

University of California, Irvine

Public Review Draft

East Campus Student Apartments Phase 5 Project Tiered Initial Study/Mitigated Negative Declaration



Lead Agency:

UNIVERSITY OF CALIFORNIA

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April 2026

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Table of Contents

1.0	Introduction.....	3
1.1	CEQA Document Tiering.....	4
1.2	Initial Study.....	4
1.3	Documents Incorporated by Reference.....	5
1.4	Public Review Process.....	5
2.0	Description of Proposed Project	7
2.1	Project Location and Setting	7
2.2	Project Characteristics	13
2.3	Discretionary Approvals.....	24
3.0	Initial Study Checklist	25
4.0	Evaluation of Environmental Impacts.....	27
4.1	Aesthetics.....	29
4.2	Agriculture and Forestry Resources.....	33
4.3	Air Quality	35
4.4	Biological Resources	59
4.5	Cultural Resources.....	65
4.6	Energy	68
4.7	Geology and Soils.....	74
4.8	Greenhouse Gas Emissions	83
4.9	Hazards and Hazardous Materials.....	96
4.10	Hydrology and Water Quality.....	106
4.11	Land Use and Planning.....	114
4.12	Mineral Resources	116
4.13	Noise	118
4.14	Population and Housing.....	135
4.15	Public Services	137
4.16	Recreation	140
4.17	Transportation.....	142
4.18	Tribal Cultural Resources	146
4.19	Utilities and Service Systems.....	150
4.20	Wildfire	155
4.21	Mandatory Findings of Significance.....	158
5.0	References.....	160

List of Figures

Figure 1: Regional Map.....	9
Figure 2: Site Vicinity Map	10
Figure 3: Existing LRDP Land Use Plan Designations	11
Figure 4: Proposed LRDP Land Use Plan Designations	12
Figure 5: Conceptual Site Plan A	14
Figure 6: Conceptual Site Plan B	15
Figure 7: Site A Conceptual Rendering 1	16

Figure 8: Site A Conceptual Rendering 2	17
Figure 9: Site B Conceptual Rendering 1	18
Figure 10: Site B Conceptual Rendering 2.....	19

List of Tables

Table 1: Existing Land Uses	13
Table 2: Conceptual Unit Type Summary	20
Table 3: State and Federal Ambient Air Quality Standards	36
Table 4: South Coast Air Basin Attainment Status	39
Table 5: Air Contaminants and Associated Public Health Concerns.....	42
Table 6: Ambient Air Quality Data.....	44
Table 7: Sensitive Receptors	45
Table 8: South Coast Air Quality Management District Emissions Thresholds.....	46
Table 9: Construction-Related Emissions	48
Table 10: Long-Term Operational Emissions	49
Table 11: Equipment-Specific Grading Rates.....	52
Table 12: Localized Significance of Construction Emissions	52
Table 13: Localized Significance of Operational Emissions.....	53
Table 14: Project Energy Consumption During Construction	71
Table 15: Annual Energy Consumption During Operations	72
Table 16: Description of Greenhouse Gases.....	91
Table 17: Construction-Related Greenhouse Gas Emissions	92
Table 18: Project Greenhouse Gas Emissions.....	93
Table 19: City of Irvine Land Use Compatibility Guidelines	120
Table 20: City of Irvine Noise Ordinance Levels.....	121
Table 21: Noise Measurements	122
Table 22: Sensitive Receptors	123
Table 23: Typical Construction Noise Levels.....	125
Table 24: Project Construction Noise Levels.....	126
Table 25: Stationary Operational Noise.....	129
Table 26: Typical Construction Equipment Vibration Levels	131

List of Appendices

Appendix A: Air Quality, Greenhouse Gas, and Energy Modeling Data
Appendix B: Biological Resource Assessment
Appendix C: Phase I Environmental Site Assessment for 4600 Campus Drive
Appendix D: Phase II Environmental Site Assessment for 4600 Campus Drive
Appendix E: Environmental Database Review (EDR) Report
Appendix F: Noise Measurement Data
Appendix G: VMT Analysis

1.0 INTRODUCTION

The East Campus Student Apartments Phase 5 Project (proposed Project or Project) is a student housing development located within the larger University of California Irvine (UCI) campus. The California Environmental Quality Act (CEQA) requires California public agencies at all levels to consider the environmental consequences of projects for which they have discretionary authority. The public agency with the principal responsibility for carrying out or approving a project is the “lead agency.” As the Project is located on the UCI Campus, the University of California will act as the lead agency for the purposes of this Project.

The proposed Project would be implemented under the 2007 Long Range Development Plan, A Framework to Guide Physical Development at the University of California, Irvine, through 2025-2026, as amended (2007 LRDP). The 2007 LRDP is a comprehensive policy and land use plan that guides the growth of a campus. The plan is neither an enrollment plan nor an implementation plan; rather, it provides a framework of policies and guidelines to support key academic and student life goals, identifies development objectives, delineates campus land uses, and estimates the new building space needed to support projected program expansion through the planning horizon year. The 2007 LRDP for the campus provides a framework of policies and guidelines to shape land use and physical development at UCI through 2025-2026.

The 2007 Long Range Development Plan Final Environmental Impact Report (2007 LRDP EIR) analyzes potential environmental impacts associated with the implementation of the 2007 LRDP pursuant to CEQA Guidelines Section 15168. According to CEQA Guidelines, §15168(c), subsequent activities in a program must be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared. If the lead agency finds that pursuant to Public Resources Code §21166 and CEQA Guidelines §15162 no new effects could occur or no new Mitigation Measures would be required, then the lead agency can approve the activity as being within the scope of the project covered by a Program EIR (CEQA Guidelines §15168(c)(2)). Otherwise, further environmental review would be required if circumstances under Public Resources Code §21166 and CEQA Guidelines §15162 are triggered. The CEQA Guidelines go on to state that where subsequent activities involve site specific operations, the lead agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the Program EIR (CEQA Guidelines, §15168(c)(4)).

Following a preliminary review of the proposed Project, the University of California, as the CEQA Lead Agency, has determined that East Campus Student Apartments Phase 5 constitutes a “Project” that is subject to CEQA. Based upon the legal principles outlined above, University staff have prepared this Initial Study to determine whether any of the circumstances under Public Resources Code §21166 and CEQA Guidelines §15162 are triggered by the Project such that further environmental review would be required. Pursuant to CEQA Guidelines Section 15152, this Initial Study tiers from the certified 2007 LRDP EIR and its amendments and evaluates only those effects that are specific to the proposed Project or represent new significant impacts or a substantial increase in the severity of impacts beyond those previously analyzed, using 2007 LRDP buildout as the baseline.

1.1 CEQA DOCUMENT TIERING

When an EIR has been prepared and certified for a program or plan consistent with CEQA requirements, a Lead Agency, should, for a later project pursuant to or consistent with the program or plan, concentrate on the environmental effects that were not examined as significant effects on the environment in the prior EIR, refer to Public Resources Code §21068.5. In those situations where a programmatic document does not specifically address and analyze the impacts and Mitigation Measures necessary for a project-level action, the project-level environmental review can be streamlined by tiering from the program-level documents. Agencies are encouraged to tier their CEQA analysis to avoid repetition of issues and to focus on the issues for decision at each level of review. Subsequent CEQA compliance involves either the preparation of a further EIR (subsequent or supplemental) or a further Mitigated Negative Declaration.

Pursuant to CEQA Guidelines §15152(f)(3), for purposes of tiering, significant environmental effects have been “adequately addressed” if the Lead Agency determines that the significant environmental effects:

- Have been mitigated or avoided as a result of the prior EIR and adopted findings in connection with that prior EIR; or
- Have been examined at a sufficient level of detail in the prior EIR to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or by other means with the approval of the later project.

Where appropriate, this Initial Study tiers off the 2007 LRDP EIR. As outlined in CEQA Guidelines §15152, tiering is appropriate when the sequence of analysis follows from an EIR prepared for a general plan, policy, or program to an EIR of lesser scope, or to a site-specific EIR or negative declaration. Therefore, the baseline of analysis in this Initial Study is buildout of the 2007 LRDP as analyzed in the 2007 LRDP EIR its subsequent amendments. Under CEQA, the 2007 LRDP EIR, as amended, is considered the first tier document. This Initial Study, for the proposed Project, is being prepared to determine whether a second tier document would be required. This Initial Study will identify impacts that were adequately analyzed in the LRDP EIR. While subsequent analyses can rely on previous tier analyses, it also has the obligation to discuss any changed circumstances or new information that might alter the previous analyses.

1.2 INITIAL STUDY

Consistent with the Public Resource Code and CEQA Guidelines (refer to *Section 1.1, CEQA Document Tiering*, above), the 2007 LRDP EIR is incorporated into the analysis and utilized to focus the discussion on new effects which had not been considered prior, or effects that may be more severe than what was previously analyzed. As noted above, the baseline of analysis of this initial study is buildout of the 2007 LRDP, which is analyzed in the 2007 LRDP EIR. While potentially significant impacts may be identified in the Initial Study requiring further analysis, ultimately those impacts may be found less than significant with or without Mitigation, project changes, or alternatives to the project. In addition, adopted LRDP EIR Mitigation Measures may require site specific studies for certain topical areas. Accordingly, when a site specific study is required for a particular topical area and the study has not been finalized to date, this Initial Study may determine that the topical area will be discussed in detail in a further EIR even though it may not result in a new or more significant effect than what was previously studied in the LRDP EIR. Following completion of the Initial Study, University of California will make a formal determination as to whether the Project may or may not have potentially significant and unmitigable environmental impacts.

A determination that a project's impacts were adequately addressed in the programmatic document and/or that a Project will have less than significant effects would result in the preparation of a Mitigated Negative Declaration. A determination that a project may have new or more severe significant impacts on the environment would require the preparation of a further EIR to evaluate issues identified in this Initial Study.

1.3 DOCUMENTS INCORPORATED BY REFERENCE

Both the 2007 LRDP and 2007 LRDP EIR documents were utilized during preparation of this Initial Study and are incorporated into this document by reference. The documents are available for review at the UCI Office of Campus Planning and Sustainability, located at 455 Aldrich Hall, Irvine, CA 92697.

The LRDP is also available for viewing electronically at <https://planningandsustainability.uci.edu/physical/campus-lrdp.php>, while the LRDP EIR is available for viewing electronically at <https://planningandsustainability.uci.edu/environmental/campus-feir.php>.

1.4 PUBLIC REVIEW PROCESS

CEQA Statutes and Guidelines (Pub. Resources Code, §21000, et seq. and California Code of Regulations, Title 14, §15000 et seq.), sets forth the rules, regulations, and procedures for the implementation of CEQA, which includes the requirements and steps for preparation of an IS. This IS was prepared as required by CEQA Guidelines Sections 15070 through 15075.

The purpose of the IS is to provide an initial evaluation of the potential impacts of the proposed project. Based on that evaluation, it has been determined that the proposed Project would result in No Impact, a Less than Significant Impact, Less Than Significant with Project-level Mitigation Incorporated, or Project Impact Adequately Addressed in LRDP EIR for each of the impact criteria.

University of California has provided the Notice of Intent (NOI) to adopt a Mitigated Negative Declaration (MND) to the CA Governor's Office of Land Use and Climate Innovation, formerly Governor's Office of Planning and Research (OPR), State Clearinghouse (SCH). In conjunction with the NOI, University of California has released the IS/MND for a public review period of 30 days in accordance with State CEQA Guidelines.

During the public review period, the IS/MND, including technical appendices, can be accessed on UCI's website at <https://planningandsustainability.uci.edu/environmental/review.php>, and is available for review at the locations listed below.

- Campus Planning and Sustainability, Aldrich Hall (by appointment only¹)
- Langson Library, Main Campus
- Orange County Public Library, University Park Branch

¹ Please contact Lindsey Hashimoto at hashimol@uci.edu to schedule an appointment.

