CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS OF FACT REGARDING THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE Medical Education Building Project, University of California, Merced State Clearinghouse No. 2021040047

I. CERTIFICATION

The University of California ("University") hereby certifies the Final Environmental Impact Report ("Final EIR" or "EIR") for the UC Merced Medical Education ("UCM-ME") Building Project ("Project"), which consists of the Draft EIR, which is incorporated by reference, revisions to the Draft EIR, comments on the Draft EIR, responses to comments, and the Mitigation Monitoring and Reporting Program ("MMRP") (State Clearinghouse No. 2021040047). In accordance with California Environmental Quality Act ("CEQA") Guidelines § 15090, the University, as Lead Agency for the Project, certifies that:

(1) The Final EIR has been completed in compliance with CEQA;

(2) The Final EIR was presented to the University, and the University has received, reviewed, and considered the information contained in the Final EIR and in the administrative record prior to approving the Project;

(3) The Final EIR reflects the University's independent judgment and analysis.

The University further certifies that this Final EIR properly tiers from the 2020 Long Range Development Plan ("LRDP") Subsequent EIR ("SEIR") and the 2009 UC Merced and University Community Project Environmental Impact Statement (EIS)/EIR ("2009 LRDP EIS/EIR"), pursuant to Public Resources Code §§ 21080.09 and 21094 and CEQA Guidelines §§ 15063(b)(1)(c) and 15152, and complies with all relevant requirements for tiered CEQA documents. The 2020 LRDP SEIR supplemented the 2009 LRDP EIS/EIR and analyzed the environmental impacts from long-range development on the UC Merced campus through 2030. The Project is within the growth projections analyzed in the 2020 LRDP EIR and is consistent with the 2020 LRDP SEIR and 2009 LRDP EIS/EIR. The Final EIR incorporates by reference the information, analysis and conclusions contained in the 2020 LRDP SEIR and the 2009 LRDP EIS/EIR, and considers all additional, relevant information that has become available since the University's certification of the 2020 LRDP SEIR; examines the project-specific impacts of the Project, including all impacts that (1) were not examined as significant effects on the environment in the 2020 LRDP SEIR and 2009 LRDP EIS/EIR or (2) are susceptible to substantial reduction or avoidance by the choice of specific revisions in the Project, by the imposition of feasible mitigation measures or Project conditions, or other means. The 2020 LRDP SEIR and 2009 LRDP EIS/EIR, from which this Final EIR is tiered, are available on UC Merced's planning website https://planning.ucmerced.edu/ceqa-environmental-documents, as well as in hard copy at: UC Merced Physical & Environmental Planning office in the Downtown Center at 655 West 18th Street, Merced, CA 95340.

The University has exercised independent judgment in accordance with Public Resources Code § 21082.1(c) in retaining its own environmental consultant and directing the consultant in preparation of the EIR, as well as reviewing, analyzing and revising material prepared by the consultant.

In accordance with Public Resources Code § 21081 and CEQA Guidelines § 15091, the University has made one or more specific written findings regarding significant impacts associated with the Project. Those findings are presented below, along with the rationale behind each of the findings. Concurrent with the adoption of these findings, the University adopts the MMRP.

The documents and other materials that constitute the record of proceedings on which the Project findings are based are located at the UC Merced Physical & Environmental Planning office in the Downtown Center at 655 West 18th Street, Merced, CA 95340. The custodian for these documents is the UC Merced Physical & Environmental Planning Department in the Downtown Center at 655 West 18th Street, Merced, CA 95340. This information is provided in compliance with Public Resources Code § 21081.6(a)(2) and CEQA Guidelines § 15091(e).

II. PROJECT BACKGROUND

A. PROJECT DESCRIPTION SUMMARY

The Project consists of two components: (1) development of the proposed UCM-ME Building, including a site access road and a small surface parking lot; and (2) filling of the existing storm water detention basins within Cottonwood Meadow and the construction of a new stormwater basin in the southern portion of the campus.

The proposed building would include approximately 190,000 outside gross square feet (ogsf) of building space. The four-story building would be approximately 65 feet in height (60 feet plus a 5-foot parapet), consisting of two wings that would wrap around a central courtyard. After the space associated with common areas, such as lobbies, hallways, restrooms and mechanical space, is deducted, there would approximately 118,750 assignable square feet (asf) of instructional, academic office, research, and community facing space. The proposed building would include faculty offices, graduate student, post doc, and undergraduate research space for the Medical Education programs and the Departments of Psychological Sciences and Public Health. The proposed building would also house the Health Sciences Research Institute (HSRI) and associated research facilities, thus integrating the new building with a significant cross section of the campus research community.

Automobile access to the site would be via the Bellevue Road extension and Cottonwood Loop Road. To facilitate community participation in research studies in developmental psychology and community-based public health initiatives, a small parking lot with 60 spaces would be provided adjacent to the proposed building with direct access to Cottonwood Loop Road. The parking lot would also include electrical vehicle stalls/charging stations. The Project would provide

pedestrian links to other areas of the campus, bicycle spaces and facilities, and access to shuttles that connect with public transit services.

While there is sufficient electrical capacity in the switchgear at UC Merced's Central Plant to serve the UCM-ME Building, the Project also includes minor upgrades to the Central Plant involving the installation of two new electrical feeds that would be installed within the existing facilities and vaults. No new ground disturbance would occur as a result of the upgrades to Central Plant and the new electrical feed installation.

The Project would also involve the filling and grading of the existing storm water detention basins in Cottonwood Meadow and the construction of a new storm water detention basin in the southern portion of the campus to replace the basins that would be filled and to also handle the increased storm water flows that would result from project development. New storm drains would be installed in Cottonwood Loop Road and other roadways to convey storm water flows from the proposed building area to the new storm water detention basin.

B. PROJECT OBJECTIVES

The objectives for the Project are as described in Section 2.4 of the Final EIR. The Project is intended to address the following conditions:

- Medical Education and Allied Healthcare Programs. UC Merced currently does not have the appropriate facilities to support the UC San Francisco (UCSF)-Fresno and UCSF San Joaquin Valley Program in Medical Education (SJV PRIME) partnership nor other partnerships with community colleges or other SJV healthcare worker training programs. For example, the Campus currently does not have anatomy training facilities, adequate hybrid learning classrooms, or clinical or simulation skills training areas.
- Obstacles to Faculty Hiring/Program Growth. Additional office, research lab, graduate student and post doc space is needed to facilitate future growth in the Departments of Psychological Sciences, Public Health, and the emerging School of Management. Without additional space, these four existing programs will not be able to continue to support campus population growth at the undergraduate and graduate level nor hire the additional faculty required to develop the anticipated new programs necessary to deliver a flourishing medical education pipeline program and affect the clinical research and healthcare in the region.
- Obstacles to Creation of New Community-Based Programs. The Campus has no capacity to create and house new programs (i.e., Institute for Child and Family Sciences) without the creation of more and new types of space. Partnerships with community colleges, secondary schools, the Accreditation Council for Graduate Medical Education (ACGME) programs in the SJV and the other Health Center Program Look-Alikes in the SJV require facilities that promote community access and interaction.
- General Assignment Classrooms. Recent classroom utilization studies have shown that capacity in all classrooms will be reached by the time student enrollment reaches 12,500

students (approximately 2025) and capacity has already been reached in certain types of classrooms. The recent experience of COVID-19 also emphasizes the need for the Campus to make hybrid learning capable classrooms a priority in any future buildings.

