeds those assumptions included in pertinent master plans, land use plans, or projections made by regional planning authorities. However, the creation of growth-inducing potential does not automatically lead to growth, whether it would be below or in exceedance of a projected level.

The environmental effects of induced growth are secondary or indirect impacts of the proposed project. Secondary effects of growth could result in significant, adverse environmental impacts, which could include increased demand on community public services, increased traffic and noise,

degradation of air and water quality, and conversion of agricultural land and open space to developed uses.

As discussed in Chapter 2, Project Description, the proposed project would construct a new HRL office building and a new commons building in place of the existing Hillside Office/Commons building. The proposed commons building would include five one- and two-bedroom apartments, replacing the two one-bedroom apartments that would be lost to demolition of the existing Hillside Office/Commons building. Although the proposed project would increase the number of residential units at the project site, the proposed project is consistent with the growing enrollment numbers identified in the 2008 Campus Master Plan, and would provide campus support services to support the additional residents on campus. Additionally, the proposed project would include sustainable design features to reduce energy and water usage. As such, the proposed project would accommodate the projected growth included in the 2008 Campus Master Plan and would not result in a significant direct or indirect growth-inducing impact.

4.5 MITIGATION MEASURES APPLICABLE TO THE PROPOSED PROJECT

The mitigation measures listed below are from the 2008 EIR and would be applicable to the proposed project. CSULB, as the CEQA lead agency, is responsible for implementing the approved mitigation.

Air Quality

1. Exposed surfaces are watered as needed
2. Soils stabilizers are applied to disturbed inactive areas as needed.
3. Ground cover is replaced quickly in inactive areas.
4. All stockpiles are covered with tarps or plastic sheeting.
5. All unpaved haul roads are watered daily and all access points used by haul trucks are kept clean during the site grading.
6. Speed on unpaved roads is reduced to below 15 miles per hour.
7. Trucks carrying contents subject to airborne dispersal are covered.
8. Grading and other high-dust activities cease during high wind conditions (wind speeds exceeding a sustained rate of 25 miles an hour).
9. Diesel particulate filters are installed on diesel equipment and trucks.
10. All construction equipment will be properly tuned.
11. To reduce emissions from idling, the contractor shall ensure that all equipment and vehicles not in use for more than 5 minutes are turned off, whenever feasible.
12. Low VOC-content paint, stucco, or other architectural coatings materials will be utilized to the extent possible.
13. Low VOC-content asphalt and concrete will be utilized to the extent possible.

14. The University will continue to comply with SCAQMD Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities) and other pertinent regulations when working on structures containing asbestos, lead, or other toxic materials.

15. As appropriate, outdoor activities at the campus will be limited during high-dust and other heavy construction activities, including painting.

16. If construction activities occur adjacent to classrooms, student dormitories, health facilities and other sensitive receptors the University will either:

    a. Make findings and notify each sensitive receptor that construction activity will not affect such receptor, or

    b. Install and maintain filters on interior ventilation system to reduce intake of pollutants until construction activity ceases.

17. The University will exceed Title 24 energy saving requirements on campus by 15% or more on all new or renovation projects by applying a range of techniques and measures that may include planting trees to provide shade and shadow to buildings; use of energy-efficient lighting in buildings and parking lots; use of light-colored roofing materials; installing energy-efficient appliances; installing automatic lighting on/off controls; use of insulation and double-paned glass windows; connecting buildings to central air and water heating and cooling systems, and/or other measures.

Geology and Soils

1. If fossilized shells, plants or bones are discovered during construction of an individual project, work shall be suspended in the immediate vicinity of the finds, and the potential significance of the resources shall be evaluated by a qualified specialist.

Hydrology and Water Quality

1. The use of reclaimed water for irrigation will continue to be expanded to the extent feasible.

2. The University will continue to implement policies and programs to reduce water use, such as installing low-use water fixtures, waterless urinals, and/or other measures.

3. The University will continue to coordinate with the Long Beach Water Department to reduce water use during water supply shortages.

Noise

1. Muffled construction equipment will be used wherever possible.

2. The contractor will ensure that each piece of operating equipment is in good working condition and that noise suppression features, such as engine mufflers and enclosures, are working and fitted properly.

3. The contractor will locate noisy construction equipment as far as possible from residential areas.

4. Construction hours will be consistent with the City of Long Beach regulations to between 7 a.m. and 7 p.m. on weekdays and between 9 a.m. and 6 p.m. on Saturdays. No construction will take place on Sundays or federal holidays.

5. If a sustained high-noise construction activity takes place within 100 feet from classrooms or other noise sensitive uses on campus, measures will be taken to limit the amount of noise affecting the sensitive receptor. These measures may include scheduling the activity when classes are not in session or the sensitive receptor is not use, providing a temporary barrier of no less than 6 feet in height made of wood or other similar materials; and/or other measures.

Transportation

1. A flag person will be employed as needed to direct traffic when heavy construction vehicles enter the campus from Bellflower Boulevard, Palo Verde Avenue, 7th Street, and Atherton Street.

2. Construction trucks will avoid travel on residential areas to access campus and use the City of Long Beach designated truck routes to travel to and from campus.

3. Construction-related truck traffic will be scheduled to avoid peak travel time on the I-405 and I-605 freeways, and State Route 22 (SR-22), as feasible.

4. If major pedestrian or bicycle routes on campus are temporarily blocked by construction activities, alternate routes around construction areas will be provided, to the extent feasible. These alternate routes will be posted on campus for the duration of construction.

5. If any bus stop or other transit facility on campus is obstructed by construction activity, the University, in cooperation with the transit service providers, will temporarily relocate such transit facility on campus as appropriate.

Utilities and Service Systems

1. Demolition and construction inert materials, including vegetative matter, asphalt, concrete, and other recyclable materials will be recycled to the extent feasible.

2. Demolition materials that contain hazardous substances will be disposed of at certified disposal facilities in strict compliance with all applicable regulations.