In reviewing the IS/MND, affected public agencies and interested members of the public should focus on the adequacy of the document in identifying and analyzing the project's potential environmental impacts and the ways in which the potentially significant impacts can be avoided or mitigated. If public agencies or any members of the public have comments on the IS/MND, they can be sent to:

Lindsey Hashimoto, Principal Environmental Planner
Campus Planning & Sustainability
University of California, Irvine
455 Aldrich Hall
Irvine, CA 92697
ceqa@uci.edu

Comments sent via email should include "East Campus Student Apartment Phase 5 Project" in the subject line and a valid mailing address.

Following receipt and evaluation of comments from agencies, organizations, and/or individuals, University of California will determine whether these comments raise any substantial new environmental issues. If so, further documentation may be required. If not, or if the issues raised do not provide substantial evidence that the project would have a significant effect on the environment, the IS/MND and the project will be considered for adoption and approval, respectively.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 PROJECT LOCATION AND SETTING

The University of California Irvine (UCI) campus is located in the southwestern portion of the City of Irvine, Orange County, California. See **Figure 1: Regional Map**. Regionally, the cities of Costa Mesa and Newport Beach are to the west, Tustin and Santa Ana are located to the north, Lake Forest is to the east, and Laguna Hills and Laguna Woods are to the south. Regional access to the Project site is provided via Interstate 405 (I-405) and State Route 73 (SR-73).

The Project is located in the eastern portion of the UCI campus, referred to as East Campus. The approximately 430-acre East Campus sector accommodates a large student residential community comprised of a variety of housing and support facilities for undergraduates, graduate and professional students, and student families. A key feature of this sector is the Anteater Recreation Center (ARC), a sports and fitness facility. The East Campus is generally bounded by Campus Drive to the north, East Peltason Drive to the west, Culver Drive to the east, and Anteater Drive to the south.

The proposed student housing Project would provide up to 1,100 beds across two sites, Site A and Site B, approximately 0.2 miles apart along Campus Drive, see **Figure 2: Site Vicinity Map**. Site A is approximately 1.75 acres, located at the southwest corner of the Campus Drive and California Avenue intersection. Site B is approximately 1.5 acres, located at the southeastern corner of the Campus Drive and E Peltason Drive intersection. The Project sites are located adjacent to the existing Puerta del Sol student apartments (East Campus Apartments Phase 3) and Plaza Verde Apartments (East Campus Apartments Phase 4).

Project Background

The proposed Project would serve existing demand for student housing at UCI, moving the campus towards its LRDP goal, amended in 2019, of providing housing for 60 percent of students on campus.

Four previous phases of the East Campus Student Apartments on the UCI campus have been completed. Phase 1 (Vista Del Campo) opened in 2004 and consists of 488 units and 1,488 beds. Phase 2 (Vista Del Campo Norte) opened in 2006 and consists of 545 units and 1,564 beds. Thirdly, Phase 3 (Puerta Del Sol and Camino Del Sol) opened in 2008 and consists of 720 units with 2,111 beds. Phase 4-A (Plaza Verde) opened in 2019 and consists of 1,441 beds and Phase 4-B (Plaza Verde 2) opened in 2022 and consists of 1,077 beds.

The Phase 5, proposed Project, would provide approximately 308 units and up to an additional 1,100 beds.

LRDP Amendment # 5 and Consistency with the LRDP

The applicable land use plan is the 2007 LRDP and the University is the only agency with land use jurisdiction over University projects located on the campus. Both Project sites are designated as Academic & Support in the LRDP, which allows for classrooms; instructional and research laboratories; undergraduate, graduate, and professional schools and programs; and ancillary support facilities. See **Figure 3: Existing LRDP Land Use Plan Designations**. The proposed residential use would not be consistent with the existing land use designation. Therefore, as part of the Project, UCI proposes to amend the 2007 LRDP land use designation to Student Housing for both proposed Project sites. The Student Housing designation allows for residential facilities for single undergraduate and graduate students, student

groups, students with families, and other university affiliates. Other permitted uses include residential parking, childcare and pre-school facilities, recreation facilities, meeting and classroom space, food service and retail, and other residential support uses. Therefore, the Project would require LRDP Amendment #5, which would allow for the residential uses proposed on Site A and Site B. See **Figure 4: Proposed LRDP Land Use Plan Designations**.

Although residential use was not assumed on Site A and Site B in the 2007 LRDP, the LRDP EIR analyzed an assumed on-campus student housing capacity of 17,637 beds. Additionally, the LRDP Student Housing Amendment, approved by the Regents on September 18, 2019, increased the capacity to 22,000 beds. There are currently 18,076 existing beds on the UCI Campus.

The proposed Project would include construction of up to 1,100 beds across the two sites, increasing on-campus student housing to 19,176 beds. Therefore, the proposed up to 1,100 beds, would be within the student housing capacity for the UCI Campus and corresponding assumptions analyzed in the LRDP EIR and LRDP Student Housing Amendment (2019). As such, the proposed Project would be consistent with the existing assumptions for student housing and would serve the planned student population on campus. This IS/MND analyzes the proposed student apartments and LRDP Amendment #5 together as the Project.

Existing Conditions

Project Site A

Site A is currently developed and is occupied by a vacant office building previously occupied by the American Heart Association under a previous ground lease and Parking Lot AHA. Existing vehicular access to Site A is provided via two full access driveways along Adobe Circle. Existing pedestrian facilities for Site A include sidewalks along Campus Drive and California Avenue, there is currently no sidewalk on Adobe Circle along the Project frontage. Site A has existing ornamental landscaping with trees focused around the parking lot area. Existing lighting includes parking lot light poles, building illumination, light poles along on the adjacent roadways.

Project Site B

Site B is located directly north of the UCI Public Services Building (PSB) and is currently occupied by Parking Lot 1C which includes UCI staff commuter parking spaces, UCI Police (UCIPD) fleet vehicle parking spaces, and an electric vehicle ChargePoint Charging Station. Existing vehicular access to Site B is provided via one full access driveway along Adobe Circle. Existing pedestrian facilities include sidewalks along Campus Drive, E Peltason Drive, and Adobe Circle along the Project frontage. Site B has existing ornamental landscaping along the Site perimeter and within the parking lot. A vegetated drainage swale that served as a Mitigation Site for a previous UCI project (Verano Place Apartments Unit Four Redevelopment project), borders Site B to the east. The Project does not include any temporary or permanent impacts to the Mitigation Site. Existing lighting includes parking lot light poles and light poles along on the adjacent roadways.



Figure 1: Regional Map
East Campus Student Apartments Phase 5 Project



Not to scale



Figure 2: Site Vicinity Map

East Campus Student Apartments Phase 5 Project



Not to scale

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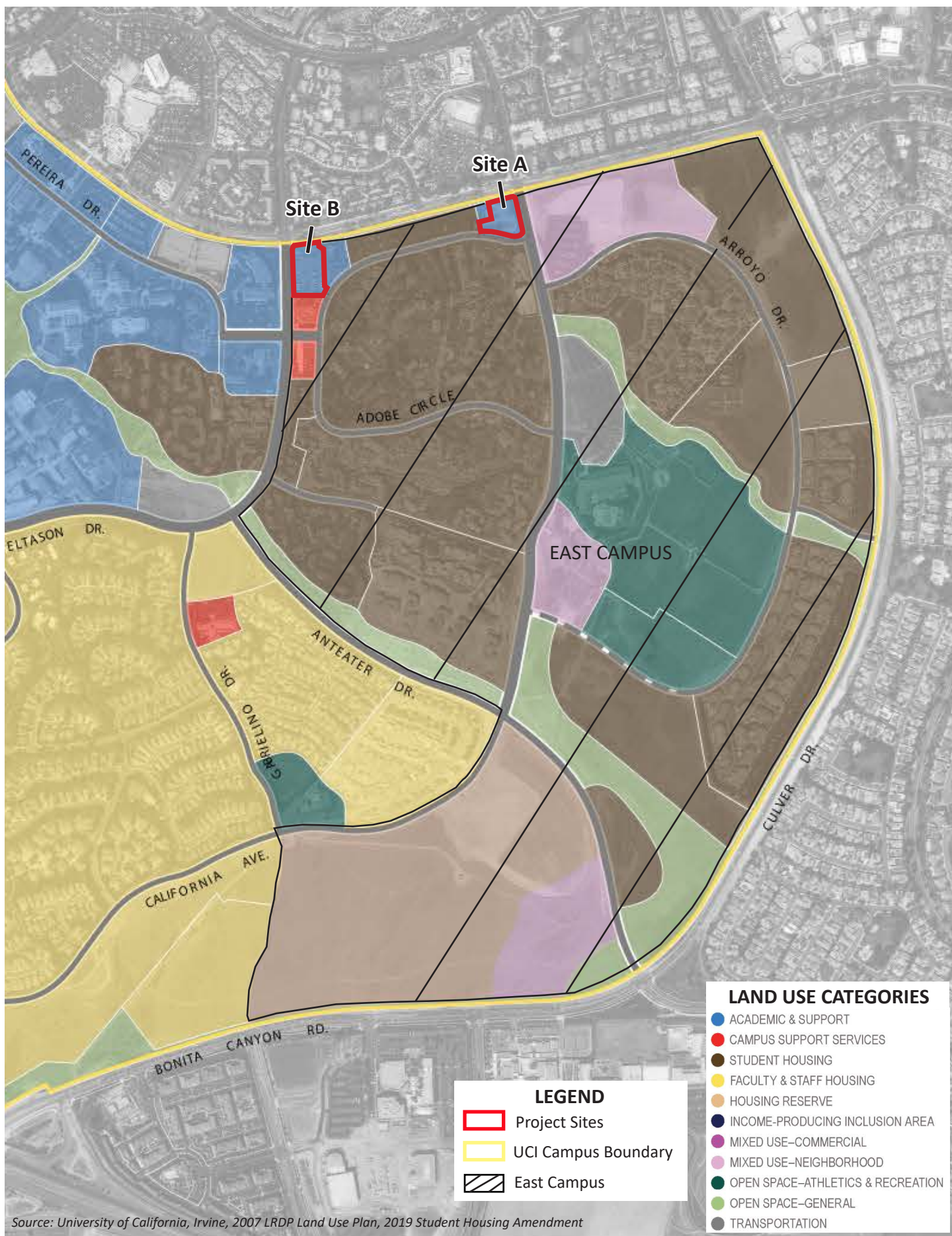


Figure 3: Existing LRDP Land Use Plan Designations
East Campus Student Apartments Phase 5 Project