Based on the above conditions, the key objectives of the Project are to:

- Provide space for the development of a new Medical Education program, initially in partnership with the UCSF-Fresno and SJV/PRIME program.
- Provide space for growth in the Department of Public Health.
- Provide space for growth in the Department of Psychological Sciences and creation of an Institute for Child and Family Sciences.
- Consolidate and collocate these existing and new programs in one facility so as to optimally draw upon the intellectual, technological, and material resources of the UC Merced programs and facilities, and enhance intellectual exchange and collaboration between related programs.
- Provide classroom space to support campus population growth.
- Maximize energy efficiency, sustainability, and cost-effectiveness of these programs by housing them in a consolidated, state-of-the-art building designed to balance energy use and cost efficiencies.

C. PROCEDURAL COMPLIANCE WITH CEQA

The CEQA environmental review process for the UC Merced Medical Education Building Project started on April 2, 2021 with the UC Merced campus' issuance of a Notice of Preparation ("NOP") of an EIR. The key milestones associated with preparation of an EIR are set forth and described below:

To determine which environmental topics should be addressed in the EIR, UC Merced circulated a NOP from April 2 to May 3, 2021 in order to receive input from interested public agencies and the public. Based on the scoping comments and the analysis in the Initial Study that accompanied the NOP, a Draft EIR was prepared to address in depth the impacts of the Project in the following environmental topics: air quality, hydrology and water quality, public services (fire protection), transportation, tribal cultural resources, and utilities (wastewater system capacity). Additionally, an updated supplemental program-level transportation impact analysis of campus growth through 2030 under the 2020 LRDP was prepared based on vehicle miles traveled ("VMT") metrics consistent with State CEQA Guidelines § 15064.3, subdivision (b) and included in the Draft EIR. The updated transportation impact analysis in the EIR replaces in full the prior level of service ("LOS")-based transportation impact analysis that was included in the 2020 LRDP SEIR.

A copy of the NOP and the Initial Study supporting the scoping of the proposed HBS-ME Building Project were posted on UC Merced's Physical & Environmental Planning website at

https://planning.ucmerced.edu/ceqa-environmental-documents. Notices were also mailed to adjacent property owners on Lake Road and Bellevue Road and local, State, and federal agencies with interest in the Project. An online scoping meeting was held on Wednesday, April 21, 2021 from 4:00 p.m. to 6:00 p.m., and one member of the public provided oral comments related to the scope of the Draft EIR. During the review period, comment letters were received from two State agencies, including the California Department of Fish and Wildlife and the Native American Heritage Commission, as well as the Merced Irrigation District. All applicable scoping comments were addressed in the Draft EIR impact analysis.

The Draft EIR was circulated for public review for a 45-day public comment period, which began on August 26, 2022 and ended on October 10, 2022. The Draft EIR was posted on UC Merced's Physical & Environmental Planning website, and notices were mailed to adjacent property owners on Lake Road and Bellevue Road and local, State, and federal agencies with interest in the Project, including entities that had previously provided comment on the Initial Study and NOP. UC Merced held a public meeting on the Draft EIR on September 19, 2022. One member of the public provided oral comments unrelated to the Project. During the review period, comment letters were received from the U.S. Army Corps of Engineers and the Merced Irrigation District.

The Final EIR was completed and published on November 1, 2022 and posted on UC Merced's Physical & Environmental Planning website. UC Merced also sent the Final EIR via email to the U.S. Army Corps of Engineers and the Merced Irrigation District. The Final EIR includes revisions to the Draft EIR, comments, responses to comments, and the MMRP.

D. ENVIRONMENTAL IMPACTS AND FINDINGS

Pursuant to Public Resources Code § 21081 and CEQA Guidelines §15091, no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless the public agency makes one or more of the following findings with respect to each significant impact:

1. Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

2. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

The University has made one or more of these specific written findings regarding each significant impact associated with the Project. Those findings are presented below, along with a presentation of facts in support of the findings.

The EIR evaluation included a detailed analysis of impacts in six environmental topics, analyzing the Project and alternatives, including a No Project Alternative. The EIR discloses the environmental impacts expected to result from the construction and operation of the Project. Where needed, mitigation measures were identified to avoid or minimize significant environmental effects. In addition, because the Project is an element of campus growth and development under the 2020 LRDP, UC Merced has already committed to implementing applicable LRDP mitigation measures in order to reduce the direct and indirect impacts that will result from Project activities.

1. Findings on Less than Significant Impacts

Based on the issue area assessment in the EIR, the University has determined that the Project will have no impact or less than significant impacts for several environmental topics as summarized in the table below. The rationale for the conclusion that no significant impact would occur in each of the issue areas in the table is based on the discussion of these impacts in the detailed topical analyses in Sections 4.1 through 4.6 of the EIR and the cumulative impacts also discussed in Sections 4.1 through 4.6 of the EIR that were found to have no impact or less than significant impacts.

Table 1: Summary of Less Than Significant Impacts of the UCM-ME Building Project

Environmental Impacts
Aesthetics (See Draft EIR Appendix 1.0, Initial Study)
The Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
The Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.
Agricultural and Forestry (See Draft EIR Appendix 1.0, Initial Study)
The Project would not 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.
The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.
The Project would not 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)).
The Project would not result in the loss of forest land or conversion of forest land to non-forest use.

Environmental Impacts
The Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.
Air Quality (See Draft EIR Section 4.1 and Appendix 1.0, Initial Study)
UCM-ME Impact AQ-3: Implementation of the proposed Project would not expose sensitive receptors to substantial pollutant concentrations of carbon monoxide.
UCM-ME Impact AQ-4: Implementation of the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan.
The Project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.
Biological Resources (See Draft EIR Appendix 1.0, Initial Study)
The Project would not 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.
The Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
The Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
The Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
Energy (See Draft EIR Appendix 1.0, Initial Study)
The Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.
The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
Geology and Soils (See Draft EIR Appendix 1.0, Initial Study)
The Project would not result in substantial soil erosion or the loss of topsoil.
The Project would not 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.
Hazards and Hazardous Materials (See Draft EIR Appendix 1.0, Initial Study)
The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
The Project would not 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.

Environmental Impacts
The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
The Project would not be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and would not result in a safety hazard or excessive noise for people residing or working in the project area.
The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.
Hydrology and Water Quality (See Draft EIR Section 4.2 and Appendix 1.0, Initial Study)
UCM-ME Impact HYD-1: Implementation of the proposed Project would not substantially alter the existing drainage pattern of the campus site through alteration of a water course or through the addition of impervious surfaces such that it would result in substantial erosion or siltation on or off site, result in flooding on or off site, contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, or impede or redirect flood flows.
The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality and would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
The Project is not located in a flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation.
The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
Cumulative Impact C-HYD-1: Implementation of the proposed Project, in conjunction with other past, present, and reasonably foreseeable future development in the project area, could cumulatively increase surface runoff but would not increase local and regional flooding.
Land Use and Planning (See Draft EIR Appendix 1.0, Initial Study)
The Project would not physically divide an established community.
The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
Mineral Resources (See Draft EIR Appendix 1.0, Initial Study)
The Project would not 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.
The Project would not 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.
Noise (See Draft EIR Appendix 1.0, Initial Study)
The Project is not located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and would not expose people residing or working in the project area to excessive noise levels.