5. ALTERNATIVES

5.1 INTRODUCTION

Alternatives to the proposed project have been considered in this Supplemental EIR to explore potential means to mitigate or avoid the significant environmental impacts associated with implementation of the project while still achieving the primary objectives of the project. Pursuant to Section 15126.6(a) of the CEQA Guidelines, an EIR shall describe a range of reasonable alternatives, which may include alternatives to the location of the proposed project, which would feasibly attain most of the basic objectives of the proposed project but would avoid or substantially lessen any of the significant effects of the proposed project, and evaluate the comparative merits of the alternatives. The CEQA Guidelines also state that an EIR need not consider every conceivable alternative or consider alternatives that are infeasible. Under CEQA, the factors that can determine feasibility are site suitability, economic limitations, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, and jurisdictional boundaries. An EIR should present a reasonable range of feasible alternatives that will support informed decision making and public participation regarding the potential environmental consequences of a project and possible means to address those consequences. An EIR does not need to consider alternatives whose effects cannot be reasonably ascertained and whose implementation is remote or speculative.

The alternatives analysis must also include a comparative evaluation of the No Project Alternative in accordance with Section 15126.6(e) of the CEQA Guidelines to determine the consequences of not implementing the proposed project. Through the identification, evaluation, and comparison of alternatives, the relative advantages and disadvantages of each alternative compared with the proposed project can be determined.

Project Objectives

The proposed project would remain consistent with the major objectives of the 2008 Campus Master Plan to:

- Share in the need to accommodate the demand for higher education by students in California by providing the necessary facilities and improvements.
- Improve, update, and replace outdated, inefficient and obsolete facilities.
- Provide high quality services that enhance access and usability.
- Maintain and enhance campus open space, character, and the quality of the physical environment.

Specific objectives of the proposed project are as follows:

- Replace existing residential support facilities that are too outdated and undersized to support the full range of needed support services.
- Site the proposed HRL office building and proposed commons building in the same location as the existing, original Hillside Office/Commons building, to maintain the historic spatial relationship to the existing Hillside College Complex residential buildings,

hardscape, and landscape that comprise the historic district, as well as to maintain the building's presence and accessibility along Earl Warren Drive.

- Site the proposed HRL office building and commons building within the Hillside College Complex in a way that best utilizes existing parking that is convenient and accessible for campus students, employees and visitors.

- Provide a centralized and accessible HRL office building and commons building for students in the Hillside and Parkside College Complexes, to provide a safe and comfortable living environment for students.

- Provide high-quality programming services for students that includes adequate space for commons, administration, and HRL staff.

- Provide open space for students to recreate and socialize.

- Be consistent with campus-wide sustainability policies to achieve net-zero/net-positive goals.

- Ensure that the new HRL office building and commons building are consistent with the 2008 Master Plan's site and architectural guidelines.

5.2 ALTERNATIVES DEVELOPMENT PROCESS

In order to fulfill the project objectives, several alternatives to the proposed project have been considered, including alternative designs, to accommodate the programming required for the project. The design alternatives include renovation of the existing Hillside Commons/Office building; demolition of the existing building and construction of a new building; and a split program option that would include renovation of the existing building to accommodate some uses and construction of a new building to accommodate the remainder of the uses.

Additionally, Section 15126.6(f)(2) of the CEQA Guidelines requires that an EIR consider alternative locations to the project site. Two alternative sites have been identified for the proposed project, including the Corner Site and the Beach Drive Site. The Corner Site is an approximately 10,000-square-foot parcel at the corner of Earl Warren Drive and Beach Drive, approximately 340 feet southwest of the proposed project site. The Beach Drive Site comprises an approximately 21,000-square-foot parcel fronting Beach Drive approximately 300 feet south of the proposed project site. Both alternative sites are currently vacant and consist of landscaped lawn areas with ornamental trees scattered throughout the sites. The Beach Drive Site is currently used as an informal site for outdoor campus events. The locations of the alternative sites are shown on Figure 5-1.

The range of alternatives has been refined through the design process to determine those alternatives that could be eliminated from further consideration and those alternatives that would be carried forward for detailed analysis in this Supplemental EIR. A discussion of the alternative that was considered but ultimately dismissed and the reasons for its elimination is included in subsection 5.3 below. Subsection 5.4 provides an overview of the alternatives that have been carried forward for detailed analysis in this EIR.

Source: Esri, 2019.

0 100 200 Feet

Project Site
Existing Hillside Office/Commons Building
Hillside Residential College Boundary
Alternative Sites

Figure 5-1
Alternative Site Locations

5.3 ALTERNATIVES CONSIDERED BUT DISMISSED FROM DETAILED ANALYSIS

Section 15126.6(c) of the CEQA Guidelines requires that an EIR identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Among factors that may be used to eliminate alternatives from detailed consideration in the EIR are: (1) failure to meet most of the basic project objectives, (2) infeasibility, and (3) inability to avoid significant environmental impacts. The following alternative was eliminated from further consideration in this Supplemental EIR.

Different Building Configurations on the Project Site

As part of the design process, a variety of building massings and configurations were studied for the proposed project. This included studying options to provide portions of the programmed and support spaces in a subterranean basement to reduce the height and visual impact of the new building on the Hillside College historic district. The subterranean basement option would have resulted in a larger and deeper area of excavation, which could have resulted in an increased potential for impacts to cultural (archaeological) resources and tribal cultural resources during construction activities. This alternative would not meet the sustainability goals of the campus that require natural daylight and direct access to outdoor spaces. Notwithstanding the space and sustainability issues, subterranean construction was found to be economically infeasible while maintaining the project program elements within the project budget. For these reasons, this alternative was eliminated from consideration.

New Building at Beach Drive Site with Demolition of Existing Building

This alternative would include the construction of a new building at the Beach Drive Site to accommodate the uses and programming of the proposed project and demolition of the existing Hillside Commons/Office building. The site of the existing Hillside Commons/Office building, once demolished, would be landscaped. Demolition of the existing Hillside Commons/Office building under this alternative would not avoid the significant and unavoidable impact to historical resources identified for the proposed project, as the demolition of the existing Hillside Office/Commons building would result in a substantial adverse change to the historical resource. Additionally, this alternative would result in construction activities occurring at two separate sites, rather than at the single site described under the proposed project. As such, this alternative would result in increased environmental impacts overall, when compared to the proposed project. For these reasons, this alternative was eliminated from consideration.