Not to scale

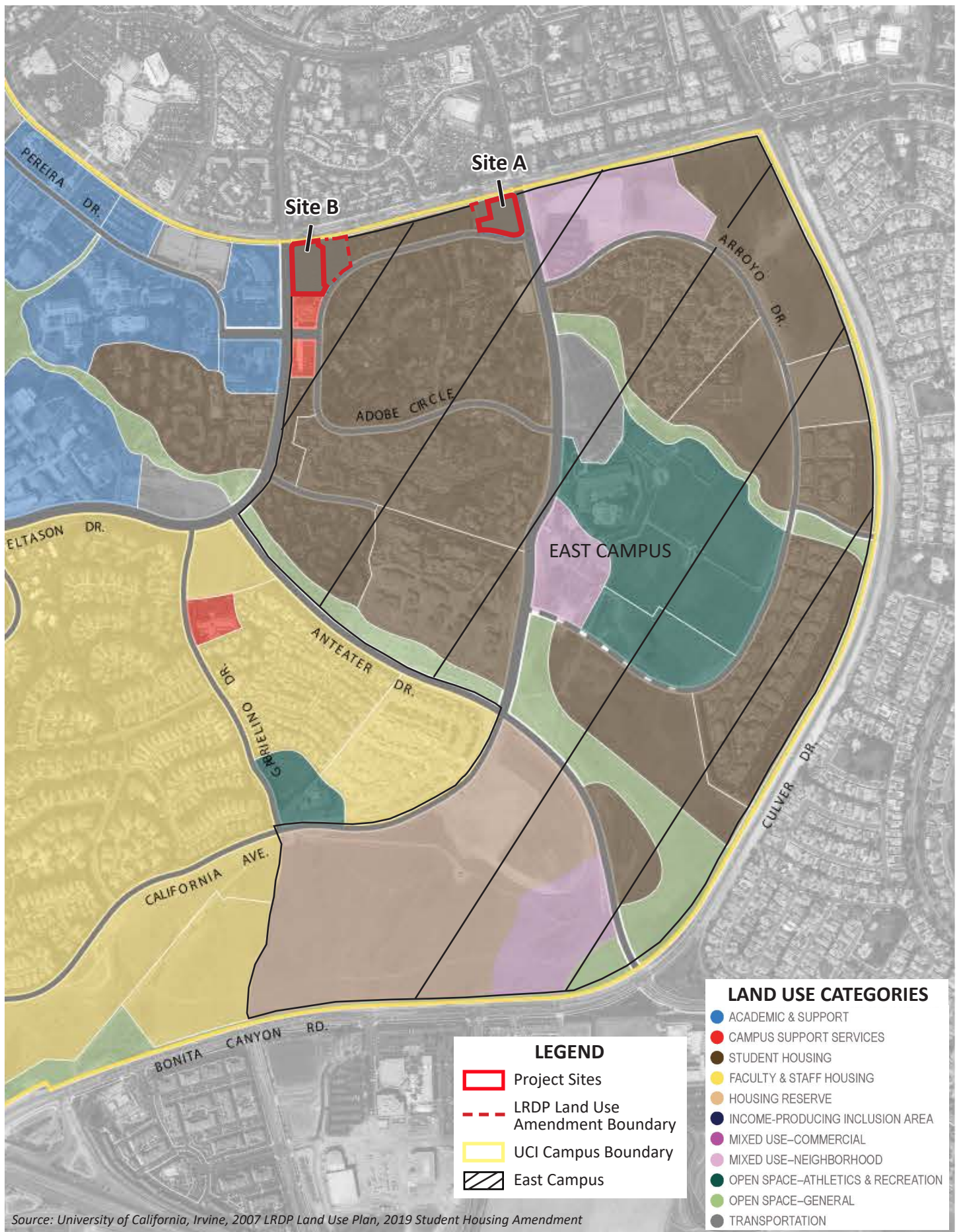


Figure 4: Proposed LRDP Land Use Plan Designations
East Campus Student Apartments Phase 5 Project



Not to scale

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Figure 3: Existing LRDP Land Use Plan Designations above and **Table 1: Existing Land Uses** below summarize the existing on-site and surrounding uses and 2007 LRDP Land Use Plan Designations. Both Sites are designated Academic and Support in the 2007 LRDP.

Table 1: Existing Land Uses

Direction	Existing Uses	2007 LRDP Land Use Designation
Proposed Project Site A		
Site A	Vacant office building and Parking Lot AHA	Academic & Support
North	Campus Drive bounds Site A to the north, commercial uses and surface parking are located north of Campus Drive	NA ¹
East	California Avenue bounds Site A to the east, Plaza Verde student housing is located east of California Avenue	Mixed Use-Neighborhood
South	Adobe Circle bounds Site A to the south, an Early Childhood Education Center and Verano student housing is located south of Adobe Circle	Student Housing
West	Puerta Del Sol student housing	Student Housing
Proposed Project Site B		
Site B	Parking Lot 1C	Academic & Support
North	Campus Drive bounds Site B to the north, multi-family residential uses are located north of Campus Drive	NA ¹
East	A Mitigation Site including an unnamed drainage and riparian habitat bounds Site B to the east. Puerta Del Sol student housing is located east of the Mitigation Site	Student Housing
South	Public Services Building	Campus Support Services
West	East Peltason Drive bounds Site B to the west, Education Building and Law Building are located west of East Peltason Drive	Academic & Support
Source: University of California, Irvine, 2007, 2007 UCI Long Range Development Plan, Available at https://planningandsustainability.uci.edu/physical/campus-lrnp.php		
1. Off Campus, not located within 2007 LRDP Boundary		

2.2 PROJECT CHARACTERISTICS

The Project would demolish the existing vacant office building and surface parking lot on Site A to construct one approximately 137,000 gross square-foot (gsf) student apartment building with up to 512 beds on the approximately 1.75-acre site. The Project would also demolish the existing surface parking lot on Site B to construct one approximately 155,000 gsf student apartment building with up to 553 beds on the approximately 1.5-acre site. In total, the Project would develop up to 1,100 new beds. Site B improvements would also include demolition and reconfiguration of the existing UCIPD parking area immediately north of PSB including a new access drive to East Peltason Drive. The proposed building height for both Site A and Site B is 7 stories, stepping down to 6 stories along the Campus Drive frontage. See **Figure 5: Conceptual Site Plan A**, **Figure 6: Conceptual Site Plan B**, **Figure 7: Site A Conceptual Rendering 1**, **Figure 8: Site A Conceptual Rendering 2**, **Figure 9: Site B Conceptual Rendering 1**, and **Figure 10: Site B Conceptual Rendering 2**.



Figure 5: Conceptual Site Plan A
East Campus Student Apartments Phase 5 Project



Not to scale

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Figure 6: Conceptual Site Plan B
East Campus Student Apartments Phase 5 Project



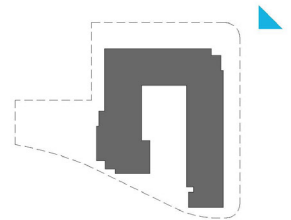
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Source: KTG Architecture & Planning

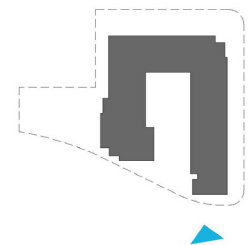
Figure 7: Site A Conceptual Rendering 1
East Campus Student Apartments Phase 5 Project

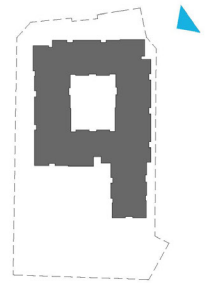




Source: KTG Architecture & Planning

Figure 8: Site A Conceptual Rendering 2
East Campus Student Apartments Phase 5 Project





Source: KTG Architecture & Planning

Figure 9: Site B Conceptual Rendering 1
East Campus Student Apartments Phase 5 Project



Source: KTG Architecture & Planning

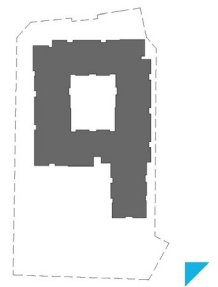


Figure 10: Site B Conceptual Rendering 2
East Campus Student Apartments Phase 5 Project

Both Sites would include a drop-off court, common areas throughout the apartment buildings, including study areas, furnished courtyards, bike storage, and laundry facilities. Site work and development would include clearing of the existing uses; site grading; connection to campus utility and drainage systems; construction of building(s), pathways, ramps, and sidewalks; installation of site lighting and landscape improvements; and construction of outdoor gathering spaces with wireless connectivity. The proposed buildings would have one primary entry lobby for each building. This lobby would be centrally located on the ground floor and lead to the building's amenities. In accordance with the architectural guidelines in the UCI Physical Design Framework, the design of the buildings would be responsive to the context of surrounding buildings. Location and massing of the buildings have taken into consideration existing adjacent residences.

As shown in **Table 2: Conceptual Unit Type**, the proposed student apartment buildings would consist of 1, 2, and 4 bedroom apartment units with common kitchen and living space. The unit breakdowns by type would be finalized during the design phase.

Table 2: Conceptual Unit Type Summary

Unit Name	Unit Type ¹	Approximate Unit Count	Unit Type Square Footage
Proposed Project Site A			
Unit A.1	0 bedroom, 1 bed/1 bath	20	519 sf
Unit B	2 bedroom, 4 bed/2 bath	32	807 sf
Unit B (Mobility)	2 bedroom, 4 bed/2 bath	13	830 sf
Unit B.1	0 bedroom, 2 bed/1 bath	1	550 sf
Unit C	4 bedroom, 4 bed/2 bath	64	1,131 sf
Unit C (Mobility)	4 bedroom, 4 bed/2 bath	13	1,182 sf
Unit C.1	0 bedroom, 2 bed/1 bath	1	764 sf
Site A Total		144	-
Proposed Project Site B			
Unit A.1	0 bedroom, 1 bed/1 bath	33	519 sf
Unit B	2 bedroom, 4 bed/2 bath	11	807 sf
Unit B (Mobility)	2 bedroom, 4 bed/2 bath	20	830 sf
Unit B.1	0 bedroom, 2 bed/1 bath	2	550 sf
Unit C	4 bedroom, 4 bed /2 bath	98	1,131 sf
Site B Total		164	-

Site Access

Vehicle access to both Project sites would be via Adobe Circle. Site A would include two full access driveways on Adobe Circle. The existing driveway further west on Adobe Circle would remain in the same location, the second driveway would be shifted approximately 100 feet west compared to its existing location along Adobe Circle. Site B would include one full access driveway located in the same location on Adobe Circle and one new full access driveway off East Peltason Drive, exclusively providing access to the gated PSB surface parking lot for UCIPD use. All elements of vehicle access and roadway improvements, including size, configuration, vertical and horizontal alignment, lane widths, striping, signage, lighting, and traffic control measures (i.e., stop signs and speed humps) would be designed and constructed in compliance with UCI Campus Design Standards. Additionally, Project driveways and internal drive aisles

would be designed to ensure emergency vehicle and fire department access in compliance with Designated Campus Fire Marshal (DCFM) and Orange County Fire Authority (OCFA) requirements and standards. The aesthetics of the vehicle access points would be integrated with the pedestrian pathways, landscape design, and potential storm water quality treatment areas.

Site A and Site B would both include a vehicle drop-off court for access to the main entrance and lobby. Site A would also include twelve (12) convenience parking stalls for short-term activities in an ADA compliant parking lot. Site B would also include reconfiguration of portions of existing Lot 1C and the existing Public Services Building parking area to provide a secured surface parking lot accessed via a gated driveway from East Peltason Drive. As noted above, the secured parking lot would exclusively serve the Public Services Building, specifically for UCIPD use. No on-site long-term student resident vehicle parking would be provided. Student residents on both sites that bring personal vehicles on campus would have access to existing parking facilities in the East Campus through purchasing a parking permit.

The Project includes pedestrian access around the new structures. Pedestrian sidewalks and pathways would be landscaped and connect to existing pedestrian facilities. Site A would construct a new sidewalk on Adobe Circle along the Project frontage that would provide pedestrian connection from California Ave to the existing sidewalk west of Site A. Crosswalk and sidewalk improvements at East Peltason Drive and Periera Drive intersection would be included to enhance pedestrian access to the Academic Core.

Landscaping

The Project includes new ornamental landscaping throughout both Project sites to provide a visual buffer to surrounding uses and to provide shade. Landscape buffers would be provided around the perimeters of the Sites, and would be focused around the parking lot areas, driveway entries, pedestrian paths, and recreational courtyard areas. The student apartment building on Site A would be setback from Campus Drive by approximately 42 feet, from California Avenue by approximately 35 feet, and from Adobe Circle by approximately 25 feet. The student apartment building on Site B would be setback from Campus Drive by approximately 42 feet, from E Peltason Drive by approximately 25 feet, and from Adobe Circle by approximately 50 feet.

The plant palette would consist of low-water, low-maintenance and long-lived plant materials that thrive in the Southern California landscape in compliance with UCI's Green and Gold Plan². The plant palette would also consist of a native, adaptive, and Mediterranean mix that adapts to the cool wet winters and the hot dry summers that are consistent with the temperate region the campus is located in and would be low maintenance for campus operations.