Environmental Impacts
Population and Housing (See Draft EIR Appendix 1.0, Initial Study)
The Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
The Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.
Public Services (See Draft EIR Section 4.3 and Appendix 1.0, Initial Study)
UCM-ME Impact PUB-1: Implementation of the proposed Project would increase demand for fire protection services and would require the construction of new facilities, but the impacts from construction would be less than significant with mitigation.
The Project would not 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 police protection services.
The Project would not 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 school services.
The Project would not 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 other public facilities.
Cumulative Impact C-PUB-1: Development of the proposed Project, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would generate an increased demand for fire protection services, the provision of which would not result in a significant cumulative environmental impact.
Recreation (See Draft EIR Appendix 1.0, Initial Study)
The Project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.
Transportation (Draft EIR Section 4.4 and Appendix 1.0, Initial Study)
UCM-ME Impact TRANS-1: Implementation of the proposed Project would not conflict with a program, plan, ordinance, or policy addressing roadway facilities.
UCM-ME Impact TRANS-2: Implementation of the proposed Project would not exceed an applicable VMT threshold of significance under 2030 with Project conditions and therefore would not conflict with State CEQA Guidelines § 15064.3, subdivision (b).
The Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
The Project would not result in inadequate emergency access.

Environmental Impacts
Cumulative Impact C-TRANS-1: Implementation of the proposed Project would not exceed an applicable VMT threshold of significance under cumulative conditions.
Tribal Cultural Resources (See Draft EIR Section 4.5)
UCM-ME Impact TCR-1: The proposed Project would not cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in § 21074.
Cumulative Impact C-TCR-1: Implementation of the proposed Project would not result in a significant cumulative impact on Tribal Cultural Resources.
Utilities and Service Systems (See Draft EIR Section 4.6 and Appendix 1.0, Initial Study)
UCM-ME Impact UTL-1: Implementation of the proposed Project would not require construction of new or expanded wastewater conveyance or treatment facilities; nor would the proposed Project result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the project's projected demand in addition to existing commitments.
The Project would not require or result in the relocation or construction of new or expanded water, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
The Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
The Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
The Project would not conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.
Wildfire (See Draft EIR Appendix 1.0, Initial Study)
The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan.
The Project, would not, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
The Project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
The Project would not 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.

2. Findings on Less Than Significant Impacts with LRDP EIR Mitigation Measures Incorporated

Based on the topical assessment in the EIR, the University has determined that the Project will have a less than significant impact for the issues set forth below, because 2020 LRDP EIR

mitigation measures are incorporated into and made a part of the Project. The rationale for this conclusion is based on the discussion of these impacts in the detailed topical analyses in Sections 4.1 through 4.6 of the EIR and the cumulative impacts discussed in Sections 4.1 through 4.6 of the EIR. The applicable LRDP EIR mitigation measures are incorporated into the Project and included in the MMRP.

i. Aesthetics

The Project would not have a substantial adverse effect on a scenic vista. (*Appendix 1.0, Initial Study, page 24)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project on scenic vistas. Specifically, mitigation measures 2020 LRDP MM AES-1b and 2020 LRDP MM AES-3a are feasible and are included in the MMRP to mitigate significant effects on scenic vistas and visual quality to a less than significant level.

2020 LRDP MM AES-1b: Where possible, major vehicular and pedestrian transportation corridors on the Campus shall be located and designed to provide views of the Sierra Nevada.

2020 LRDP MM AES-3a: The University shall design all new aboveground infrastructure on the Campus to the following standards: (a) Screen aboveground infrastructure from view from public rights-of-way or scenic vistas, via landscaping, fencing or other architectural screening; (b) Require creative design measures to camouflage structures by integrating them with existing buildings and among other existing uses; (c) Locate aboveground infrastructure on sites that are not visible from visually sensitive areas, such as residential communities and open space areas; (d) Require providers to co-locate their structure on a single site, where technically feasible and visually desirable; and (e) Locate antennae and equipment on other existing community facility sites, such as water tanks or utility poles.

Rationale for Finding: Implementation of 2020 LRDP MM AES-1b and MM AES-3a will reduce impacts to scenic vistas by orienting view corridors to provide views of the Sierra Nevada and screening or locating project-related infrastructure such that it does not affect scenic views.

The Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning or other regulations governing scenic quality. (*Appendix 1.0, Initial Study, page 25)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project on visual character and quality of the Project site and its surroundings. Specifically, mitigation measure 2020 LRDP MM AES-3a is feasible and is included in the MMRP to mitigate significant effects on scenic vistas and visual quality to a less than significant level.

2020 LRDP MM AES-3a: The University shall design all new aboveground infrastructure on the Campus to the following standards: (a) Screen aboveground infrastructure from view from public rights-of-way or scenic vistas, via landscaping, fencing or other architectural screening; (b) Require creative design measures to camouflage structures by integrating them with existing buildings and among other existing uses; (c) Locate aboveground infrastructure on sites that are not visible from visually sensitive areas, such as residential communities and open space areas; (d) Require providers to co-locate their structure on a single site, where technically feasible and visually desirable; and (e) Locate antennae and equipment on other existing community facility sites, such as water tanks or utility poles.

Rationale for Finding: Implementation of 2020 LRDP MM AES-3a will reduce impacts to visual quality of the Project site and its surroundings by screening or locating project-related infrastructure such that it does not affect visual quality.

ii. Air Quality

UCM-ME Impact AQ-1: The proposed Project would not result in construction emissions that would result in a cumulatively considerable net increase of criteria pollutants for which the air basin is in non-attainment. (*Draft EIR Section 4.1, pages 4.1-25 – 4.1-27)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate potentially significant effects of Project construction activities on air quality. Specifically, mitigation measures 2020 LRDP MM AQ-1a and MM AQ-1b are feasible and are included in the MMRP to mitigate potentially significant effects of construction emissions on air quality to a less than significant level.

2020 LRDP MM AQ-1a: The construction contractors shall be required via contract specifications to use construction equipment rated by the U.S. EPA as meeting Tier 4 (model year 2008 or newer) emission limits for engines between 50 and 750 horsepower.

2020 LRDP MM AQ-1b: UC Merced shall include in all construction contracts the measures specified in SJVAPCD Regulation VIII (as it may be amended for application to all construction projects generally) to reduce fugitive dust impacts, including but not limited to the following:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purpose, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions using application of water or by presoaking.

- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least 6 inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, storage piles shall be effectively stabilized of fugitive dust emissions by using sufficient water or chemical stabilizer/ suppressant.

Rationale for Finding: Implementation of 2020 LRDP MM AQ-1a and MM AQ-1b will reduce Project impacts to air quality by minimizing emissions of criteria pollutants from construction equipment and controlling dust emissions.

UCM-ME Impact AQ-2: The proposed Project would not result in operational emissions that would involve a cumulatively considerable net increase of criteria pollutants for which the air basin is in non-attainment. (*Draft EIR Section 4.1, pages 4.1-27 – 4.1-30)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate potentially significant effects of Project operations on air quality. Specifically, mitigation measures 2020 LRDP MM AQ-2a and MM AQ-2b are feasible and are included in the MMRP to mitigate potentially significant effects of the Project's operational emissions on air quality to a less than significant level.

2020 LRDP MM AQ-2a: UC Merced shall implement the following measures to reduce emissions from vehicles:

- Provide pedestrian-enhancing infrastructure to encourage pedestrian activity and discourage vehicle use.
- Provide bicycle facilities to encourage bicycle use instead of driving, such as bicycle parking, bicycle lanes, bicycle lockers; and showers and changing facilities for employees.
- Provide preferential carpool and vanpool parking for non-residential uses.
- Provide transit-enhancing infrastructure to promote the use of public transportation, such as covered bus stops and information kiosks.
- Provide facilities, such as electric car charging stations and a CNG refueling station, to encourage the use of alternative-fuel vehicles.
- Improve traffic flows and congestion by timing of traffic signals at intersections adjacent to the campus to facilitate uninterrupted travel.
- Work with campus transit provider to replace CatTracks buses with either electric buses or buses operated on alternative fuels.