5.4 ALTERNATIVES CARRIED FORWARD FOR DETAILED ANALYSIS

Four alternatives have been carried forward for detailed analysis in this Supplemental EIR, including the "No Project" alternative, as required by CEQA. Based on the environmental analysis conducted for the proposed project, a significant and unavoidable impact was identified for historical resources. Significant impacts requiring mitigation have been identified for archaeological resources and tribal cultural resources. The EIR identifies less than significant impacts for energy and greenhouse gas emissions. In accordance with CEQA Guidelines Section 15126.6(d), each alternative has been evaluated in sufficient detail to determine whether the overall environmental impacts of the alternatives would be less than, similar to, or greater than the corresponding impacts identified for the proposed project.

The alternatives carried forward for detailed analysis in this chapter include:

- No Project Alternative
- Renovation of Existing Building Alternative
- New Building at Corner Site Alternative
- New Building at Beach Drive Site with Renovation of Existing Building Alternative

5.4.1 No Project Alternative

According to CEQA Guidelines Section 15126.6(e)(3)(B), the No Project Alternative is defined as the circumstance under which the proposed project does not proceed. The impacts of the No Project Alternative shall be analyzed by projecting what would reasonably be expected to occur in the foreseeable future if the proposed project were not approved, based on current plans and consistent with available infrastructure and community services. Pursuant to CEQA Guidelines Section 15126.6(e)(1), the purpose of describing and analyzing the No Project Alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

Under the No Project Alternative, the existing Hillside Office/Commons building would not be demolished and would remain on the site in its existing condition, and the new commons building and new HRL office building would not be constructed. Additionally, Earl Warren Drive would remain in its existing configuration, and no new pedestrian pathways would be constructed at the project site under the No Project Alternative.

Operation under the No Project Alternative would be the same as under existing conditions. The existing building would continue to operate as a Central Customer Services Office and limited common space for Hillside College residents. The office currently provides limited services including mail distribution, checkout of games, vacuums, and recreational equipment, and contains a study area for use by residents during regular office hours. The Hillside Office/ Commons also has two single apartments for HRL staff. Under the No Project Alternative, no additional space would be provided to support the desired programming and no new common spaces would be provided either indoors or outdoors. The HRL office uses would not be relocated to the site, and adequate space for commons, administration, and HRL staff would not be provided. Additional apartments for HRL staff would not be provided under the No Project Alternative.

Impact Analysis

Cultural Resources

As discussed in Section 3.1, Cultural Resources, demolition of the existing Hillside Office/ Commons building under the proposed project would diminish the integrity of the historic district in such a way that the district would no longer be eligible for listing in the NRHP or CRHR, resulting in a significant and unavoidable impact. The No Project Alternative would avoid the significant and unavoidable impact to the historical resource as no demolition would occur. Therefore, impacts to cultural resources under the No Project Alternative would be less than the proposed project.

Energy

As no construction activities would occur under the No Project Alternative, construction energy usage would be reduced when compared to the proposed project. However, the existing Hillside Office/Commons building does not currently include energy efficient, sustainable, and resilient features that achieve LEED or NZE requirements, would continue to operate as it does under existing conditions. As such, the No Project Alternative would result in increased operational energy usage when compared to the proposed project. Therefore, impacts related to energy usage under the No Project Alternative would be greater than the proposed project.

Greenhouse Gas Emissions

Similar to energy usage, since the existing Hillside Office/Commons building does not currently include energy efficient, sustainable, and resilient features that achieve LEED or NZE requirements, the continued operation of the existing Hillside Office/Commons building under the No Project Alternative would result in increased greenhouse gas emissions when compared to the proposed project. Therefore, impacts related to greenhouse gas emissions under the No Project Alternative would be greater than those identified for the proposed project.

Tribal Cultural Resources

Under the No Project Alternative, Earl Warren Drive would remain in its existing configuration, which would not require construction activities within the portion of CA-LAN-235 that extends into the western portion of the project site. Additionally, since no ground disturbing activities would occur under the No Project Alternative, the mitigation measures described for the proposed project to reduce impacts to tribal cultural resources would not be required. Therefore, the impact to tribal cultural resources under the No Project Alternative would be less than the proposed project.

Relationship to Project Objectives

The No Project Alternative would preserve the existing Hillside Office/Commons building at its current location and in its current condition. As the HRL office building would not be sited at the existing Hillside Office/Commons building under the No Project Alternative, this alternative would not meet the following project objectives:

- Site the proposed HRL office building and proposed commons building in the same location as the existing, original Hillside Office/Commons building, to maintain the historic spatial relationship to the existing Hillside College Complex residential buildings, hardscape, and landscape that comprise the historic district, as well as to maintain the building's presence and accessibility along Earl Warren Drive.

- Site the proposed HRL office building and commons building within the Hillside College Complex in a way that best utilizes existing parking that is convenient and accessible for campus students, employees and visitors.

- Provide a centralized and accessible HRL office building and commons building for students in the Hillside and Parkside College Complexes, to provide a safe and comfortable living environment for students.

As the No Project Alternative does not include any modifications or renovations to the existing Hillside Office/Commons building or site, the existing constraints on size, configuration,

technology, and sustainability goals would persist under this alternative. Additionally, no new or updated open space opportunities would be provided under this alternative. As no improvements or renovations are occurring as part of the No Project Alternative, adherence to the 2008 Master Plan's site and architectural guidelines would not occur, including coordinating buildings with the open spaces of the campus, provide for enhanced pedestrian circulation patterns, and feature broad and welcoming entrances. For these reasons, the No Project Alternative would not meet the following project objectives:

- Replace existing residential support facilities that are too outdated and undersized to support the full range of needed support services.
- Provide high-quality programming services for students that includes adequate space for commons, administration, and HRL staff.
- Provide open space for students to recreate and socialize.
- Be consistent with campus-wide sustainability policies to achieve net-zero/net-positive goals.
- Ensure that the new HRL office building and commons building are consistent with the 2008 Master Plan's site and architectural guidelines.

The No Project Alternative would not provide the space necessary to accommodate the support services proposed for the project, including the HRL office services. Additionally, the No Project Alternative would not provide any additional common open space. The 2008 Master Plan identified the need to expand its residential offerings to serve their growing enrollment numbers, and the existing Hillside Office/Commons building does not provide adequate space to support the needed student support services in a central, accessible location within the Hillside College complex. Therefore, the No Project Alternative would not meet any of the proposed project's objectives.