Lighting

Site lighting would be used to provide adequate lighting for circulation, safety, and security. Night lighting would be provided seven days a week for the surface parking lots. All Project site entries, exits, parking areas, loading areas, trash enclosures, outdoor areas, and pedestrian pathways would include dusk to dawn lighting for security purposes.

² UC Irvine, 2018, *Green and Gold Plant List*, <https://planningandsustainability.uci.edu/Green-and-Gold-Plants-6-13-18.docx.pdf>, Accessed April 2026.

Sustainability

The new student housing buildings would be designed to maximize opportunities to inform and shape behavior towards UCI's sustainability goals. In line with the University of California's Policy on Sustainable Practices, the Project would be designed to achieve Leadership in Energy and Environmental Design (LEED) Gold certification. Additionally, the Project would be designed to outperform California Building Code (CBC) Title 24 standards by 20 percent, striving to outperform the standards by 30 percent where possible, and optimize the energy efficiency of systems not addressed by the CBC energy-efficiency standards. Further, the Project would only use electric utilities and would not involve the use of natural gas. The electricity consumed during Project operation would be carbon free as it is anticipated to be provided by the UC Clean Power Program.

Infrastructure and Off-Site Improvements

A finalized utility plan for electrical; domestic, sanitary sewer, fire, and irrigation water; and telecommunication would be completed prior to construction. If any existing connections conflict with the Project design, alternative and/or temporary utilities would be provided to all adjacent structures during relocation.

Roadway Improvements

The Project would include construction of a new sidewalk on Project Site A frontage along Adobe Circle, which would provide connectivity to the existing sidewalk facilities. Additional improvements include connection to existing curb & gutter and pedestrian pathways to existing sidewalks along both Project sites perimeter. Crosswalk and sidewalk improvements at the East Peltason Drive and Periera Drive intersection would be included to enhance pedestrian access to the Academic Core. Site A would shift the eastern driveway approximately 100 feet west compared to its existing location along Adobe Circle. Site B would include one new full-access driveway off East Peltason Drive.

Water Service

Proposed Project Site A would connect to an existing UCI owned 12-inch water main in Adobe Circle for potable water, fire flow water, and irrigation water. Site B would connect to existing 12-inch water mains in Adobe Circle and East Peltason Drive for potable water and fire flow water. Additionally, Site B would connect to an existing 6-inch reclaimed water main in Peltason Drive for irrigation water.

Drainage and Water Quality Treatment

The Project would include a new on-site storm drain system. Low impact development (LID) features in compliance with UCI's MS4 permit would be determined during the final design phase. Additionally, existing hydrology patterns on the site would be maintained to the extent practical as determined during the project's final design stage in compliance with the Regional Water Quality Control Board – Santa Ana Region (RWQCB) standards and the Storm Water Pollution Prevent Plan (SWPPP).

Site A discharge would ultimately drain to Campus Drive, eventually entering a catch basin east of the intersection of Campus Drive and E Peltason Drive, and into a 51-inch reinforced concrete pipe (RCP) storm drain. Site drainage could also be split to drain south to Adobe Circle, which would eventually enter a catch basin in Adobe Circle and flow into an approximately 7'x10' box pipe which cuts through the westerly neighboring site and runs to the north.

Site B discharge would ultimately drain to an earthen open channel on the east side of the site, from there water would flow to a relocated 42-inch RCP storm drain, which would connect into an existing UCI owned 48-inch RCP storm drain adjacent to Campus Drive.

Wastewater Collection and Disposal

Proposed Project Site A would connect to the existing UCI owned 15-inch sewer main located in Adobe Circle, and Site B would connect to a UCI owned 18-inch sewer main that would be relocated in Peltason Drive.

Dry Utilities and Service

Southern California Edison would provide electricity service and AT&T and/or Cox Communication would provide telecommunication services to both Project sites. The Project would connect to the existing dry utility systems on Adobe Circle.

Population and Employment

Project implementation would result in the construction of up to 1,100 beds, which would be provided for UCI students. It is assumed that the up to 1,100 students would be housed each year. In order to operate the student apartment buildings, it is anticipated each Site would require approximately 10 staff. Therefore, this analysis conservatively assumes 20 staff for the proposed Project.

Project Construction

Project construction is anticipated to begin in the fourth quarter of 2026 and would occur over 22 months in one phase with anticipated occupancy in 2028. To ensure a conservative estimate of Project impacts under CEQA, it is assumed both Sites would be constructed at the same time.

Grading for the proposed improvements would require cut and fill, the Project is anticipated to require approximately 1,420 CY of imported soil for Site A and approximately 3,900 CY of imported soil for Site B.

2.3 DISCRETIONARY APPROVALS

- **University of California – Lead Agency.** As a public agency principally responsible for approving or carrying out the proposed Project, the University of California is the Lead Agency under CEQA and is responsible for reviewing and certifying the adequacy of the IS/MND and approving the Project and LRDP Amendment #5. The Board of Regents of the University of California (The Regents) will consider design and CEQA approval of the proposed Project in July 2026.
- **Santa Ana Regional Water Quality Control Board (Santa Ana RWQCB) – Responsible Agency.** National Pollutant Discharge Elimination System (NPDES) Construction General Permit.

3.0 INITIAL STUDY CHECKLIST

NOTE: The following is a sample form that may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

1. Project title:

East Campus Student Apartments Phase 5 Project

2. Lead agency name and address:

University of California
Campus Planning & Sustainability
455 Aldrich Hall
Irvine, CA 92697

3. Contact person and phone number:

Lindsey Hashimoto, Principal Environmental Planner
(949) 824-8692

4. Project location:

The Project would be located in the East Campus of University of California Irvine. The Project encompasses two sites, Site A is approximately 1.75 acres, located at the southwest corner of the Campus Drive and California Avenue intersection and Site B is approximately 1.5 acres, located at the southeastern corner of the Campus Drive and E Peltason Drive intersection.

5. Project sponsor's name and address:

University of California, Irvine
Campus Planning & Sustainability
455 Aldrich Hall
Irvine, CA 92697

6. Land use designation:

Project Site A and Site B are designated Academic & Support in UCI's 2007 LRDP. The Project would require LRDP Amendment #5 to change the land use designation on both sites to Student Housing.

7. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

Each Project site would demolish the existing uses on-site and construction one multi-story student apartment building capable of supporting up to 1,100 beds across the two sites. Additionally, UCI proposes to amend the 2007 LRDP land use designation to Student Housing for both proposed Project sites.

8. Surrounding land uses and setting: Briefly describe the project's surroundings:

Both Project sites are bordered by Campus Drive to the north and Adobe Circle to the south. Surrounding land uses are primarily student housing and academic and support buildings including UCI's Public Services Building. See *Section 2.1, Project Location and Environmental Setting* for additional information.

9. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

Santa Ana Regional Water Quality Control Board

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

In compliance with Assembly Bill (AB) 52 and Senate Bill (SB) 18, UCI distributed letters on March 4, 2025, notifying Native American tribal representatives of the opportunity to consult with UCI regarding the proposed Project. UCI received one request from Gabrieleno Band of Mission Indians Kizh Nation for formal consultation.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code §21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code §5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code §21082.3(c) contains provisions specific to confidentiality.

4.0 EVALUATION OF ENVIRONMENTAL IMPACTS

The environmental analysis in this section follows the Initial Study Checklist recommended by the CEQA Guidelines Appendix G and used by UCI in its environmental review process. For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The University has defined the following significance determinations as column headings in the Initial Study Checklist as follows:

- **“Potentially Significant Impact”** is appropriate if there is substantial evidence that the project’s effect may be significant because the 2007 LRDP’s effect was not addressed in the LRDP EIR or the 2007 LRDP’s effect was analyzed but is now substantially more severe as a result of the Project. If there are one or more “Potentially Significant Impacts,” an EIR will be prepared.
- **“Project Impact Adequately Addressed in LRDP EIR”** applies where the potential impacts of the Project were adequately addressed in the LRDP EIR and Mitigation Measures identified in the LRDP EIR would mitigate any impacts of the proposed Project to less than significant. All applicable LRDP EIR Mitigation Measures are incorporated into the Project as proposed.
- **“Less Than Significant with Project-level Mitigation Incorporated”** applies where the incorporation of project-specific Mitigation Measures will reduce a potential impact to a “Less Than Significant Impact.” All Project level Mitigation Measures must be described, including a brief explanation of how the measures reduce the effect to a less than significant level.
- **“Less Than Significant Impact”** applies where the Project will not result in any significant effects. The effects may or may not have been discussed in the LRDP EIR. The Project impact is less than significant without the incorporation of LRDP EIR or project-level mitigation.
- **“No Impact”** applies where a Project would not result in any impact or the category does not apply. Information is provided to show that the impact does not apply to the project.

Environmental Factors Potentially Affected by the Project

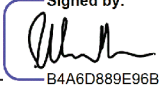
The environmental factors checked below would be potentially affected by this project, involving impacts identified as “Less Than Significant with Project-level Mitigation Incorporated” or “Project Impact Adequately Addressed in LRDP EIR” as indicated by the checklist on the following pages. No environmental factors were identified as “Potentially Significant Impact.”

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

Lead Agency Determination

On the basis of this initial evaluation:

I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because environmental impacts have been adequately evaluated in the LRDP EIR and do not require further analysis, there are no new effects and there are no environmental impacts that are substantially more severe as a result of the Project than were analyzed under the LRDP EIR and/or revisions in the Project or project specific mitigation measures have been made by or agreed to by the Project proponent to reduce impacts to below a level of significance. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed Project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed Project MAY have a potentially significant or a potentially significant unless mitigated impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by Mitigation Measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or Mitigation Measures that are imposed upon the proposed project, nothing further is required.	

Signed by:

 B4A6D889E96B42D...
 Signature

4/21/2026
 Date

4.1 AESTHETICS

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-Level Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code §21099, would the Project:					
a. Have a substantial adverse effect on a scenic vista?					X
b. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?					X
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				X	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X			

Discussion

Aesthetic issues are discussed in Section 4.1 of the LRDP EIR.

4.1a Have a substantial adverse effect on a scenic vista?

No Impact. Scenic views or vistas are generally defined as panoramic public views to various natural features, including large water bodies, striking or unusual natural terrain, or unique urban or historic features. Public access to these views may be from park lands, privately and publicly owned sites, and public rights-of-way. The 2007 LRDP identified no scenic vistas located on or in the vicinity of the UCI Campus. Therefore, the LRDP EIR concluded that impacts to a scenic vista would be less than significant. The proposed Project would be located adjacent to compatible, similar uses in terms of height and design and would be constructed in compliance with UCI's Physical Design Framework to ensure visual compatibility with existing on-campus uses and adjacent residential and commercial uses located off-campus. As noted above, there are no scenic vistas identified on or in the vicinity of the UCI Campus. Therefore, Project implementation would not have an adverse effect on a scenic vista. No impact would occur.

4.1b Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The Initial Study for the 2007 LRDP indicated that development on the UCI Campus would not substantially damage scenic resources such as trees, rock outcroppings, and historic buildings within a state scenic highway; therefore, it is considered not to be significant, and additional analysis was not required in the LRDP EIR.

The California Scenic Highway Mapping System indicates that there are no Officially Designated State Scenic Highways located within proximity to the Project sites. The closest Eligible State Scenic Highway is Route 1 (Pacific Coast Highway) which is located approximately 3.7 miles southwest of the Project sites and is not visible from the campus. Therefore, development of the proposed Project would not affect scenic resources within a state scenic highway and no impact would occur.

4.1c In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. Land use planning for UCI is established by the 2007 LRDP. The University is constitutionally exempt from local land use laws and regulations under Article IX, Section 9 of the California Constitution, which includes exemption from all city and county general plans, as well as community plans and zoning regulations.