- Work with the City of Merced to establish park and ride lots and provide enhanced transit service between the park and ride lots and the campus.
- Replace campus fleet vehicles with electric vehicles or vehicles that operate on alternative fuels.
- Reduce the number of daily vehicle trips by providing more housing on campus.

2020 LRDP MM AQ-2b: UC Merced shall implement the following measures to reduce emissions from area and energy sources, as feasible:

- Utilize low-VOC cleaning supplies and low-VOC paints (100 grams/liter or less) in building maintenance.
- Utilize electric equipment for landscape maintenance.
- Plant low maintenance landscaping.
- Implement a public information program for resident students to minimize the use of personal consumer products that result in ROG emissions, including information on alternate products.
- Instead of natural gas water heaters, install solar water heating systems.

Rationale for Finding: Implementation of 2020 LRDP MM AQ-2a and MM AQ-2b will reduce impacts to air quality by minimizing emissions of criteria pollutants from vehicular traffic and area sources associated with the Project.

Cumulative Impact C-AQ-1: The construction and operation of the proposed Project, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not hinder air quality attainment and maintenance efforts for criteria pollutants. (*Draft EIR Section 4.1, pages 4.1-31 – 4.1-32)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project's operational emissions on air quality attainment and maintenance efforts. Specifically, mitigation measures 2020 LRDP MM AQ-2a and MM AQ-2b are feasible and are included in the MMRP to mitigate significant effects on air quality maintenance and attainment efforts to a less than significant level.

Cumulative MM C-AQ-1: Implement 2020 LRDP MM AQ-2a and AQ-2b.

Rationale for Finding: Implementation of 2020 LRDP MM AQ-2a and MM AQ-2b will reduce impacts on regional air quality planning efforts by minimizing emissions of criteria pollutants from vehicular traffic and area sources associated with the Project.

iii. Biological Resources

The Project would not 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. (*Appendix 1.0, Initial Study, pages 34 - 41)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project on special-status wildlife species. Specifically, mitigation measures 2020 LRDP MM BIO-4, MM BIO-9a, and MM BIO-9b are feasible and are included in the MMRP to mitigate significant effects on special-status wildlife species to a less than significant level.

2020 LRDP MM BIO-9a: Avoid and minimize impacts on native birds protected under the MBTA, including listed species, fully protected species, special-status species of concern, and raptors and passerines.

(a) Limit ground disturbance activities to the non-breeding season and remove potential unoccupied breeding habitat during the non-breeding season if possible. If breeding season work is required, conduct take avoidance (tree, shrub, and ground) nest surveys to identify and avoid active nests.

- If feasible, UC Merced shall conduct all project-related activities including (but not limited to) tree and shrub removal, other vegetation clearing, grading, or other ground disturbing activities during the non-breeding season (typically between September 16 and February 14).
- If activities are scheduled to occur during the breeding season (typically between February 15 through September 15), applicable CDFW and/or USFWS permit conditions in the permits issued to the University related to bird surveys must be followed. In addition, a UC Merced-approved qualified avian biologist, with knowledge of the species to be surveyed, shall conduct focused nesting surveys within 15 days prior to the start of project or ground-disturbing activities and within the appropriate habitat. The qualified avian biologist shall determine the exact survey duration and location (typically 500 feet around the work area) based on the work conditions and shall take into account existing applicable CDFW or USFWS permit conditions.
- If an unoccupied nest (without birds or eggs) of a non-listed or fully protected species (as determined by the qualified avian biologist) is found, the nest shall be removed under the direction of the qualified avian biologist.
- If an active nest is located, a qualified avian biologist shall establish an appropriate no-disturbance buffer around the nest making sure that any buffer width required by the University's permit obligations is followed. A 500-foot buffer is recommended for listed or fully protected nesting birds (or another buffer determined in consultation with CDFW and/or USFWS), a 250-foot buffer around raptors, and a 75-foot buffer around passerines. If work activities cause or contribute to a bird being flushed from a nest, the buffer width shall be adjusted to avoid and minimize impacts to nesting birds.
- A qualified avian biologist shall monitor the nest site regularly during work activities to ensure that the nest site is not disturbed, the buffer is maintained and the success or failure of the nest is documented.

- If UC Merced elects to remove a nest tree, nest trees may only be removed after the qualified avian biologist has determined that the nests are unoccupied.
- If an active nest is causing a safety hazard, CDFW shall be contacted to determine if the nest can be removed.

(b) Minimize impacts to burrowing owl and compensate for habitat loss. CDFW (2012) recommends that take-avoidance (preconstruction) surveys be conducted to locate active burrowing owl burrows in the construction work area and within an approximately 500-foot buffer zone around the construction area. A qualified avian biologist shall conduct take avoidance surveys for active burrows according to the CDFW's Staff Report on Burrowing Owl Mitigation (2012 Staff Report). Surveys shall be conducted no less than 14 days prior to initiating ground disturbance activities and surveillance surveys should be conducted as frequently as recommended in the 2012 Staff Report. If ground-disturbing activities are delayed or suspended for than 30 days after the take avoidance survey, the area shall be resurveyed. If no burrowing owls are detected, no further mitigation is required. If active burrowing owls are detected, the following additional measures are required:

- Project implementation shall seasonally and spatially avoid negative impacts and disturbances that could result in the take of burrowing owls, nest or eggs.
- If burrowing owls and their habitat can be protected in place or adjacent to a construction site, buffer zones, visual screens or other measures shall be used to minimize disturbance impacts while project activities are occurring. To use these minimization measures, a qualified avian biologist shall determine the exact measures following the guidance described in the 2012 Staff Report.
- If owls must be moved away from the project site during the nonbreeding season, passive relocation techniques (e.g., installing one- way doors at burrow entrances) shall be used instead of trapping, as described in CDFW guidelines. At least 1 week will be necessary to complete passive relocation and allow owls to acclimate to alternate burrows.
- When destruction of occupied burrows is unavoidable during the nonbreeding season (September 1 to January 31), unsuitable burrows shall be enhanced (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2:1 on protected lands approved by the CDFW. Newly created burrows shall follow guidelines established by the CDFW.

2020 LRDP MM BIO-9b: New buildings and structures proposed under the 2020 LRDP shall incorporate bird-safe design practices (for example, American Bird Conservancy's Bird-Friendly Building Design [2015] or San Francisco Planning Department's Standards for Bird-Safe Buildings [2011]). The UC Merced Physical and Environmental Planning Department shall review the final designs of the buildings and structures to determine that appropriate bird safety designs have been effectively incorporated to reduce potential impacts to birds. The following design strategies shall be considered in the design of buildings and structures:

- Create building facades with "visual noise" via cladding or other design features that make it easier for birds to identify buildings and not mistake windows for open sky or trees.
- Incorporate windows that are not clear or reflective into the building or structure designs.
- Use windows that incorporate glass types such as UV-A or fritted glass and windows that incorporate UV-absorbing and UV-reflecting stripe.
- Use grid patterns on windows in locations with the highest potential for bird-window collisions (e.g., windows at the anticipated height of adjacent vegetation at maturity).
- Reduce the proportion of glass to other building materials in new construction.
- Avoid placement of bird-friendly attractants (i.e., vegetated roofs, water features, tall trees) near glass whenever possible.
- Install motion-sensitive lighting in any area visible from the exterior that automatically turn lights off during after-work hours.