5.4.2 Renovation of Existing Building Alternative

Under the Renovation of Existing Building Alternative, the existing Hillside Office/Commons building would not be demolished, but would remain on the project site and undergo renovations to accommodate the desired programming. This alternative includes three options with varying square footages and space configurations. All three options would include the addition of a second floor to the existing single-story Hillside Office/Commons building. Earl Warren Drive would remain in its existing configuration, and no new pedestrian pathways would be constructed at the project site under this alternative. The three renovation options are described below.

- Option 1: Under option 1, the first floor would remain in its current configuration (office, common space, and two apartments) with renovations only to the existing restrooms. The new second floor would span the length of the existing Hillside Office/Commons building and would include approximately 4,400 SF of new space for offices, workstations, a break room, and two conference rooms.
- Option 2: Under option 2, the southern portion of the existing Hillside Office/Commons building would be reconfigured to include a break room, a conference room, and workstation space. Additional renovations on the first floor would include a new 2-bedroom apartment on the northern side of the building and renovation of the existing restrooms.

The new second story would be constructed only over the southern portion of the building, and would include one conference room and space for several offices. The renovations under option 2 would include approximately 5,340 SF of additional space.

- Option 3: Under option 3, the western-facing portion of the existing Hillside Office/Commons building facing Earl Warren Drive would be reconfigured to accommodate offices, conference rooms, and a break room. Additionally, the existing restrooms on the first floor would be renovated. A new second story would be constructed over the reconfigured western portion of the building, and would include four new apartments. This option would include approximately 400 SF of renovations to the existing restrooms and approximately 7,000 SF of new construction associated with the reconfiguration of the first floor and the addition of the second floor.

Impact Analysis

Cultural Resources

The Renovation of Existing Building Alternative would preserve the existing Hillside Office/Commons building on the project site. As such, this alternative would not result in the significant and unavoidable impact to the historical resource identified under the proposed project. While the proposed renovations under all the options of this alternative would change the appearance of the existing Hillside Office/Commons building, the renovations could be designed such that the building could remain visually and architecturally congruent to the other contributors of the historic district. This could be accomplished with mitigation specifying the architectural parameters of the renovations to ensure that they would not result in an adverse change to the historic district. Thus, with mitigation, this alternative could result in reduced impacts to historical resources when compared to the proposed project.

Ground-disturbing activities related to construction would occur under the Renovation of Existing Building Alternative, and construction activities would occur within the portion of CA-LAN-235 that extends into the western portion of the existing Hillside Office/Commons building. As such, the mitigation measures described for the proposed project to reduce impacts to archaeological resources and the discovery of human remains would also be required to implement this alternative. Therefore, the impact to archaeological resources and human remains under the Renovation of Existing Building Alternative would be similar to the proposed project.

Energy

As previously discussed, the existing Hillside Office/Commons building does not currently include energy efficient, sustainable, and resilient features that achieve LEED or NZE requirements. Energy efficient design features would be integrated into the renovations and additions under the Renovation of Existing Building Alternative. Nonetheless, continuing to operate the existing Hillside Office/Commons building, even with the implementation of energy efficient features during renovation would not result in NZE building requirements due to materials used in the construction of the existing Hillside Office/Commons building. Additionally, all three options of this alternative would increase the overall square footage of the existing building. Thus, the Renovation of Existing Building Alternative would result in increased operational energy usage, and the impact to energy would be greater than the proposed project.

Greenhouse Gas Emissions

Similar to energy usage, since the existing Hillside Office/Commons building does not currently include energy efficient, sustainable, and resilient features that achieve LEED or NZE requirements, the additional square footage included in each the three options under this alternative would result in increased greenhouse gas emissions when compared to the proposed project. Therefore, impacts related to greenhouse gas emissions under the Renovation of Existing Building Alternative would be greater than those identified for the proposed project.

Tribal Cultural Resources

Under the Renovation of Existing Building Alternative, Earl Warren Drive would remain in its existing configuration. However, ground-disturbing activities related to construction, such as additional supports for addition of the second-story, would occur under the Renovation of Existing Building Alternative, and would occur within the portion of CA-LAN-235 that extends into the western portion of the project site. As such, the mitigation measures described for the proposed project to reduce impacts to tribal cultural resources would also be required to implement this alternative. Therefore, the impact to tribal cultural resources under the Renovation of Existing Building Alternative would be similar to the proposed project.

Relationship to Project Objectives

The Renovation of Existing Building Alternative would preserve the location of the existing Hillside Office/Commons building near existing parking facilities. Although the Renovation of Existing Building Alternative would not site the HRL office building at the existing Hillside Office/Commons building, it would partially meet the following objective of maintaining the historic spatial relationship to the existing Hillside College Complex, as well as to maintaining the building's presence and accessibility along Earl Warren Drive:

- Site the proposed HRL office building and proposed commons building in the same location as the existing, original Hillside Office/Commons building, to maintain the historic spatial relationship to the existing Hillside College Complex residential buildings, hardscape, and landscape that comprise the historic district, as well as to maintain the building's presence and accessibility along Earl Warren Drive.

Although the location of the existing Hillside Office/Commons building would be maintained under this alternative, the renovations required to support the desired programming would be extensive. Additionally, the existing Hillside Office/Commons building footprint would remain the same and would continue to constrain the use of the site. The Renovation of Existing Building Alternative would adhere to the 2008 Master Plan's site and architectural guidelines to a certain extent by meeting all current accessibility codes; however, certain guidelines would not implemented, including coordinating the building with the open spaces of the campus, provide for enhanced pedestrian circulation patterns, and featuring broad and welcoming entrances. For these reasons, the Renovation of Existing Building Alternative would partially meet the following objective:

- Replace existing residential support facilities that are too outdated and undersized to support the full range of needed support services.

- Ensure that the new HRL office building and commons building are consistent with the 2008 Master Plan's site and architectural guidelines.

As the HRL office building and its services would not be sited at the existing Hillside Office/Commons building, and therefore not be centrally-located, this alternative would not meet the following project objectives:

- Provide high-quality programming services for students that includes adequate space for commons, administration, and HRL staff.

- Site the proposed HRL office building and commons building within the Hillside College Complex in a way that best utilizes existing parking that is convenient and accessible for campus students, employees and visitors; and

- Provide a centralized and accessible HRL office building and commons building for students in the Hillside and Parkside College Complexes, to provide a safe and comfortable living environment for students.

This alternative would not provide new common open space areas, and would continue the operation of the existing Hillside Office/Commons building, which does not include features that achieve LEED or NZE requirements. As such, the Renovation of Existing Building Alternative would not meet the following objectives:

- Provide open space for students to recreate and socialize.