The 2007 LRDP EIR evaluated potential impacts to visual character and views from surrounding communities associated with development of the East Campus area, including student housing. The EIR concluded that visual impacts would be less than significant because of surrounding existing development and landscaped buffers which would limit views of future development from nearby residential areas. As a result, the viewshed over the East Campus was not considered a visually sensitive area, and development under the 2007 LRDP was found to have a less than significant impact to visual quality or character.

The Project is located in an urbanized area, with both sites planned for development. Compatible with existing adjacent uses, each Site would include the construction of one multi-story student apartment building up to 7 stories in height, stepping down to 6 stories along the Campus Drive frontage. Site A would have a maximum height of approximately 77 feet, inclusive of the parapet designed to screen rooftop equipment from public views. Site B would have a maximum height of approximately 73 feet, also measured to the top of the parapet. The Project would be developed consistent with UCI Campus Design Standards and UCI Physical Design Framework, including consideration of location and massing of the buildings and adjacent uses. Both Sites would include landscape buffers areas along the site perimeter, building frontages, and PSB parking areas. The landscape buffers would separate the buildings, drop-off court, and PSB parking areas from the sidewalks and streets thereby screening public views. Additionally, the proposed student housing buildings would be designed to be visually compatible with the surrounding land uses. Therefore, the proposed Project would retain the visual character of the campus and surrounding uses and would not conflict with regulations governing scenic quality. Impacts would be less than significant.

4.1d *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Impact Adequately Addressed in LRDP EIR. There are two primary sources of light; light emanating from building interiors that pass through windows and light from exterior sources, such as street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting. As identified in the LRDP EIR, new development throughout the campus could produce additional buildings which could significantly increase light and glare impacts. LRDP EIR Mitigation Measure Aes-2A, would require non-reflective exteriors and glass and LRDP EIR Mitigation Measure Aes-2B, would require an exterior lighting plan. The LRDP EIR concluded that impacts related to light and glare would be reduced to less than significant levels with mitigation incorporated.

Both Project sites are currently developed and produce sources of light and glare. Site B has existing light sources from light poles, security lighting, and landscape lighting for the existing surface parking lot. Site A has similar lighting from the existing parking lot, as well as light from wayfinding lights and building illumination. The Project would emit light from building interiors and include outdoor lighting to provide safe levels of illumination for pedestrians, bicyclists, and motorists, such as exterior building mounted fixtures, landscape lighting, wayfinding and security lighting, and light poles for surface parking lots. Although both Project sites have been previously developed, including Site A with an existing vacant office building, due to the Project's higher density of development than the existing conditions, the Project could potentially result in a new source of light or glare. Therefore, the Project would implement LRDP EIR Mitigation Measure Aes-2A, would require design features to minimize glare, including non-reflective exterior surfaces and low-reflectance glass. The Project would also implement LRDP EIR Mitigation Measure Aes-2B, which would require the preparation of an exterior lighting plan in compliance with Campus Design Standards, including standardized cutoff lighting fixtures and shielding to minimize light pollution. Further, Project is located in an urban environment, surrounded by development with existing sources of light and glare. Therefore, with implementation of LRDP EIR Mitigation Measures Aes-2A and Aes-2B, the Project would not result in a new source of substantial light or glare that could adversely affect day or nighttime views in the area. Impacts would be less than significant.

LRDP EIR Mitigation Measures

Aes-2A: Prior to Project design approval for future projects that implement the 2007 LRDP, UCI shall ensure that the projects include design features to minimize glare impacts. These design features shall include use of non-reflective exterior surfaces and low-reflectance glass (e.g., double or triple glazing glass, high technology glass, low-E glass, or equivalent materials with low reflectivity) on all Project surfaces that could produce glare.

Aes-2B: Prior to approval of construction documents for future projects that implement the 2007 LRDP, UCI shall approve an exterior lighting plan for each project. In accordance with UCI's *Campus Standards and Design Criteria* for outdoor lighting, the plan shall include, but not be limited to, the following design features:

- i. Full-cutoff lighting fixtures to direct lighting to the specific location intended for illumination (e.g., roads, walkways, or recreation fields) and to minimize stray light spillover into adjacent residential areas, sensitive biological habitat, and other light sensitive receptors;

- ii. Appropriate intensity of lighting to provide campus safety and security while minimizing light pollution and energy consumption; and
- iii. Shielding direct lighting within parking areas, parking structures, or roadways away from adjacent residential areas, sensitive biological habitat, and other light-sensitive receptors through site configuration, grading, lighting design, or barriers such as earthen berms, walls, or landscaping.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Issues	Potentially Significant Impact	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-Level Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Dept. 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?					X
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?					X
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?					X
d. Result in the loss of forest land or conversion of forest land to non-forest use?					X
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?					X

Discussion

According to the LRDP EIR Chapter 5.0: Other CEQA Considerations, implementation of the 2007 LRDP did not have the potential to result in significant impacts related to Agricultural Resources and no additional analysis was required or included in the LRDP EIR.

4.2a 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. According to the California Department of Conservation Farmland Mapping and Monitoring Program, the UCI campus is classified as a mix of "Other Land" and "Urban and Built-up Land." LRDP EIR Section 5.0 concluded that no impacts to agricultural resources would occur. The Project sites are designated as "Urban and Built-up Land." Further, there is no land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance adjacent to the Project sites. Therefore, Project implementation would not result in the conversion of Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. No impact would occur.

4.2b Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. According to the LRDP EIR, the University of California is constitutionally exempt from local zoning and land use plan/element requirements, and no portion of the campus is under a Williamson Act contract. Due to the specific tax-exempt status of the University of California, land owned by the University of California is not subject to Williamson Act land use/tax contracts. Accordingly, development of the 2007 LRDP would not result in a conflict with existing zoning or with Williamson Act contracts. The LRDP EIR concluded that no impact would occur.

The proposed Project would not conflict with existing zoning for agricultural use or a Williamson Act contract and no impact would occur.

4.2c Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?

4.2d Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. This threshold was added in a subsequent CEQA Guidelines update. As such, this threshold was not included in the LRDP Initial Study or EIR. The Project site A and B are both designated Academic & Support. There are no forest or timberland resources or uses on or in the vicinity of the Project sites. The proposed Project would not conflict with existing zoning for forest land, timberland, or timberland production. Therefore, no impact would occur and no mitigation is required.

4.2e 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?

No Impact. As noted above, there is no land designated as farmland or forest land within or in the vicinity of the Project sites. Therefore, the proposed Project would not involve changes in the existing environment which would result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No impacts would occur in this regard.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.3 AIR QUALITY

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?		X			
c) Expose sensitive receptors to substantial pollutant concentrations?				X	
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?				X	

Discussion

Air quality issues are discussed in Section 4.2 of the LRDP EIR. A Project-specific Air Quality Assessment was conducted by Kimley-Horn and Associates and incorporated into the analysis below. See **Appendix A: Air Quality, Greenhouse Gas, and Energy Modeling Data** of this IS/MND for modeling output data used for the analysis.

Regulatory Setting

Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the United States Environmental Protection Agency (U.S. EPA) developed the primary and secondary National Ambient Air Quality Standards (NAAQS) for the criteria air pollutants including ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter less than or equal to 10 microns in diameter (PM₁₀), particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}), and lead. Depending on whether the standards are met or exceeded, the local air basin is classified as in “attainment” or “nonattainment.” Some areas are unclassified, which means no monitoring data is available. Unclassified areas are considered to be in attainment. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires that each state prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQS within federally imposed deadlines. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. The U.S. EPA has

designated enforcement of air pollution control regulations to the individual states. Applicable federal and state standards are summarized in **Table 3: State and Federal Ambient Air Quality Standards**.

California Air Resources Board

The California Air Resources Board (CARB) administers California's air quality policy. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in **Table 3**, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide (H₂S), and sulfates.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting the NAAQS. Like the U.S. EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a CAAQS was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of the CAAQS, and are not used as a basis for designating areas as nonattainment. The applicable CAAQS are summarized in **Table 3**.

Table 3: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹	National Standards ²	
			Primary	Secondary
O ₃ ³	1 Hour	0.09 ppm (180 µg/m ³)	–	–
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	Annual Average	20 µg/m ³	–	–
PM _{2.5} ⁴	24 Hour	–	35 µg/m ³	Same as Primary
	Annual Average	12 µg/m ³	9.0 µg/m ³	15.0 µg/m ³
CO	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	–
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	–
NO ₂ ⁵	1 Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	–
	Annual Average	0.030 ppm (57 µg/m ³)	53 ppb (100 µg/m ³)	Same as Primary
SO ₂ ⁶	1 Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m ³)
	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	–
	Annual Average	–	0.030 ppm (80 µg/m ³)	–
Lead (Pb) ^{7,8}	30-day Avg.	1.5 µg/m ³	–	–
	Calendar Quarter	–	1.5 µg/m ³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m ³	

Pollutant	Averaging Time	California Standards ¹	National Standards ²	
			Primary	Secondary
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide (H ₂ S)	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride ⁷	24 Hour	0.01 ppm (26 µg/m ³)		
ppm = parts per million; ppb = parts per billion; µg/m ³ = micrograms per cubic meter; mg/m ³ = milligrams per cubic meter; – = no information available.				
1. CAAQS for O₃, CO (except Lake Tahoe), SO₂ (1- and 24-hour), NO₂, suspended particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. 2. NAAQS shown are the "primary standards" designed to protect public health with an adequate margin of safety. NAAQS (other than for O₃, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest daily 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. 3. On October 1, 2015, the national 8-hour O₃ primary and secondary standards were lowered from 0.075 to 0.070 ppm. The national 1-hour O₃ standard was revoked by the U.S. EPA on June 15, 2005. 4. On February 7, 2024, the national annual PM_{2.5} primary standard was lowered from 12.0 µg/m³ to 9.0 µg/m³. The existing 24-hour PM_{2.5} NAAQS (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15.0 µg/m³. The existing 24-hour PM₁₀ NAAQS (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary NAAQS is the annual mean, averaged over 3 years. 5. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). CAAQS are in units of parts per million (ppm). To directly compare the national 1-hour standard to the CAAQS the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm. 6. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ NAAQS (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. 7. CARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure below which there are no adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants. 8.The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.				
Sources: California Air Resources Board, 2024, <i>Ambient Air Quality Standards</i> , :/ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf . Accessed January 2025; United States Environmental Protection Agency, <i>National Ambient Air Quality Standards (NAAQS) for PM</i> , https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm .Accessed January 2025.				

South Coast Air Quality Management District (SCAQMD)

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino Counties. The agency's primary responsibility is ensuring that NAAQS and CAAQS are attained and maintained in the South Coast Air Basin (SCAB). The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce

motor vehicle emissions, conducting public education campaigns, and many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The SCAQMD is also the lead agency in charge of developing the AQMP, with input from the Southern California Association of Governments (SCAG) and CARB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. SCAG has the primary responsibility for providing future growth projections and the development and implementation of transportation control measures. CARB, in coordination with federal agencies, provides the control element for mobile sources.

The 2016 AQMP was adopted by the SCAQMD Governing Board on March 3, 2017. The purpose of the AQMP is to set forth a comprehensive and integrated program that would lead the SCAB into compliance with the federal 24-hour PM_{2.5} air quality standard, and to update the SCAQMD's commitments towards meeting the federal 8-hour ozone standards. The AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2016 *Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal) and updated emission inventory methodologies for various source categories.

On October 1, 2015, the U.S. EPA strengthened the NAAQS for ground-level O₃. The 2022 AQMP, adopted by the SCAQMD Governing Board on December 2, 2022, was developed to address the requirements for meeting the 2015 8-hour O₃ standard. The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NO_x technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other FCAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2020 Connect SoCal and updated emission inventory methodologies for various source categories.