2020 LRDP MM BIO-4: Prior to any new development on previously undisturbed land, and as long as the species is considered a candidate endangered species or in the event that it becomes listed under the California Endangered Species Act, a qualified wildlife biologist shall conduct visual surveys of the development area during the flight season for the Crotch bumble bee (late February through late October). The following methodology shall apply unless the California Department of Fish and Wildlife (CDFW) releases species-specific survey protocol; in this case, CDFW's survey protocol shall apply.

- Between two and four evenly space presence/absence surveys shall be conducted for the highest detection probability, which, at present time, is the greatest between early spring (late March/early April) and early summer (late June/July). Surveys shall take place when temperatures are above 60°F, preferably on sunny days with low wind speeds (e.g., less than 8 miles per hour) and at least 2 hours after sunrise and 3 hours before sunset. On warm days (e.g., over 85°F), bumble bees will be more active in the mornings and evenings. Surveyors shall conduct transect surveys focusing on detection of foraging bumble bees and underground nests using visual aids such as butterfly binoculars. Even if no Crotch bumble bees are observed, a pre-construction survey shall be conducted within 30 days prior to start of construction. If no Crotch bumble bees or potential Crotch bumble bees are detected during the presence/absence surveys and the pre-construction survey, no further mitigation is required.
- If Crotch bumble bees or potential Crotch bumble bees are observed within the development area, a plan to protect Crotch bumble bee nests and individuals shall be developed and implemented in consultation with CDFW. The plan shall include, but not be limited to, the following measures:
- Specifications for construction timing and sequencing requirements (e.g., avoidance of raking, mowing, tilling, or other ground disturbance until late March to protect overwintering queens);

- Preconstruction surveys conducted within 30 days and consistent with any current available CDFW standards prior to the state of ground disturbing activities to identify active nests;
- Establishment of appropriate no-disturbance buffers for nest sites and construction monitoring by a qualified biologist to ensure compliance;
- Restrictions associated with construction practices, equipment, or materials that may harm bumble bees (e.g., avoidance of pesticides/herbicides, BMPs to minimize the spread of invasive plant species);
- Provisions to avoid Crotch bumble bees or potential Crotch bumble bees if observed away from a nest during project activity (e.g., ceasing of project activities until the animal has left the work area on its own volition); and
- Prescription of an appropriate restoration seed mix targeted for the Crotch bumble bee, including native plant species known to be visited by native bumble bee species and containing a mix of flowering plant species with continual floral availability through the entire active season of the Crotch bumble bee (March to October).

Rationale for Finding: Implementation of 2020 LRDP MM BIO-4, MM BIO-9a, and MM BIO-9b will reduce Project impacts on nesting birds, bird movement, and on Crotch bumble bees by conducting preconstruction surveys, and implementing avoidance measures should the species be encountered on the Project site.

iv. Cultural Resources

The Project would not cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to §15064.5. (*Appendix 1.0, Initial Study, pages 47 - 48)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project on buried cultural resources, should they be encountered during construction. Specifically, mitigation measure 2020 LRDP MM CUL-2 is feasible and is included in the MMRP to mitigate significant effects on cultural resources to a less than significant level.

2020 LRDP MM CUL-2: If buried cultural resources, such as chipped or ground stone, historic debris, building foundations, or non-human bone are inadvertently discovered during ground disturbing activities on the campus, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies or mitigation of impacts through data recovery programs such as excavation or detailed documentation. If cultural resources are discovered during construction activities, the construction contractor and lead contractor compliance inspector will verify that work is halted until appropriate treatment measures are implemented in coordination with the USACE and UC Merced.

Rationale for Finding: Implementation of 2020 LRDP MM CUL-2 will reduce the Project's impact on buried cultural resources by halting work in the area of the find, evaluating the significance of the resource, developing an appropriate treatment plan, and implementing it.

The project would not disturb any humans remains, including those interred outside of formal cemeteries. (*Appendix 1.0, Initial Study, pages 48 - 49)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project on buried human remains, should they be encountered during construction. Specifically, mitigation measure 2020 LRDP MM CUL-3 is feasible and is included in the MMRP to mitigate significant effects on human remains to a less than significant level.

2020 LRDP MM CUL-3: If human remains of Native American origin are discovered during ground disturbing activities, the Campus and/or developer will comply with state laws relating to the disposition of Native American burials, which falls within the jurisdiction of the California Native American Heritage Commission (Public Resources Code §5097). If human remains are discovered or recognized in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner of Merced County has been informed and has determined that no investigation of the cause of death is required; and if the remains are of Native American origin; the descendants from the deceased Native American have made a recommendation to the land owner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and associated grave goods as provided in Public Resources Code § 5097.98; or the California Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the Commission.

Rationale for Finding: Implementation of 2020 LRDP MM CUL-3 will reduce the Project's impact on buried cultural resources by halting work in the area of the find, contacting the County Coroner and the Native American Heritage Commission (as necessary), and handling the remains per directions of the Coroner or the Native American descendant.

v. Geology and Soils

The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i). Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, (ii) Strong seismic ground shaking, (iii) Seismic-related ground failure, including liquefaction, or (iv) Landslides. (*Appendix 1.0, Initial Study, pages 54 - 56)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate potentially significant effects related to seismic ground shaking, seismic-related ground failure, and landslides. Specifically, mitigation measure 2020 LRDP MM GEO-2 is feasible and is included in the MMRP to mitigate significant effects related to seismicity to a less than significant level.

2020 LRDP MM GEO-2: During project-specific building design, a site-specific geotechnical investigation shall be performed by a Certified Engineering Geologist or Licensed Geotechnical Engineer to assess detailed seismic, geologic, and soil conditions at each construction site. The study shall include an evaluation of liquefaction potential, slope stability, landslide potential, expansive and compressible soils, and other structural characteristics and shall identify specific geotechnical recommendations designed to mitigate for the site hazards. The geotechnical recommendations will be followed.

Rationale for Finding: Implementation of 2020 LRDP MM GEO-2 will reduce the Project's impact related to site seismicity as a site-specific geotechnical study will be conducted which will provide specific recommendations to mitigate the hazards identified at the Project site.

The Project would not 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. (*Appendix 1.0, Initial Study, page 56)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project related to lateral spreading, subsidence and liquefaction. Specifically, mitigation measure 2020 LRDP MM GEO-2 is feasible and is included in the MMRP to mitigate significant effects related to geology and soils to a less than significant level.

2020 LRDP MM GEO-2: During project-specific building design, a site-specific geotechnical investigation shall be performed by a Certified Engineering Geologist or Licensed Geotechnical Engineer to assess detailed seismic, geologic, and soil conditions at each construction site. The study shall include an evaluation of liquefaction potential, slope stability, landslide potential, expansive and compressible soils, and other structural characteristics and shall identify specific geotechnical recommendations designed to mitigate for the site hazards. The geotechnical recommendations will be followed.

Rationale for Finding: Implementation of 2020 LRDP MM GEO-2 will reduce the Project's impact related to site geologic conditions as a site-specific geotechnical study will be conducted which will provide specific recommendations to mitigate the hazards identified at the Project site.

The project would not 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. (*Appendix 1.0, Initial Study, page 56)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project related to expansive soils. Specifically, mitigation measure 2020 LRDP MM GEO-2 is feasible and is included in the MMRP to mitigate significant effects related to geology and soils to a less than significant level.

2020 LRDP MM GEO-2: During project-specific building design, a site-specific geotechnical investigation shall be performed by a Certified Engineering Geologist or Licensed Geotechnical Engineer to assess detailed seismic, geologic, and soil conditions at each construction site. The study shall include an evaluation of liquefaction potential, slope stability, landslide potential, expansive and compressible soils, and other structural characteristics and shall identify specific geotechnical recommendations designed to mitigate for the site hazards. The geotechnical recommendations will be followed.