- Be consistent with campus-wide sustainability policies to achieve net-zero/net-positive goals.

The Renovation of Existing Building Alternative would not provide the space necessary to site the HRL office services at the existing Hillside Office/Commons building. Additionally, the Renovation of Existing Building Alternative would not provide any additional common outdoor open space. The 2008 Master Plan identified the need to expand its residential offerings to serve their growing enrollment numbers, and while the Renovation of Existing Building Alternative does provide additional indoor common space for student use and would renovate the existing building, it would not provide adequate space to support the needed HRL student support services in a central, accessible location within the Hillside College complex. Although the Renovation of Existing Building Alternative avoids the significant and unavoidable impact to historical resources identified for the proposed project, it only partially meets three of the eight objectives of the proposed project.

5.4.3 New Building at Corner Site Alternative

As shown in Figure 5-1, the New Building at Corner Site Alternative would involve construction of a new building on the Corner Site within the campus at the corner of Earl Warren Drive and Beach Drive. The new building would be two stories in height and total approximately 10,000 SF, and would include the relocation of the HRL student services. The first floor would contain offices, workstations, a breakroom, and conference rooms. The second floor would have additional office and conference room space, as well as two apartments. Earl Warren Drive would remain in its existing configuration under this alternative. The existing Hillside Office/Commons building would remain intact in its existing configuration, and would continue to serve as a limited indoor commons area for students. No renovations would occur to the Hillside Office/Commons building, and routine maintenance activities would continue as they do under existing conditions.

The New Building at Corner Site Alternative would provide a space for the HRL office to be located, but would rely on the existing Hillside Office/Commons building to provide the student commons space. The existing Hillside Office/Commons building would not be renovated and would remain as-is, with a limited indoor commons area for students that does not meet the 2008 Master Plan objectives of expanding its residential support areas to meet growing enrollment needs. In addition, the configuration of the building that would fit at the Corner Site would not be consistent with the Master Plan architectural guidelines related to building siting and setbacks due to the size and shape of the Corner Site parcel. In order to fit the appropriate footprint of the new building on the Corner Site, the building would be located closer to the active roadways of Earl Warren Drive and Beach Drive, and therefore would not be coordinated with the open spaces of the campus and provide for enhanced pedestrian circulation patterns. As the Corner Site would necessitate development of a new site to accommodate parking, construction activities would occur at two separate sites, which would result in increased construction activities as compared to the proposed project.

The Corner Site is on the southern extent of the Hillside Residential College and would situate the HRL office building in a location that is not easily accessible for pedestrians and vehicles. The New Building at Corner Site Alternative would not provide adequate parking capacity, as Lot G2 is already utilized to its full capacity, and an additional building would necessitate additional parking nearby. Student vehicles are not currently permitted to park along Earl Warren Drive or Beach Drive in the vicinity of the Corner Site location. As such, development of this alternative could necessitate the construction of additional parking nearby in order to provide access to the programmed uses of the proposed project. The location for the additional parking has not been identified by the campus. Traffic conflicts may arise with the location of this alternative, as student vehicles are not currently permitted to park along Earl Warren Drive or Beach Drive in the vicinity of the Corner Site location. A bus stop is currently located along Beach Drive adjacent to the Corner Site location that would be impacted by students temporarily parking along Beach Drive to access the HRL office building, resulting in potential impacts to access and circulation not identified for the proposed project.

Impact Analysis

Cultural Resources

This alternative would not result in a significant and unavoidable impact to the historical resource as no demolition of the existing Hillside Office/Commons building would occur. Since the existing building would remain in its current location and would not undergo renovations, the New Building at Corner Site Alternative would have no impact on the historic district. Therefore, impacts to historical resources under the New Building at Corner Site Alternative would be less than the proposed project.

Construction of this alternative would require ground-disturbing activities such as excavation and grading for the new building foundation. In addition, the New Building at Corner Site Alternative would necessitate development of a new site to accommodate parking and would increase the number of locations on which development would occur, which would increase the risk of encountering and disturbing previously unknown cultural resources. Nonetheless, the mitigation measures described for the proposed project to reduce impacts to archaeological resources and the discovery of human remains would be required to implement this alternative. Therefore, the impact to archaeological resources and human remains under the New Building at Corner Site Alternative would be similar to the proposed project.

Energy

The need to develop a new site to accommodate parking would result in construction activities occurring at two sites, thereby increasing the project footprint, which would result in increased energy usage during construction when compared to the proposed project. Although the new building under this alternative would be constructed to incorporate energy efficient, sustainable, and resilient features that achieve LEED or NZE requirements, the existing Hillside Office/ Commons building would also continue to operate as it does under existing conditions. Since the existing building does not include features that achieve LEED or NZE requirements, the operation of the both the building at the Corner Site and existing Hillside Office/Commons building would result in increased energy usage when compared to the proposed project. Therefore, impacts related to energy usage under the New Building at Corner Site Alternative would be greater than those identified for the proposed project.

Greenhouse Gas Emissions

Similar to energy usage, the need to develop a new site to accommodate parking would result in construction activities occurring at two sites, thereby increasing the project footprint, which would result in increased greenhouse gas emissions when compared to the proposed project. The new building under this alternative would include features that achieve LEED or NZE requirements; however, the existing Hillside Office/Commons building does not meet these requirements. Under this alternative, the existing Hillside Office/Commons building would continue to operate as it does under existing conditions. The continued usage at the existing building, in addition to operation of the new building under this alternative would result in increased greenhouse gas emissions when compared to the proposed project. Therefore, impacts related to greenhouse gas emissions under the New Building at Corner Site Alternative would be greater than those identified for the proposed project.

Tribal Cultural Resources

The New Building at Corner Site Alternative would not result in the reconfiguration of Earl Warren Drive and would avoid construction activities within the portion of CA-LAN-235 that extends into the western portion of the proposed project site. Through the AB 52 consultation process, CSULB would consult with interested tribes to identify and avoid tribal cultural resources. As the location of the parking has yet to be identified, tribal cultural resources may be inadvertently uncovered during the course of construction-related excavations. The mitigation measures described for the proposed project to reduce impacts to tribal cultural resources would be required to implement this alternative. Therefore, the impact to tribal cultural resources under the New Building at Corner Site Alternative would be similar to the proposed project.