The SCAQMD has published the *CEQA Air Quality Handbook* (approved by the SCAQMD Governing Board in 1993 and augmented with guidance for Local Significance Thresholds [LST] in 2008). The SCAQMD guidance helps local government agencies and consultants develop environmental documents required by California Environmental Quality Act (CEQA) and identifies thresholds of significance for criteria pollutants for both construction and operation (see discussion of thresholds below). With the help of the *CEQA Air Quality Handbook* and associated guidance, local land use planners and consultants can analyze and document how existing and proposed projects affect air quality, in order to meet the CEQA review process requirements. The SCAQMD periodically provides supplemental guidance and updates to the handbook on their website.

The state and federal attainment status designations for the SCAB are summarized in **Table 4: South Coast Air Basin Attainment Status**. The SCAB is currently designated as a nonattainment area with respect to the state O₃, PM₁₀, and PM_{2.5} standards, as well as the national 8-hour O₃ and PM_{2.5} standards. The SCAB is designated as attainment or unclassified for the remaining NAAQS and CAAQS.

Table 4: South Coast Air Basin Attainment Status

Pollutant	State	Federal
Ozone (O ₃) (1 Hour Standard)	Nonattainment	Nonattainment (Extreme)
Ozone (O ₃) (8 Hour Standard)	Nonattainment	Nonattainment (Extreme)
Particulate Matter (PM _{2.5}) (24 Hour Standard)	-	Nonattainment (Serious)
Particulate Matter (PM _{2.5}) (Annual Standard)	Nonattainment	Nonattainment (Serious)
Particulate Matter (PM ₁₀) (24 Hour Standard)	Nonattainment	Attainment (Maintenance)
Particulate Matter (PM ₁₀) (Annual Standard)	Nonattainment	—
Carbon Monoxide (CO) (1 Hour Standard)	Attainment	Attainment (Maintenance)
Carbon Monoxide (CO) (8 Hour Standard)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO ₂) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO ₂) (Annual Standard)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO ₂) (1 Hour Standard)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO ₂) (24 Hour Standard)	Attainment	Unclassifiable/Attainment
Lead (Pb) (30 Day Standard)	-	-
Lead (Pb) (3 Month Standard)	Attainment	Nonattainment (Partial)
Sulfates (SO ₄₋₂) (24 Hour Standard)	Attainment	—
Hydrogen Sulfide (H ₂ S) (1 Hour Standard)	Unclassified	—
Source: South Coast Air Quality Management District. (2022) <i>2022 Air Quality Management Plan</i> .; United States Environmental Protection Agency, (2022). <i>Nonattainment Areas for Criteria Pollutants (Green Book)</i> .		

The following is a list of SCAQMD rules that are required of construction activities associated with the proposed Project:

- **Rule 401 (Visible Emissions)** – A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.
- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to

odors emanating from agricultural operations necessary for the growing of crops or the raising of fowls or animals.

- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This rule is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM10 suppression Best Available Control Measures are summarized below.
 - a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
 - b) All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
 - c) All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
 - d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
 - e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the work day to remove soil tracked onto the paved surface.
- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.
- **Rule 1143 (Paint Thinners and Solvents)** – This rule governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.
- **Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities)** – This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

University of California

Environmental Health and Safety Department

UCI's Environmental Health and Safety (EHS) Department is responsible for implementing the UCI Clean Air Program which facilitates compliance with air quality laws and regulations. In addition to the permitting programs required by California law and SCAQMD rules, UCI is required to implement a federal operating permit program that meets U.S. EPA regulations adopted pursuant to Title V of the FCAA

Amendments. Title V Program activities include assisting with SCAQMD Permit to Operate administration, monitoring, record keeping, reporting activities, and developing regulatory programs and informational guidelines to ensure the campus remains in compliance with state and federal regulations.

Several different departments at UCI are involved with this program. Academic department chairs and directors are responsible for reporting new air emission sources to EHS and maintaining records. The Facilities Management and the Design and Construction Services departments provide building and renovation plans to EHS for review and report new air emission sources to EHS. The Parking and Transportation Services department, while not directly involved with the Clean Air Program, reduces air emissions by implementing the Alternative Transportation Program to reduce vehicular traffic and associated emissions.

Environmental Setting

Climate and Topography

The CARB divides the state into 15 air basins that share similar meteorological and topographical features. The proposed Project is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, as well as all of Orange County. The SCAB is on a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the southwest and high mountains forming the remainder of the perimeter³. The SCAB's air quality is determined by natural factors such as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.

The SCAB is part of a semi-permanent high-pressure zone in the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. This usually mild weather pattern is occasionally interrupted by periods of extreme heat, winter storms, and Santa Ana winds. The annual average temperature throughout the 6,645-square-mile SCAB ranges from low 60 to high 80 degrees Fahrenheit with little variance. With more oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. Contrasting the steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rainfall occurs between the months of November and April. Summer rainfall is reduced to widely scattered thundershowers near the coast, with slightly heavier activity in the east and over the mountains.

Although the SCAB has a semiarid climate, the air closer to the Earth's surface is typically moist because of the presence of a shallow marine layer. Except for occasional periods when dry, continental air is brought into the SCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog are frequent and low clouds known as high fog are characteristic climatic features, especially along the coast. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SCAB.

Wind patterns across the SCAB are characterized by westerly or southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Wind speed is typically higher during the dry summer months than during the rainy winter. Between periods of wind, air stagnation may occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During winter and fall, surface high-pressure systems over the SCAB, combined with other

³ South Coast Air Quality Management District, 1993, *CEQA Air Quality Handbook*.

meteorological conditions, result in very strong, downslope Santa Ana winds. These winds normally continue for a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. The SCAB's air quality generally ranges from fair to poor and is like air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

In addition to the characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which air pollutants are mixed. These inversions are the marine inversion and the radiation inversion. The height of the base of the inversion at any given time is called the "mixing height." The combination of winds and inversions is a critical determinant leading to highly degraded air quality for the SCAB in the summer and generally good air quality in the winter.

Air Pollutants of Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_x), sulfur dioxide (SO₂), coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead are primary air pollutants. Of these, CO, NO_x, SO₂, PM₁₀, and PM_{2.5} are criteria pollutants. ROG and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone (O₃) is formed by a chemical reaction between ROG and NO_x in the presence of sunlight. O₃ and nitrogen dioxide (NO₂) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in **Table 5: Air Contaminants and Associated Public Health Concerns**.

Table 5: Air Contaminants and Associated Public Health Concerns

Pollutant ¹	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM ₁₀ and PM _{2.5})	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O ₃)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC) ¹ and nitrogen oxides (NO _x) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO ₂)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron

Pollutant ¹	Major Man-Made Sources	Human Health Effects
	manufacturing, metal processing facilities, locomotives, and ships.	and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.
1. Volatile Organic Compounds (VOCs or ROGs) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).		
Source: California Air Resources Board, <i>Common Air Pollutants</i> , https://ww2.arb.ca.gov/resources/common-air-pollutants . Accessed March 2025.		

Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the Project site are documented by measurements made by the SCAQMD, the SCAB's air pollution regulatory agency that maintains air quality monitoring stations, which process ambient air quality measurements.

O₃, NO₂, PM₁₀, and PM_{2.5} are pollutants of concern in the SCAB. The closest air monitoring station to the proposed Project site that monitors ambient concentrations for O₃, CO, PM₁₀, and PM_{2.5} is the Mission Viejo – 26081 Via Pera Monitoring Station (located approximately 9.2 miles east of the Project). The closest monitoring station that measures NO₂ is the Anaheim-Pampas Lane Monitoring Station (located approximately 13.9 miles northwest of the Project). Local air quality data from 2021 to 2023 are provided

in **Table 6: Ambient Air Quality Data**. Table 6 lists the monitored maximum concentrations and number of exceedances of NAAQS or CAAQS for each year.

Table 6: Ambient Air Quality Data

Pollutant	2021	2022	2023
Ozone (O₃)¹			
1-hour Maximum Concentration (ppm)	0.105	0.110	-
8-hour Maximum Concentration (ppm)	0.082	0.089	-
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour (>0.09 ppm)	2	1	-
NAAQS 8-hour (>0.070 ppm)	8	5	-
Carbon Monoxide (CO)¹			
1-hour Maximum Concentration (ppm)	1.01	1.19	-
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>35 ppm)	-	-	-
CAAQS 1-hour (>20 ppm)	-	-	-
Nitrogen Dioxide (NO₂)²			
1-hour Maximum Concentration (ppm)	67.1	53.0	50.9
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter Less Than 10 Microns (PM₁₀)¹			
National 24-hour Maximum Concentration	35.2	31.0	-
State 24-hour Maximum Concentration	34.6	30.4	-
State Annual Average Concentration (20 µg/m ³)	15.8	-	-
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>150 µg/m ³)	0	0	0
CAAQS 24-hour (>50 µg/m ³)	0	0	0
Particulate Matter Less Than 2.5 Microns (PM_{2.5})¹			
National 24-hour Maximum Concentration	32.6	22.6	-
State 24-hour Maximum Concentration	32.6	22.6	-
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>35 µg/m ³)	0	0	0
NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m ³ = micrograms per cubic meter; - = not measured 1. Measurements at Mission Viejo – 26081 Via Pera Monitoring Station, 26081 Via Pera, Mission Viejo, CA 92691 (CARB# 30002). 2. Measurements at Anaheim – Anaheim Loara School Monitoring Station, 1630 W. Pampas Lane, Anaheim, CA 92802 (CARB# 30178). Source: All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database (https://www.arb.ca.gov/adam) except for CO, which were retrieved from the CARB Air Quality and Meteorological Information System (https://www.arb.ca.gov/aqmis2/aqdselect.php).			

Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive receptors in proximity to localized sources of toxins are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive land uses surrounding the Project site consist mostly of low to medium-high density residences, parks,

educational institutions, retirement community, and recreational facilities. **Table 7: Sensitive Receptors**, lists the distances and locations of sensitive receptors within the Project vicinity.

Table 7: Sensitive Receptors

Receptor Type/Description	Distance and Direction from the Project Site
Project Site A	
UCI Puerta del Sol Building	Adjacent to the west
UCI Plaza Verde Building	131 feet to the east
UCI Early Childhood Education Center	97 feet to the south
Columbia Apartment	804 feet to the north
Arroyo Vista Housing	401 feet to the southeast
Harvard Manor Apartment	847 feet to the north
Regents Point Retirement Community	1,279 feet to the north
UCI Campus Recreation	1,547 feet to the south
UCI Camino del Sol	1,563 feet to the southeast
William R Mason Regional Park	1,690 feet to the north
University High School	1,835 feet to the northeast
Single-family Residential	1,918 feet to the east
UCI Vista del Campo	2,704 feet to the southeast
Mountain View Park	3,988 feet to the southeast
Project Site B	
UCI Puerta del Sol Building	88 feet to the east
UCI Dental Clinic	261 feet to the south
Aldrich Park	1,723 feet to the west
Education Building	170 feet to the west
Cornell Court Apartment	110 feet to the north
Berkeley Court Apartment	242 feet to the northwest
Student Health Center	328 feet to the southwest
Single-family Residential	1,910 feet to the south
University Montessori School	2,078 feet to the southwest
UCI Middle Earth Housing	700 feet to the southwest
UCI Palo Verde Housing	1,589 feet to the southeast
UCI Verano Place Housing	141 feet to the east
Darhmouth Apartment	1,662 feet to the northwest
1. Distance measured from the Project site boundary line to the property line of the sensitive receptor.	
Source: Google Earth, 2025.	

Thresholds of Significance

The SCAQMD significance criteria may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if a proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during project construction and operations, as shown in **Table 8: South Coast Air Quality Management District Emissions Thresholds**.

Table 8: South Coast Air Quality Management District Emissions Thresholds

Criteria Air Pollutants and Precursors (Regional)	Pounds Per Day	
	Construction	Operations
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO _x)	100	55
Sulfur Oxides (SO _x)	150	150
Coarse Particulates (PM ₁₀)	150	150
Fine Particulates (PM _{2.5})	55	55
Source: South Coast Air Quality Management District, 2023, <i>South Coast AQMD Air Quality Significance Thresholds</i> , https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25 . Accessed January 2025.		