Rationale for Finding: Implementation of 2020 LRDP MM GEO-2 will reduce the Project's impact related to construction of the building on expansive soils as a site-specific geotechnical study will be conducted which will provide specific recommendations to mitigate the hazards identified at the Project site.

The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Appendix 1.0, Initial Study, page 57)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project on unique paleontological resources, should they be encountered during construction. Specifically, mitigation measures 2020 LRDP MM CUL-4a and MM CUL-4b are feasible and are included in the MMRP to mitigate significant effects on paleontological resources to a less than significant level.

2020 LRDP MM CUL-4a: Prior to project construction, construction personnel will be informed of the potential for encountering significant paleontological resources. All construction personnel will be informed of the need to stop work in the vicinity of a potential discovery until a qualified paleontologist has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Construction personnel will also be informed of the requirements that unauthorized collection resources are prohibited.

2020 LRDP MM CUL-4b: A qualified paleontologist will be intermittently present to inspect exposures of Merhten Formation, North Merced Gravels, and Riverbank Formation during construction operations to ensure that paleontological resources are not destroyed by project construction.

Rationale for Finding: Implementation of 2020 LRDP MM CUL-4a and MM CUL-4b will reduce the Project's impact on paleontological resources by halting work in the area of the find,

evaluating the significance of the find, and implementing measures to protect it in place or properly remove the find.

vi. Greenhouse Gas Emissions

The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (*Appendix 1.0, Initial Study, pages 59 - 61)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate significant effects of the Project's GHG emissions. Specifically, mitigation measures 2020 LRDP MM GHG-1a, MM GHG-1b, and MM GHG-1c are feasible and are included in the MMRP to mitigate significant effects related to GHG emissions to a less than significant level.

2020 LRDP MM GHG-1a: UC Merced shall set a goal to reduce or control the increase in its GHG emissions such that the total emissions do not exceed 3,300 MTCO2e/year by the end of the year 2030. UC Merced shall monitor GHG emissions each year, monitor upcoming projects for their potential to increase the campus' GHG emissions, and implement project-specific and campus-wide GHG reduction measures to reduce the campus' GHG emissions in accordance with the 3,300 MTCO2e/year goal for 2030. In the event that adequate reduction is not achieved by these measures, UC Merced shall purchase renewable energy credits, or other verifiable GHG offsets to keep the net emissions at or below 3,300 MTCO2e/year.

2020 LRDP MM GHG-1b: UC Merced shall implement LRDP Mitigation Measures AQ-2a and -2b.

2020 LRDP MM GHG-1c: UC Merced shall periodically review new technologies that can be implemented to further reduce the campus' GHG emissions.

Rationale for Finding: Implementation of 2020 LRDP MM GHG-1a, MM GHG-1b, and MM GHG-1c will reduce the Project's impact related to GHG by monitoring the GHG emissions of the campus and implementing campus-wide GHG reduction measures; and reducing vehicular and area source emissions.

The Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (*Appendix 1.0, Initial Study, pages 61 - 62)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which reduce the Project's GHG emissions such that there is no conflict with a plan or policy adopted for reducing GHG emissions. Specifically, mitigation measures 2020 LRDP MM

GHG-1a, MM GHG-1b, and MM GHG-1c are feasible and are included in the MMRP to mitigate significant effects related to GHG emissions to a less than significant level.

2020 LRDP MM GHG-1a: UC Merced shall set a goal to reduce or control the increase in its GHG emissions such that the total emissions do not exceed 3,300 MTCO2e/year by the end of the year 2030. UC Merced shall monitor GHG emissions each year, monitor upcoming projects for their potential to increase the campus' GHG emissions, and implement project-specific and campus-wide GHG reduction measures to reduce the campus' GHG emissions in accordance with the 3,300 MTCO2e/year goal for 2030. In the event that adequate reduction is not achieved by these measures, UC Merced shall purchase renewable energy credits, or other verifiable GHG offsets to keep the net emissions at or below 3,300 MTCO2e/year.

2020 LRDP MM GHG-1b: UC Merced shall implement LRDP Mitigation Measures AQ-2a and -2b.

2020 LRDP MM GHG-1c: UC Merced shall periodically review new technologies that can be implemented to further reduce the campus' GHG emissions.

Rationale for Finding: Implementation of 2020 LRDP MM GHG-1a, MM GHG-1b, and MM GHG-1c will reduce the Project's impact related to GHG by monitoring the GHG emissions of the campus and implementing campus-wide GHG reduction measures; and reducing vehicular and area source emissions. Therefore, the Project would not conflict with applicable plans and policies for minimizing GHG emissions.

vii. Hazards and Hazardous Materials

The Project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 or create a significant hazard to the public or the environment. (*Appendix 1.0, Initial Study, page 68)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate the potentially significant effect that could result from exposure to previously unknown hazardous materials during Project site excavation and grading. Specifically, mitigation measure 2020 LRDP MM HAZ-4 is feasible and is included in the MMRP to mitigate significant effects related to hazardous materials exposure to a less than significant level.

2020 LRDP MM HAZ-4: In the event that non-permitted disposal sites, trash burn pits, wells, underground storage devices, or unknown hazardous materials are encountered during construction on the campus site, construction activities would cease until all contaminated areas are identified, and remediated or removed. This process of identification and remediation or removal would be coordinated with the Merced County Division of Environmental Health.

Rationale for Finding: Implementation of 2020 LRDP MM HAZ-4 will reduce the Project's impact related to potential exposure of construction crews to previously unknown contamination by stopping work and properly removing any contaminated materials that are encountered.

viii. Noise

The Project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Appendix 1.0, Initial Study, pages 79 - 82)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate the potentially significant effect that could result to sensitive receptors from exposure to high levels of construction noise. Specifically, mitigation measure 2020 LRDP MM NOISE-3 is feasible and is included in the MMRP to mitigate significant effects related to construction noise exposure to a less than significant level.

2020 LRDP MM NOI-3: Prior to initiation of construction on a project that is within 500 feet of off-site residential receptors, UC Merced shall develop and implement a construction noise mitigation program for that project that includes but is not limited to the following:

- Construction activities within 500 feet of any residences shall be restricted to the hours of 7:00 AM and 6:00 PM on weekdays and Saturdays with no construction on Sundays and holidays.
- All noise-producing project equipment and vehicles using internal combustion engines shall be equipped where appropriate with exhaust mufflers and air-inlet silencers in good operating condition that meet or exceed original factory specifications.
- Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- All mobile or fixed noise-producing equipment used on the project that is regulated for noise output by local, state or federal agency shall comply with such regulation while engaged in project-related activities.
- Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment, where practicable.
- Material stockpiles, mobile equipment staging, construction vehicle parking, and maintenance areas shall be located as far as practicable from noise-sensitive land uses.
- Stationary noise sources such as generators or pumps shall be located away from noise-sensitive land uses as feasible.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. No project-related public address loudspeaker, two-way radio, or music systems shall be audible at any adjacent noise-sensitive receptor except for emergency use.

- The erection of temporary noise barriers shall be considered where project activity is unavoidably close to noise-sensitive receptors.
- The noisiest construction operations shall be scheduled to occur together to avoid continuing periods of the greatest annoyance, wherever possible.
- Construction vehicle trips shall be routed as far as practical from existing residential uses.
- The loudest campus construction activities, such as demolition, blasting, and pile driving, shall be scheduled during summer, Thanksgiving, winter, and spring breaks when fewer people would be disturbed by construction noise.
- Whenever possible, academic, administrative, and residential areas that will be subject to construction noise shall be informed a week before the start of each construction project.