Relationship to Project Objectives

The New Building at Corner Site Alternative would provide a new expanded location for the HRL offices. Therefore, this alternative would meet the following objective:

- Replace existing residential support facilities that are too outdated and undersized to support the full range of needed support services.

Due to size constraints on the building and site configuration, the programming would be split between two physically separated locations, with the limited commons space in the existing Hillside Office/Commons building remaining as the main commons area for the Hillside College

complex students, and the HRL office building being located at the Corner Site. The commons space in the Hillside Office/Commons building does not adequately serve the existing and projected residential population of the Hillside College complex. Therefore, this alternative only partially meets the following objective:

- Provide high-quality programming services for students that includes adequate space for commons, administration, and HRL staff.

The New Building at Corner Site Alternative would adhere to the 2008 Master Plan's site and architectural guidelines to a certain extent by meeting all current accessibility codes; however, certain guidelines would not implemented, including coordinating the building with the open spaces of the campus, provide for enhanced pedestrian circulation patterns, and featuring broad and welcoming entrances. For these reasons, the New Building at Corner Site Alternative would partially meet the following objective:

- Ensure that the new HRL office building and commons building are consistent with the 2008 Master Plan's site and architectural guidelines.

The New Building at Corner Site Alternative would replace existing residential support facilities with a new expanded location for the HRL offices and the existing Hillside Office/Commons building would remain at its existing location. However, the Corner Site location is not centrally-located and is not easily accessible by students. Due to size constraints, the programming would be split between two physically separated locations, with the limited commons space in the existing Hillside Office/Commons building remaining as the main commons area for the Hillside College complex students. For these reasons, the New Building at Corner Site Alternative would not meet the following project objectives:

- Site the proposed HRL office building and proposed commons building in the same location as the existing, original Hillside Office/Commons building, to maintain the historic spatial relationship to the existing Hillside College Complex residential buildings, hardscape, and landscape that comprise the historic district, as well as to maintain the building's presence and accessibility along Earl Warren Drive; and

- Provide a centralized and accessible HRL office building and commons building for students in the Hillside and Parkside College Complexes to provide a safe and comfortable living environment for students.

The New Building at Corner Site Alternative would result in the desired programming being split between two buildings and would necessitate the construction of additional parking facilities to serve the new building. In addition, it would not provide additional landscaped areas or new pedestrian pathways, and would continue the operation of the existing Hillside Office/Commons building, which does not include features that achieve LEED or NZE requirements. For these reasons, the New Building at Corner Site Alternative would not meet the following objectives:

- Site the proposed HRL office building and commons building within the Hillside College Complex in a way that best utilized existing parking that is convenient and accessible for campus students, employees, and visitors;

- Provide open space for students to recreate and socialize; and

- Be consistent with campus-wide sustainability policies to achieve net-zero/net-positive goals.

As discussed above, the New Building at Corner Site Alternative would necessitate development of a new site to accommodate parking, and construction activities would occur at two separate sites, which would result in increased construction activities as compared to the proposed project. In addition, traffic conflicts may arise with the location of this alternative, as student vehicles are not currently permitted to park along Earl Warren Drive or Beach Drive in the vicinity of the Corner Site location. Although the New Building at Corner Site Alternative would avoid the significant and unavoidable impact to historical resources identified for the proposed project, it would result in additional impacts not identified for the proposed project and would not meet five of the eight objectives of the proposed project.

5.4.4 New Building at Beach Drive Site with Renovation of Existing Building

The New Building at Beach Drive Site with Renovation of Existing Building Alternative would include construction of a new building at the Beach Drive Site, as shown in Figure 5-1, and renovation of the existing Hillside Office/Commons building. This alternative includes two options for the new building, both of which would include a landscaped quad area in front of the building. Earl Warren Drive would remain in its existing configuration under this alternative, and no new pedestrian pathways would be constructed near the existing Hillside Office/Commons building. The two options for the new building are as follows:

- Option 1: Under option 1, the new building at the Beach Drive Site would be two stories in height and total approximately 12,000 SF. The first floor of the new building would include office, workstation, and administrative areas, while the second floor would include new apartments. Under this option, the existing Hillside Office/Commons Building would be renovated as needed for future use within the existing footprint.

- Option 2: Under option 2, the new building at the Beach Drive Site would be one story in height and would contain approximately 6,000 SF of office, workstation, and administrative spaces. Renovation of the existing Hillside Office/Commons building would include the addition of approximately 6,000 SF of space to the western frontage of the building to accommodate new apartments. The additional space would be located in a single story on the left and right sides of the existing entrance in the existing lawn space in front of the building. The renovations under this option would extend the existing building westward to the parcel boundary at Earl Warren Drive.

The Beach Drive Site is on the southern extent of the Hillside Residential College and is not centrally located or easily accessible to pedestrians and vehicles. The New Building at Beach Drive Site with Renovation of Existing Building Alternative would not provide adequate parking capacity, as Lot G2 is already utilized to its full capacity, and an additional building would necessitate additional parking nearby. Student vehicles are not currently permitted to park along Beach Drive in the vicinity of the Beach Drive Site location. Also, there is an existing bus stop on Beach Drive whose operations would be impacted by parked vehicles. As such, development of this alternative would necessitate the construction of additional parking elsewhere.

As the Beach Drive Site would necessitate development of a new site to accommodate parking, construction activities would occur at three sites, which would result in increased construction activities over the proposed project. Additionally, the existing Beach Drive Site is currently used as an informal site for outdoor events. As such, construction on this site would limit this area as a

recreational open space option for students, resulting in an additional impact not identified for the proposed project.

Additionally, the New Building at Beach Drive Site with Renovation of Existing Building Alternative would not centrally locate student services within the campus, and would situate the HRL office building in a location that is not easily accessible by pedestrians or vehicles. Traffic conflicts may arise with the location of this alternative, as student vehicles are not currently permitted to park along Earl Warren Drive or Beach Drive in the vicinity of the Beach Site location. A bus stop is currently located along Beach Drive adjacent to the Beach Site location that would be impacted by students temporarily parking along Beach Drive to access the HRL office building, resulting in potential impacts to access and circulation not identified for the proposed project.