4.3a *Conflict with or obstruct implementation of the applicable air quality plan?*

Less Than Significant Impact. As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the NAAQS. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the NAAQS and CAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project site is located within the SCAB, which is under SCAQMD's jurisdiction. The SCAQMD is required, pursuant to the FCAA, to reduce emissions of criteria pollutants for which the SCAB is in nonattainment. To reduce such emissions, the SCAQMD drafted the 2016 AQMP and 2022 AQMPs. The AQMPs establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving NAAQS and CAAQS. The AQMPs are a regional and multi-agency effort including the SCAQMD, the CARB, the SCAG, and the U. S. EPA. The AQMPs pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's Connect SoCal, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The Project is subject to SCAQMD's AQMP. Criteria for determining consistency with the AQMP are defined by the following indicators:

- **Consistency Criterion No. 1:** The Project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of the AQMP's air quality standards or the interim emissions reductions.
- **Consistency Criterion No. 2:** The Project would not exceed the AQMP's assumptions or increments based on the years of the Project build-out phase.

The violations to which Consistency Criterion No. 1 refers are CAAQS and NAAQS. As shown in **Table 9** and **Table 10** below, the Project would not exceed the short-term construction standards or long-term operational standards and would therefore not violate any air quality standards. Thus, no impact is expected, and the Project would be consistent with the first criterion.

Concerning Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans.

The proposed Project would construct up to 1,100 beds for on campus student housing. The Project would be consistent with the existing assumptions evaluated under the 2007 LRDP for student housing and would serve the planned student population on campus. By providing additional on-campus housing, the Project would shift some students who would commute from off-campus locations to on-campus residences. This change would accommodate planned growth anticipated under the 2007 LRDP and its subsequent amendments and would reduce vehicle emissions due to fewer vehicle trips and shorter trip lengths by providing residential development on the campus.

LRDP Amendment #5

UCI is proposing to amend the 2007 LRDP land use designation from Academic & Support to Student Housing for Project Site A and Site B. Thus, existing uses would be demolished, and Site A and Site B would be redeveloped with student housing at a density of up to 1,100 total beds. As noted, this is within the capacity anticipated under full buildout of the 2007 LRDP and its subsequent amendments. As such, the new student housing buildings would not generate population growth and instead serve the existing and projected student population. Therefore, the proposed LRDP Amendment #5 would accommodate anticipated growth which would reduce associated vehicle emissions due to fewer vehicle trips and shorter trip lengths by providing residential development on the campus and reducing the need to travel from off-site locations (refer to *Section 2.1, Project Location and Setting*).

The Project proposes a new student housing development with up to 1,100 beds total for both Site A and Site B. As noted above in *Section 2.1, Project Location and Setting*, and analyzed in *Section 4.14, Population and Housing*, this would not generate a population increase and would be within the anticipated capacity of the 2007 LRDP and its subsequent amendments. Therefore, the Project would also be consistent with assumptions anticipated in the General Plan (and accordingly the projects within the AQMP). Additionally, it would not cause the SCAQMD's population or job growth projections used to develop the AQMP to be exceeded. The Project also supports SCAG RTP/SCS and SCAQMD policies promoting infill development to reduce emissions. Thus, a less than significant impact would occur, as the Project is also consistent with the second criterion.

Therefore, as the Project would be consistent with the LRDP growth projections it would not exceed the AQMP's assumptions and no new impact relative to AQMP consistency or a substantial increase in the severity of a previously identified significant impact evaluated in the LRDP EIR would occur.

4.3b Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Project Impact Adequately Addressed in LRDP EIR.

Construction Emissions

Project construction activities would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include O₃-precursor pollutants (i.e., ROG and NO_x) and PM₁₀ and PM_{2.5}. Construction-generated emissions are short term and temporary, lasting only while

construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from site grading, road paving, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities, as well as weather conditions and the appropriate application of water.

The duration of construction activities associated with the proposed Project are estimated to last up to 22 months with construction of two sites occurring concurrently. The Project would demolish the existing building and parking lot and is anticipated to generate approximately 2,149 tons of debris for Site A and approximately 3,408 tons for Site B. Construction-related emissions were calculated using CalEEMod, which is designed to model emissions for land use development projects, based on typical construction requirements. Additionally, the proposed Project would implement LRDP EIR MM Air-2B, which would require compliance with SCAQMD Rule 403 (Fugitive Dust). See **Appendix A** for more information regarding the construction assumptions used in this analysis. The Project's predicted maximum daily construction-related emissions are summarized in **Table 9: Construction-Related Emissions**. As shown in **Table 9**, all criteria pollutant emissions would remain below their respective thresholds and with implementation of LRDP EIR MM Air-2B Project construction related impacts to air quality emissions would be less than significant.

Table 9: Construction-Related Emissions

Construction Year	Maximum Pounds Per Day ^{1, 2}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Project Site A Emissions						
Year 1 (2026)	1.44	13.81	15.54	0.03	1.70	0.69
Year 2 (2027)	2.09	13.28	29.60	0.03	5.74	1.90
Year 3 (2028)	19.85	10.78	28.48	0.03	5.71	1.53
Project Site B Emissions						
Year 1 (2026)	1.45	14.29	15.62	0.03	2.26	0.79
Year 2 (2027)	2.29	13.74	27.74	0.03	4.56	1.95
Year 3 (2028)	22.52	11.74	26.82	0.03	4.52	1.28
Total Emissions (Site A + Site B)						
Year 1 (2026)	2.89	28.10	31.16	0.06	3.96	1.48
Year 2 (2027)	4.38	27.01	57.34	0.07	10.30	3.85
Year 3 (2028)	42.36	22.52	55.30	0.07	10.23	2.81
Maximum Emissions	42.36	28.10	57.34	0.07	10.30	3.85
SCAQMD Threshold	75	100	550	150	55	150
Exceeds Threshold?	No	No	No	No	No	No
ROG = Reactive Organic Gases; NO _x = Nitrogen Oxides; CO = Carbon Monoxide; SO ₂ = Sulfur Dioxide; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less						
Notes:						
1. SCAQMD Rule 403 Fugitive Dust applied. Rule 403 reduction/credits include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied. Refer to Appendix A for Model Data Outputs.						
2. Totals may not add due to rounding.						
Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.						

The Project's operational emissions would be associated with area sources (such as the use of landscape maintenance equipment and architectural coatings), motor vehicle use, and energy sources. Operational emissions attributable to the proposed Project are summarized in **Table 10: Long-Term Operational Emissions**. Note that emissions rates differ from summer to winter because weather factors are dependent on the season and these factors affect pollutant mixing, dispersion, ozone formation, and other factors. As shown in **Table 10**, the Project's operational emissions would not exceed SCAQMD thresholds for any criteria air pollutants. Therefore, the Project's operational emissions would result in a less than significant long-term regional air quality impact.

Table 10: Long-Term Operational Emissions

Source	Maximum Pounds Per Day ¹					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Project Site A Emissions						
Area	5.78	0.28	30.06	<0.01	0.01	0.01
Energy (Electricity) ²	0	0	0	0	0	0
Mobile	0.86	0.63	6.88	0.02	1.81	0.47
Project Site B Emissions						
Area	6.41	0.31	32.45	<0.01	0.02	0.01
Energy (Electricity) ²	0	0	0	0	0	0
Mobile	0.93	0.68	7.42	0.02	1.95	0.50
Total Emissions (Site A + Site B)						
Area	12.19	0.59	62.52	<0.01	0.03	0.02
Energy (Electricity) ²	0	0	0	0	0	0
Mobile	1.78	1.30	14.30	0.04	3.76	0.97
Total Emissions	13.98	1.90	76.81	0.04	3.79	0.99
<i>SCAQMD Threshold</i>	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
ROG = Reactive Organic Gases; NO _x = Nitrogen Oxides; CO = Carbon Monoxide; SO ₂ = Sulfur Dioxide; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less 1. Totals may not add due to rounding. 2. The Project would not use on-site fossil fuel combustion, including natural gas, in compliance with the UC Sustainable Practices Policy. Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.						

As noted above, the Project's operational emissions would be associated with mobile sources (i.e., motor vehicle use), energy sources, and area sources. Each of these sources are described below.

Area Source Emissions. Area source emissions would be generated due to consumer products (e.g., fertilizers/pesticides, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints, lab chemicals, etc.), architectural coatings, and gasoline-powered landscaping equipment that were previously not present on the site.

Energy Source Emissions. Energy source emissions would not occur on-site. The University of California does not allow the on-site combustion of fossil fuel, such as natural gas, for space and water heating in new buildings or major renovations. Electricity generation takes place off site at power plants, which are existing stationary sources permitted by air districts and/or the U.S. EPA. Criteria pollutant emissions are generally associated with the power plants themselves, and not individual buildings or electricity users. The Project's primary uses of electricity would be for space heating and cooling, water heating, ventilation,

lighting, appliances, and electronics. Consistent with the UC Sustainable Practices Policy, clean electricity will be provided to the Project through the UC Clean Power Program.

Mobile Source Emissions. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_x, PM₁₀, and PM_{2.5} are all pollutants of regional concern. NO_x and ROG react with sunlight to form O₃, known as photochemical smog. Additionally, wind currents readily transport PM₁₀ and PM_{2.5}. However, CO tends to be a localized pollutant, dispersing rapidly at the source. Project-generated vehicle emissions were estimated using CalEEMod, as recommended by the SCAQMD. The Project's average daily trip estimates are based on trip generation rates outlined in the VMT Analysis for the Project, see **Appendix G**. For the purposes of the mobile source emissions, the permit take rate reduction for trip generation was not included to ensure a conservative analysis of Project-generated vehicle emissions. Therefore, for this analysis the Project was estimated to generate 796 average daily trips (ADT). As shown in **Table 10**, mobile source emissions would not exceed SCAQMD thresholds for criteria pollutants. Therefore, impacts associated with mobile source emissions due to the proposed Project and LRDP Amendment #5 that accommodates the Project would be less than significant. No mitigation is required.

Cumulative Construction Impacts

The SCAB is designated nonattainment for O₃, PM₁₀, and PM_{2.5} for State standards and nonattainment for O₃ and PM_{2.5} for Federal standards. As discussed above, the Project's construction-related emissions by themselves would not exceed the SCAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether individual Project emissions have the potential to affect cumulative regional air quality, it can be expected that the Project-related construction emissions would not be cumulatively considerable. The SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal Clean Air Act mandates. The analysis assumed fugitive dust controls would be utilized during construction, including frequent water applications. SCAQMD rules, mandates, and compliance with adopted AQMP emissions control measures would also be imposed on construction projects throughout the SCAB, which would include related cumulative projects. As concluded above, the Project's construction-related impacts would be less than significant. Compliance with SCAQMD rules and regulations would further minimize the proposed Project's construction-related emissions. Therefore, Project-related construction emissions, in combination with those from other projects in the area, would not substantially deteriorate the local air quality. The Project's construction-related emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Operational Impacts

The SCAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, individual project emissions contribute to existing cumulatively significant adverse air quality impacts. The SCAQMD developed the operational thresholds of significance based on the level above which individual project emissions would result in a cumulatively considerable contribution to the SCAB's existing air quality conditions. Therefore,

a project that exceeds the SCAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in **Table 10**, the Project's operational emissions would not exceed SCAQMD thresholds. Therefore, the Project's operational emissions would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Project operations would not contribute cumulatively to a considerable net increase of nonattainment criteria pollutants.