Rationale for Finding: Implementation of 2020 LRDP MM NOISE-3 will reduce the Project's impact related to potential exposure of sensitive receptors to high levels of construction noise by limiting the hours of construction, requiring use of mufflers and other noise reducing measures, conducting construction when small numbers of receptors are near the project site, and informing receptors of upcoming construction.

The Project would not result in generation of excessive groundborne vibration or groundborne noise levels. (*Appendix 1.0, Initial Study, pages 82 - 83)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate the potentially significant effect that could result to sensitive equipment from exposure to high levels of construction vibrations. Specifically, mitigation measures 2020 LRDP MM NOISE-4a and MM NOISE-4b are feasible and are included in the MMRP to mitigate significant effects related to construction vibrations to a less than significant level.

2020 LRDP MM NOI-4a: UC Merced shall avoid impact pile driving where possible in vibration-sensitive areas. Drilled piles or the use of vibratory pile driving will be used where geological conditions permit their use. For impact pile driving activities occurring within 50 feet of typical structures, limit groundborne vibration due to construction activities to 0.50 inch/second, ppv (limit of potential for damage to typical structures) in the vertical direction at sensitive receptors. Since in many cases the information available during the preliminary engineering phase would not be sufficient to define specific vibration mitigation measures, UC Merced shall describe and commit to a mitigation plan to minimize construction vibration damage using all feasible means available.

2020 LRDP MM NOI-4b: For construction adjacent to highly sensitive uses such as laboratories, UC Merced shall apply additional measures as feasible, including advance notice to occupants of sensitive facilities to ensure that precautions are taken in those facilities to protect ongoing activities from vibration effects.

Rationale for Finding: Implementation of 2020 LRDP MM NOISE-4a and MM NOISE-4b will reduce the Project's impact related to potential exposure of sensitive equipment to high levels of

construction vibrations by avoiding pile driving and by informing campus departments with sensitive equipment of upcoming construction activities.

ix. Public Services and Recreation

The Project would not 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 park services. The project would not 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 (*Appendix 1.0, Initial Study, pages 94 – 95; 97-98)*

FINDING: The University finds that changes or alterations have been incorporated into the Project which mitigate potentially significant effects that could result to Lake Yosemite Regional Park. Specifically, mitigation measures 2020 LRDP MM PUB-6a, MM PUB-6b, and MM PUB-6c are feasible and are included in the MMRP to mitigate potentially significant effects related to regional park use to a less than significant level.

2020 LRDP MM PUB-6a: UC Merced shall work with the County to avoid physical deterioration of existing facilities at Lake Yosemite Regional Park, and/or improve park facilities within the existing park site as necessitated by the increased uses associated with development of the campus.

2020 LRDP MM PUB-6b: UC Merced will pay its fair share of the cost of necessary improvements to the regional park. UC Merced's share of funding will be based on the percentage that on campus residential population represents of the total population in eastern Merced County at the time that an improvement is implemented.

2020 LRDP MM PUB-6c: In recognition of the sensitive resources present on lands immediately adjacent to the regional park, all regional park improvement projects that are implemented by the County within 250 feet of the park's eastern boundary pursuant to 2020 LRDP Mitigation Measures PUB-6a and PUB-6b above, will implement mitigation measures to avoid and minimize indirect effects on biological resources.

Rationale for Finding: Implementation of 2020 LRDP MM PUB-6a, MM PUB-6b, and MM PUB-6c, which requires the Campus to work with the County to address park over use by campus population, will reduce the Project's impact related to regional park use.

E. FINDINGS ON PROJECT ALTERNATIVES

1. Alternatives Screened Out from Detailed Consideration in the EIR

The University finds that all of the alternatives eliminated from further consideration in the Draft EIR are infeasible, would not meet most project objectives and/or would not reduce or avoid any of the significant effects of the Project, for the reasons detailed in Section 5.3 of the Draft EIR.

2. Alternatives Analyzed in the EIR

In compliance with CEQA and the CEQA Guidelines, the EIR evaluated a range of reasonable alternatives to the Project. The EIR analysis examined the potential feasibility of each alternative, its environmental effects, and its ability to meet the project objectives. The alternatives analysis included analysis of a no-project alternative and identified the environmentally superior alternative. The Draft EIR evaluated three alternatives to the Project: No Project Alternative, Reduced Program Alternative, and Reduced Building Footprint Alternative.

Brief summaries of these alternatives and findings regarding these alternatives are provided below.

Alternative 1: No Project Alternative: Under the No Project alternative, the UCM-ME Building would not be constructed and there would be no modifications to the existing Cottonwood Meadow detention basins, site access, or infrastructure and the Project site would continue to remain undeveloped. The Departments of Psychological Sciences and Public Health would remain in the Social Sciences and Management (SSM) Building. Without the vacated space within the SSM Building, the Department of Economics would remain in the School of Social Sciences, Humanities and Arts (SSHA) Building. The medical education program would be developed by accommodating it in existing buildings. With respect to enrollment and employment increase, the No Project alternative would involve the same population increase as the Project if the Campus is able to accommodate the new and expanded programs in existing buildings or the alternative would involve a smaller population increase due to lack of space.

FINDING: The EIR determined that the No Project Alternative would be environmentally superior to the Project being approved. However, the alternative would not achieve most of the key objectives of the Project, including the objectives of providing space for the establishment of the ME program, space for growth in the Department of Public Health, and space for the growth in the Department of Psychological Sciences and creation of an Institute for Child and Family Sciences. It would not allow UC Merced to consolidate and collocate these existing and new programs, including the ME program in one facility so as to optimally draw upon the intellectual, technological, and material resources of the UC Merced programs and facilities, and enhance intellectual exchange and collaboration between related programs, and would not provide classroom space to support campus population growth, nor maximize energy efficiency, sustainability, and cost-effectiveness of these programs by housing them in a consolidated, state-

of-the-art building designed to balance energy use and cost efficiencies. Pursuant to Public Resources Code § 21081(a)(3) and CEQA Guidelines § 15091(a)(3), The Regents finds that the specific economic, legal, social, technological, or other considerations described above, including failure to meet project objectives, render the No Project Alternative infeasible. The Regents, therefore, rejects this alternative for the reasons listed above.

Alternative 2: Reduced Program Alternative: The Reduced Program Alternative was developed in order to reduce the size of the proposed building. Under this alternative, only the medical education program would be accommodated in the new building. Other existing campus departments would remain in their current locations, i.e., the Departments of Psychological Sciences and Public Health would remain in the SSM Building and the Department of Economics would remain in the SSHA Building.

Under this alternative, the proposed medical education building would be reduced in size from approximately 190,000 ogsf to approximately 145,300 ogsf, a reduction in size of about 24 percent. With a smaller amount of building space and still maintaining a four-story building, the building footprint would be reduced by about 20 to 24 percent, and the associated parking would be reduced by approximately 50 percent. As with the Project, the new building under this alternative would also be located in Cottonwood Meadow and filling of the storm water basins on the project site would be required. The access roadway, new storm water detention basin, and other infrastructure improvements would be the same as under the Project.

The anticipated net new population accommodated in the building would be 845 persons (i.e., 784 new students, and 61 new faculty and staff), compared to 1,318 persons under the Project (1,269 students and 49 faculty/staff). However, the rest of the project-related new population would be accommodated in existing buildings, and the total increase in campus population would be comparable to that under the Project.