Impact Analysis

Cultural Resources

Both options under this alternative would preserve the existing Hillside Office/Commons building. As such, this alternative would not result in a significant and unavoidable impact to the historical resource identified under the proposed project. Since Option 1 would likely only include interior renovations, no changes to the significance of the historic district would be anticipated. The required renovations for Option 2 would modify the western frontage of the building. However, the renovations under Option 2 could be designed such that the building could remain visually and architecturally congruent to the other contributors of the historic district. This could be accomplished with mitigation specifying the architectural parameters of the renovations to ensure that they would not result in an adverse change to the historic district. Thus, with mitigation, this alternative would result in reduced impacts to historical resources when compared to the proposed project.

Construction of this alternative would require ground-disturbing activities such as excavation and grading for the new building foundation. As this alternative would necessitate the development of a new site to accommodate parking, the number of locations on which development would occur increases the risk of encountering and disturbing previously unknown cultural resources. Nonetheless, the mitigation measures described for the proposed project to reduce impacts to archaeological resources and the discovery of human remains would be required to implement this alternative. Therefore, the impact to archaeological resources and human remains under the New Building at Beach Drive Site with Renovation of Existing Building Alternative would be similar to the proposed project.

Energy

The need to develop a new site to accommodate parking would result in construction activities occurring at a third site, which would result in increased energy usage during construction when compared to the proposed project. Although the new building under this alternative would be designed to include energy efficient, sustainable, and resilient features that achieve LEED or NZE requirements, the existing Hillside Office/Commons building would also continue to operate and would include additional apartment space than is currently provided. Since the existing Hillside Office/Commons building does not include features that achieve LEED or NZE requirements, the operation of the both the building at the Beach Drive site and the existing Hillside Office/Commons building would result in increased energy usage when compared to the proposed project. Therefore, impacts related to energy usage under the New Building at Beach Drive Site with

Renovation of Existing Building Alternative would be greater than those identified for the proposed project.

Greenhouse Gas Emissions

Similar to energy usage, construction activities at three sites would result in increased greenhouse gas emissions when compared to the proposed project. The new building under this alternative would include features that achieve LEED or NZE requirements; however, the existing Hillside Office/Commons building does not meet these requirements. Under this alternative, the existing Hillside Office/Commons building would continue to operate, and would include additional apartment space than is currently provided. The increase in usage at the existing Hillside Office/ Commons building, in addition to operation of the new building under this alternative would result in increased greenhouse gas emissions when compared to the proposed project. Therefore, impacts related to greenhouse gas emissions under the New Building at Beach Drive Site with Renovation of Existing Building Alternative would be greater than those identified for the proposed project.

Tribal Cultural Resources

The New Building at Beach Drive Site with Renovation of Existing Building Alternative would include an addition of approximately 6,000 SF of space to the western frontage of the Hillside Office/Commons building to accommodate new apartments. The additional space would be located in a single story on the left and right sides of the existing entrance in the existing lawn space in front of the building, which may occur within the portion of CA-LAN-235 that extends into the western portion of project site. Also, the need to develop two new sites to accommodate the new building and the required parking increases the number of locations on which development would occur, thereby increasing the risk of encountering and disturbing previously unknown tribal cultural resources. The mitigation measures described for the proposed project to reduce impacts to tribal cultural resources would be required to implement this alternative. Therefore, the impact to tribal cultural resources under the New Building at Beach Drive Site with Renovation of Existing Building Alternative would be similar to the proposed project.

Relationship to Project Objectives

The New Building at Beach Drive Site with Renovation of Existing Building Alternative would provide a new expanded location for the HRL offices, and would provide a new landscaped quad area in front of the new building. Therefore, this alternative would meet the following objectives:

- Replace existing residential support facilities that are too outdated and undersized to support the full range of needed support services.

- Provide open space for students to recreate and socialize.

The New Building at Beach Drive Site with Renovation of Existing Building Alternative would replace existing residential support facilities and the existing Hillside Office/Commons building would remain at its existing location and would be renovated. However, due to size constraints, the programming would be split between two physically separated locations, and the limited commons area would remain at the existing Hillside Office/Commons building. For these reasons, the New Building at Beach Drive Site with Renovation of Existing Building Alternative would partially meet the following project objective:

- Provide high-quality programming services for students that includes adequate space for commons, administration, and HRL staff.

The New Building at Beach Drive Site with Renovation of Existing Building Alternative would adhere to the 2008 Master Plan's site and architectural guidelines to a certain extent by meeting all current accessibility codes; however, certain guidelines would not be implemented, such as providing for enhanced pedestrian circulation patterns. For these reasons, the New Building at Beach Drive Site with Renovation of Existing Building Alternative would partially meet the following objective:

- Ensure that the new HRL office building and commons building are consistent with the 2008 Master Plan's site and architectural guidelines.

The New Building at Beach Drive Site with Renovation of Existing Building Alternative would result in the desired programming being split between two buildings and would necessitate the construction of additional parking facilities to serve the new building. In addition, the alternative would continue the operation of the existing Hillside Office/Commons building, which does not meet include features that achieve LEED or NZE requirements, the New Building at Beach Drive Site with Renovation of Existing Building Alternative would not meet the following objectives:

- Site the proposed HRL office building and proposed commons building in the same location as the existing, original Hillside Office/Commons building, to maintain the historic spatial relationship to the existing Hillside College Complex residential buildings, hardscape, and landscape that comprise the historic district, as well as to maintain the building's presence and accessibility along Earl Warren Drive; and

- Site the proposed HRL office building and commons building within the Hillside College Complex in a way that best utilized existing parking that is convenient and accessible for campus students, employees, and visitors;

- Provide a centralized and accessible HRL office building and commons building for students in the Hillside and Parkside College Complexes to provide a safe and comfortable living environment for students; and

- Be consistent with campus-wide sustainability policies to achieve net-zero/net-positive goals.