FINDING: The EIR determined that the Reduced Program Alternative would result in comparable operational impacts as the Project. However, due to the smaller building size and footprint, the alternative's construction-phase impacts would be somewhat reduced compared to the Project. The alternative would, however, not achieve the vast majority of the key objectives of the Project, including the objectives of providing space for growth in the Department of Public Health; providing space for the growth in the Department of Psychological Sciences and creation of an Institute for Child and Family Sciences; consolidating and collocating the existing and new programs, including the ME program in one facility so as to optimally draw upon the intellectual, technological, and material resources of the UC Merced programs and facilities, and enhance intellectual exchange and collaboration between related programs. It will also not provide classroom space to support campus population growth, nor maximize energy efficiency, sustainability, and cost-effectiveness of these programs by housing them in a consolidated, state-of-the-art building designed to balance energy use and cost efficiencies. Pursuant to Public Resources Code § 21081(a)(3) and CEQA Guidelines § 15091(a)(3), The Regents finds that the specific economic, legal, social, technological, or other considerations described above, including failure to meet project objectives, render the Reduced Program Alternative infeasible. The Regents, therefore, rejects this alternative for the reasons listed above.

***Alternative 3: Reduced Building Footprint Alternative*:** The Reduced Building Footprint Alternative was developed in order to decrease the development footprint of the UCM-ME Building while maintaining the building program planned under the Project. Under this alternative, the new building would accommodate the co-location of the medical education program and the health and behavioral sciences programs as planned for the Project but the building footprint would be reduced by increasing the height of the building. Thus, the building would be a five-story (approximately 75 feet in height [70 feet plus a 5-foot parapet]) structure, compared to a four-story/65-foot-tall structure under the Project. The Reduced Building Footprint Alternative would result in a decrease in the building footprint by approximately 20 percent, or from 2.05 acres under the Project to approximately 1.64 acres for the taller building.

The same amount of parking would be provided as under the Project. As with the Project, the new building under this alternative would also be located in Cottonwood Meadow and filling of the storm water basins on the project site would be required. The access roadway, new storm water detention basin, and other infrastructure improvements would be the same as under the Project.

The new building under this alternative would accommodate the same number of new persons (1,318 persons, including 1,269 students and 49 faculty/staff) as the Project, and the total increase in campus population would be comparable to that under the Project.

FINDING: The EIR determined that the Reduced Building Footprint Alternative would result in comparable construction-phase and operational impacts as the Project. However, due to the smaller building footprint, the alternative's impacts on tribal cultural resources would be reduced compared to the Project. The alternative would achieve the vast majority of the key objectives of the Project, including the objectives of providing space for the new ME program; providing space for growth in the Department of Public Health; providing space for the growth in the Department of Psychological Sciences and creation of an Institute for Child and Family Sciences; consolidating and collocating the existing and new programs, including the ME program in one facility so as to optimally draw upon the intellectual, technological, and material resources of the UC Merced programs and facilities, and enhance intellectual exchange and collaboration between related programs. It would also provide classroom space to support enrollment growth, and maximize energy efficiency, sustainability, and cost-effectiveness of these programs by housing them in a consolidated, state-of-the-art building designed to balance energy use and cost efficiencies. However, increasing the height of the Project by adding one more story would substantially increase the cost of the Project due to the structural requirements for the additional floor. As the building program also requires certain functions to be adjacent to each other, the reduced horizontal floor area would result in building inefficiencies with additional cost implications. The additional costs would outweigh the minor environmental benefit provided by the reduced footprint. Pursuant to Public Resources Code § 21081(a)(3) and CEQA Guidelines § 15091(a)(3), The Regents finds that the specific economic, legal, social, technological, or other considerations described above, render the Reduced Building Footprint Alternative infeasible. The Regents, therefore, rejects this alternative for the reasons listed above.

F. FINDING ON RESPONSES TO COMMENTS ON THE DRAFT EIR AND REVISIONS TO THE FINAL EIR

Chapter 3.0 of the Final EIR includes the comments received on the Draft EIR and responses to those comments. The focus of the responses to comments is on the disposition of significant environmental issues as raised in the comments, as specified by CEQA Guidelines § 15088(b). The University finds that responses to comments made on the Draft EIR and revisions to the Final EIR merely clarify and amplify the analysis presented in the document and do not trigger the need to recirculate per CEQA Guidelines §15088.5(b).

G. OTHER FINDINGS

Consistent with State CEQA Guidelines § 15064.3, subdivision (b), Chapter 7 of the Draft EIR includes an updated supplemental program-level transportation impact analysis of campus growth through 2030 under the 2020 LRDP based on vehicle miles traveled ("VMT") metrics. The updated analysis replaces in whole the previous LRDP transportation impact analysis contained in the 2020 LRDP SEIR.

The University makes the following findings with respect to the updated transportation impacts of the 2020 LRDP.

Findings on Less than Significant Transportation Impacts of 2020 LRDP

Based on the transportation assessment in the EIR, the University has determined that campus development and growth under the 2020 LRDP will have less than significant transportation impacts as summarized in the table below. The rationale for the conclusion that each impact listed in the table will be less than significant is based on the detailed analysis of these impacts in Chapter 7 of the Draft EIR and the cumulative impact is also discussed in Chapter 7 of the Draft EIR and determined to be less than significant.

Table 2: Summary of Less Than Significant Transportation Impacts of the 2020 LRDP

Environmental Impacts
Transportation
LRDP Impact TRANS-1: Implementation of the 2020 LRDP would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
LRDP Impact TRANS-2: Implementation of the 2020 LRDP would not exceed an applicable VMT threshold of significance under 2030 with LRDP conditions and therefore would not conflict with State CEQA Guidelines Section 15064.3, subdivision (b).

Environmental Impacts
LRDP Impact TRANS-3: Implementation of the 2020 LRDP would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
LRDP Impact TRANS-4: The campus road network system would be adequately sized and designed to facilitate emergency access vehicles.
Cumulative Impact C-TRANS-1: Implementation of the 2020 LRDP would not exceed an applicable VMT threshold of significance under 2030 plus LRDP conditions.

Findings on Deletion of Previously Adopted LOS-Based Mitigation Measures

The University finds that the updated transportation analysis is compliant with State CEQA Guidelines § 15064.3, subdivision (b) and replaces in whole the previous LRDP transportation impact analysis contained in the 2020 LRDP SEIR, including the level of service (LOS) impacts (LRDP Impact TRANS-1 and Cumulative Impact C-TRANS-1) that were found to be significant and were to be mitigated with the implementation of mitigation measure 2020 LRDP MM TRANS-1.

Because automobile delay, as described solely by LOS or other similar measures of vehicle congestion, is no longer considered a significant effect under CEQA, 2020 LRDP MM TRANS-1 is no longer applicable to new development on the campus and is hereby deleted from the 2020 LRDP MMRP. The University also finds, based on the EIR analysis (pages 7-29 through 7-32) that deletion of 2020 LRDP MM TRANS-1 will not itself result in a new or substantially more severe significant environmental impact in other, non-transportation areas.

III. APPROVALS

The University hereby takes the following actions:

1) The University certifies the Final EIR.

2) The University adopts as conditions of approval of the Project all applicable mitigation measures within the responsibility and jurisdiction of the University.

3) The University adopts the Mitigation Monitoring and Reporting Program for the Project.

4) The University adopts the Findings in their entirety.

5) Having certified the Final EIR, incorporated mitigation measures into the Project, and adopted the Mitigation Monitoring and Reporting Program, the University hereby approves the Project, and directs staff to prepare and file a Notice of Determination for the Project.