As discussed above, the New Building at Beach Drive Site with Renovation of Existing Building Alternative would necessitate development of a new site to accommodate parking, construction activities would occur at three sites, which would result in increased construction activities over the proposed project. Construction on this site would limit this area as a recreational open space option for students, resulting in an additional impact not identified for the proposed project. In addition, traffic conflicts may arise with the location of this alternative, as student vehicles are not currently permitted to park along Earl Warren Drive or Beach Drive in the vicinity of the Corner Site location. Although the New Building at Beach Drive Site with Renovation of Existing Building Alternative would avoid the significant and unavoidable impact to historical resources identified for the proposed project, it would result in additional impacts not identified for the proposed project and does not meet four of the eight objectives of the proposed project.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In accordance with CEQA Guidelines Section 15126.6, an EIR shall identify an environmentally superior alternative among the feasible alternatives. The No Project Alternative would be the environmentally superior alternative, primarily because no development would occur and it would avoid all of the construction-related impacts associated with the proposed project and the three build alternatives. However, the No Project Alternative would not meet any of the project objectives. Additionally, the existing Hillside Office/Commons building does not meet NZE building requirements and, therefore, the No Project Alternative would result in increased impacts related to operational energy usage and greenhouse gas emissions. Nonetheless, the No Project Alternative would result in the least impacts when compared to the proposed project and the three build alternatives. In accordance with Section 15126.6(e)(2) of the CEQA Guidelines, if the environmentally superior alternative is the No Project Alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

Table 5-1 provides a comparison of the impacts of each of the build alternatives. As discussed above and shown in Table 5-1, the three build alternatives would avoid the significant and unavoidable impact to the historical resource associated with the proposed project, as they would not include demolition of the existing Hillside Office/Commons building. The three build alternatives would also result in comparable impacts to cultural (archaeological) resources and tribal cultural resources during construction activities and operation. As the existing Hillside Office/ Commons building does not meet NZE building requirements, all three build alternatives would also result in increased impacts related to operational energy usage and greenhouse gas emissions.

The New Building at Beach Drive Site with Renovation of Existing Building Alternative would result in greater impacts in comparison to the other build alternatives due to construction occurring on three different sites (new building site, existing Hillside Office/Commons building, and the potential parking lot), resulting in an increased level of construction activity and thereby an increased amount of energy usage and greenhouse gas emissions. This alternative would also result in two additional impacts that were not identified for the proposed project: (1) it would develop a site currently used as an informal outdoor event area by students, thereby eliminating the use of that space as a recreational open space option; and (2) it would result in potential access and circulation impacts as a bus stop is currently located along Beach Drive adjacent to the Corner Site location that would be impacted by students temporarily parking along Beach Drive to access the HRL office building. In addition, the New Building at Beach Drive Site with Renovation of Existing Building Alternative meets two of the project's objectives; partially meets two of the project's objectives; and does not meet four of the eight objectives of the proposed project.

The New Building at Corner Site Alternative would also require the construction of additional parking facilities, resulting in construction activities occurring on multiple sites, which would cause increased construction impacts when compared to the proposed project, although marginally less than the New Building at Beach Drive Site with Renovation of Existing Building Alternative as there would be two construction sites as opposed to three construction sites. Similar to the New Building at Beach Drive Site with Renovation of Existing Building Alternative, this alternative would also result in potential access and circulation impacts, but would not result in impacts associated with elimination of a recreational open space as the Corner Site is not currently used as an informal outdoor event area by students. The New Building at Corner Site Alternative meets one of the project's objectives; partially meets two of the project's objectives; and does not meet five of the eight objectives of the proposed project.

The Renovation of Existing Building Alternative would result in increased impacts related to operational energy usage and greenhouse gas emissions as the existing Hillside Office/Commons building does not meet NZE building requirements. Although the long term impacts related to operational energy and greenhouse gas emissions under the Renovation of Existing Building Alternative would be greater than the proposed project, this alternative would avoid the significant and unavoidable impact associated with the proposed project and would result in the fewest new impacts among the three build alternatives. Therefore, the Renovation of Existing Building Alternative would be considered the environmentally superior alternative. However, the Renovation of Existing Building Alternative would only partially meet three of the project's objectives, and does not meet five of the eight objectives of the proposed project.

Table 5-1
Comparison of Impacts of the Alternatives to the Proposed Project

Impact Area	Proposed Project	No Project Alternative	Renovation of Existing Building Alternative	New Building at Corner Site Alternative	New Building at Beach Drive Site with Renovation of Existing Building Alternative
Cultural Resources					
Construction	I	Less	Less	Less	Less
Operation	IV	Similar	Similar	Similar	Similar
Energy					
Construction	III	Less	Similar	Greater	Greater
Operation	III	Greater	Greater	Greater	Greater
Greenhous Gas Emissions					
Construction	III	Less	Similar	Greater	Greater
Operation	III	Greater	Greater	Greater	Greater
Tribal Cultural Resources					
Construction	II	Less	Similar	Similar	Similar
Operation	IV	Similar	Similar	Similar	Similar

Notes:
I: Significant Unavoidable Impact
II: Potentially Significant Impact Unless Mitigated
III: Less than Significant Impact
IV: No Impact

Less: Impact is lower in magnitude than impacts of the proposed project
Similar: Impact is similar in magnitude to impacts of the proposed project
Greater: Impact is greater in magnitude than impacts of the proposed project

6. ACRONYMS

2008 EIR	Certified 2008 Campus Master Plan Update Environmental Impact Report
AB	Assembly Bill
btu	British Thermal Unit
CAA	Clean Air Act
CalEEMod	California Emissions Estimator Model
CalGreen	California Green Building Standards
California Register	California Register of Historical Resources
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
CAT	Climate Action Team
cm	centimeter
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRMDP	cultural resources monitoring and discovery plan
CSU	California State University
CSULB	California State University, Long Beach
E.O.	Executive Order
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act of 2007
FTES	full-time equivalent student
GHG	greenhouse gas

GWP	global warming potential
HABS	Historic American Building Survey
HFC	hydrofluorocarbons
HRL	Housing and Residential Life
LEED	Leadership in Energy and Environmental Design
LOS	Level of Service
LST	Localized Significance Threshold
MMT	million metric tons
MPO	Metropolitan Planning Organization
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NO_X	nitrogen oxide
NPS	National Park Service
NRB	National Register Bulletin
NRHP	National Register of Historic Places
NZE	Net Zero Energy
PFC	perfluorocarbons
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PM_{10}	particulate matter ten microns or less in diameter
PRC	Public Resources Code
PSD	Prevention of Significant Deterioration
PV	photovoltaic
RFS	Renewable Fuel Standard
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District

SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SF	Square-foot
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SLF	Sacred Lands File
SoCalGas	Southern California Gas Company
USEPA	United States Environmental Protection Agency
VA	Veterans Affairs
VMT	vehicle miles traveled

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