The LRDP EIR anticipated future development within the campus and predicted maximum air quality impacts based on worst-case assumptions. The 2007 LRDP EIR determined that the worst-case construction scenario and operational emissions from future projects associated with implementation of the 2007 LRDP would exceed significance thresholds for CO, VOCs, NO_x, PM₁₀ and PM_{2.5}. Individual construction projects may or may not result in significant impacts, depending on the project size and features. Operational mitigation measures in the LRDP EIR include requiring UCI to continue implementing its alternative transportation program, complying with SCAQMD Rules, and minimizing area source emissions (e.g., cooling and heating systems, landscaping, consumer products, etc.). The LRDP EIR determined that since construction and operational emissions would exceed SCAQMD thresholds, the impacts would also result in a cumulatively considerable air quality impact. The analysis above shows that the proposed Project would not exceed SCAQMD construction or operational thresholds and would not result in a significant cumulative impact. Therefore, no new impact relative to air quality or a substantial increase in the severity of a previously identified significant impact evaluated in the 2007 LRDP EIR would occur.

4.3c *Expose sensitive receptors to substantial pollutant concentrations?*

Less than Significant Impact. The nearest sensitive receptors to the Project site are UCI student housing directly to the west of the Site A construction area. There is also childcare center approximately 97 feet to the south of Site A and multifamily residences approximately 110 feet north from Site B. To identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts from Project-specific emissions.

Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, **Table 11: Equipment-Specific Grading Rates**, is used to determine the maximum daily disturbed acreage for comparison to LSTs. The appropriate SRA for the localized significance thresholds is the Central Orange County Coastal area (SRA 20) since this area includes the Project site. LSTs apply to CO, NO₂, PM₁₀, and PM_{2.5}. The SCAQMD produced look-up tables⁴ for projects that disturb areas less than or equal to 5 acres. Project construction is anticipated to disturb a maximum of 2 acres in a single day.

⁴ South Coast Air Quality Management District, 2009, *Appendix C – Mass Rate LST Look-up Tables*.

Table 11: Equipment-Specific Grading Rates

Construction Phase	Equipment Type	Equipment Quantity	Acres Graded per 8-Hour Day	Operating Hours per Day	Acres Graded per Day
Grading	Graders	2	0.5	8	1
	Dozers	2	0.5	8	1
	Scrapers	0	1.0	8	0
	Tractors/Loaders/Backhoes	0	0.5	8	0
Total Acres Graded per Day					2
Notes:					
1. Total acres graded each day is based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, not the total acreage of the Project site.					
Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.					

The SCAQMD's methodology states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs."⁵ Therefore, for the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. The nearest sensitive receptors to the Project site are UCI Puerta del Sol Housing directly to the west of the Site A construction area, UCI Early Childhood Education Center located approximately 97 feet (303 meters) to the south of Site A, and multifamily residences approximately 110 feet (34 meters) from Site B. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters (the SCAQMD recommends the 25-meter LSTs to be used for receptors located closer than 25 meters). **Table 12: Localized Significance of Construction Emissions**, presents the results of localized emissions during Project construction. **Table 12** shows that the emissions of these pollutants on the peak day of Project construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project would result in a less than significant impact concerning LSTs during construction activities.

Table 12: Localized Significance of Construction Emissions

Construction Activity	Maximum Pounds Per Day ¹			
	NO _x	CO	PM ₁₀	PM _{2.5}
Project Site A Emissions				
Demolition (2026)	12.94	14.62	1.35	0.60
Demolition (2027)	12.43	14.44	1.31	0.56
Grading (2027)	12.18	13.87	3.30	1.83
Building Construction (2027)	8.25	9.91	0.26	0.24
Building Construction (2028)	7.89	9.88	0.23	0.21
Paving (2027)	4.30	6.49	0.17	0.16
Architectural Coating (2028)	0.81	1.12	0.02	0.01
Project Site B Emissions				
Demolition (2026)	12.94	14.62	1.85	0.67
Demolition (2027)	12.43	14.44	1.81	0.64
Grading (2027)	12.18	13.87	3.30	1.83
Building Construction (2027)	9.70	11.70	0.32	0.30
Building Construction (2028)	9.23	11.67	0.28	0.26
Paving (2027)	5.74	8.20	0.23	0.21

⁵ South Coast Air Quality District, July 2008, *Finalized Localized Significance Threshold Methodology*, p. 11.

Construction Activity	Maximum Pounds Per Day ¹			
	NO _x	CO	PM ₁₀	PM _{2.5}
Architectural Coating (2028)	0.81	1.12	0.02	0.01
Total Emissions (Site A + Site B)				
Demolition (2026)	25.88	29.23	3.20	1.27
Demolition (2027)	24.87	28.87	3.12	1.20
Grading (2027)	24.36	27.74	6.61	3.66
Building Construction (2027)	17.95	21.61	0.58	0.54
Building Construction (2028)	17.12	21.55	0.52	0.47
Paving (2027)	10.04	14.69	0.40	0.37
Architectural Coating (2028)	1.62	2.24	0.03	0.03
Maximum Emissions	25.88	29.23	6.61	3.66
<i>SCAQMD Localized Screening Threshold (adjusted for 2 acres at 25 meters)</i>	131	962	7	5
Exceed SCAQMD Threshold?	No	No	No	No
NO _x = Nitrogen Oxides; CO = Carbon Monoxide; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less 1. Totals may not add due to rounding. Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.				

Localized Operational Significance Analysis

LSTs for receptors located at 25 meters for SRA 20 were utilized in this analysis. As the building footprint is less than four acres, the two-acre LST thresholds were used. The two-acre localized significance threshold is conservative as the thresholds increase with project size. The on-site operational emissions are compared to the LST thresholds in **Table 13: Localized Significance of Operational Emissions**. **Table 13** shows that the maximum daily emissions of on-site pollutants during Project operations would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project and proposed LRDP Amendment #5 would result in a less than significant impact concerning LSTs during operational activities. No mitigation is required.

Table 13: Localized Significance of Operational Emissions

Activity	Maximum Pounds Per Day ¹			
	NO _x	CO	PM ₁₀	PM _{2.5}
Site A On-Site Emissions (Area Source) ²	0.28	30.06	0.01	0.01
Site B On-Site Emissions (Area Source) ²	0.31	32.45	0.02	0.01
Site A + Site B Total On-Site Emissions (Area Source)²	0.59	62.52	0.03	0.02
<i>SCAQMD Localized Screening Threshold (2 acres at 25 meters)</i>	131	962	2	2
Exceed SCAQMD Threshold?	No	No	No	No
NO _x = Nitrogen Oxides; CO = Carbon Monoxide; PM ₁₀ = Particulate Matter 10 microns in diameter or less; PM _{2.5} = Particulate Matter 2.5 microns in diameter or less 1. Totals may not add due to rounding. 2. The Project would not result in energy emissions as the Project would not use on-site fossil fuel combustion, including natural gas, in compliance with the UC Sustainable Practices Policy. Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.				

Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a Project's air emissions to health impacts or explain why such information could not be ascertained (*Sierra Club v. County of Fresno* [Friant Ranch, L.P.] [2018] 6 Cal.5th 502 Case No. S219783).

As previously discussed, Project emissions would be less than significant and would not exceed SCAQMD thresholds (refer to **Table 9** and **Table 10**). Localized effects of on-site Project emissions on nearby receptors were also found to be less than significant (refer to **Table 12** and **Table 13**). The LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS. The LSTs were developed by the SCAQMD based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. The ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect public health, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. As shown above, Project-related emissions would not exceed the regional thresholds or the LSTs, and therefore would not exceed the ambient air quality standards or cause an increase in the frequency or severity of existing violations of air quality standards. Therefore, sensitive receptors would not be exposed to criteria pollutant levels in excess of the health-based ambient air quality standards.

Carbon Monoxide Hotspots

An analysis of CO "hot spots" is needed to determine whether the change in the level of service of an intersection resulting from the proposed Project would have the potential to result in exceedances of the CAAQS or NAAQS. It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when vehicles are idling at intersections. Vehicle emissions standards have become increasingly stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations have steadily declined. Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard.

The SCAB was re-designated as attainment in 2007 and is no longer addressed in the SCAQMD's AQMP. The 2003 AQMP is the most recent version that addresses CO concentrations. As part of the SCAQMD CO Hotspot Analysis, the Wilshire Boulevard and Veteran Avenue intersection, one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day, was modeled for CO concentrations. This modeling effort identified a CO concentration high of 4.6 ppm, which is well below the 35-ppm NAAQS. The Project considered herein would not produce the volume of traffic required to generate a CO hot spot in the context of SCAQMD's CO Hotspot Analysis. As the CO hotspots were not experienced at the Wilshire Boulevard and Veteran Avenue intersection even as it accommodates 100,000 vehicles daily, it can be reasonably inferred that CO hotspots would not be experienced at any intersections in the vicinity of the Project site resulting in approximately 796 daily vehicle trips attributable to the Project (**Appendix G**). Therefore, impacts would be less than significant in this regard.

Construction-Related Diesel Particulate Matter

Project construction would generate DPM emissions from the use of off-road diesel equipment required for demolition, grading, paving, and other construction activities. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment is highly dispersive and concentrations of DPM dissipate rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The closest sensitive receptors to the Project site are located adjacent to the Site A and are further from the major Project construction areas.

Project construction involves phased activities in several areas across the site and the Project would not require the extensive use of heavy-duty construction equipment or diesel trucks in any one location over the duration of development, which would limit the exposure of any proximate individual sensitive receptor to TACs. Additionally, construction projects contained on a site of this small size generally represent less than significant health risk impacts due to (1) limitations on the off-road diesel equipment able to operate and thus a reduced amount of generated DPM; (2) the reduced amount of dust-generating ground disturbance possible compared to larger construction sites; and (3) the reduced duration of construction activities compared to the development of larger sites.

Construction is subject to and would comply with California regulations (e.g., California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Sections 2485 and 2449), which reduce DPM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles and limit the idling of heavy-duty construction equipment to no more than five minutes. These regulations would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Given the temporary and intermittent nature of construction activities likely to occur within specific locations in the Project site (i.e., construction is not likely to occur in any one location for an extended time), the dose of DPM of any one receptor is exposed to would be limited. Therefore, considering the relatively short duration of DPM-emitting construction activity at any one location of the plan area and the highly dispersive properties of DPM, sensitive receptors would not be exposed to substantial concentrations of construction-related TAC emissions.

California Office of Environmental Health Hazard Assessment has not identified short-term health effects from DPM. As noted above, construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction activities would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. For these reasons, DPM generated by Project construction activities, in and of itself, would not expose sensitive receptors to substantial amounts of air toxics and the Project would result in a less than significant impact.

4.3d *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less Than Significant Impact. The SCAQMD *CEQA Air Quality Handbook* identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The proposed Project would not include any of the land uses that have been identified by the SCAQMD as odor sources.

During construction-related activities, some odors (not substantial pollutant concentrations) that may be detected are those typical of construction vehicles (e.g., diesel exhaust from grading and construction equipment). These odors are a temporary short-term impact that is typical of construction projects and would disperse rapidly. The Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, the proposed Project would not create objectionable odors.

LRDP EIR Mitigation Measures

Air-2B: Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall ensure that the project construction contract includes a construction emissions mitigation plan, including measures compliant with SCAQMD Rule 403 (Fugitive Dust), to be implemented and supervised by the on-site construction supervisor, which shall include, but not be limited to, the following BMPs:

- i. During grading and site preparation activities, exposed soil areas shall be stabilized via frequent watering, non-toxic chemical stabilization, or equivalent measures at a rate to be determined by the on-site construction supervisor.
- ii. During windy days when fugitive dust can be observed leaving the construction site, additional applications of water shall be required at a rate to be determined by the onsite construction supervisor.
- iii. Disturbed areas designated for landscaping shall be prepared as soon as possible after completion of construction activities.
- iv. Areas of the construction site that will remain inactive for three months or longer following clearing, grubbing and/or grading shall receive appropriate BMP treatments (e.g., revegetation, mulching, covering with tarps, etc.) to prevent fugitive dust generation.
- v. All exposed soil or material stockpiles that will not be used within 3 days shall be enclosed, covered, or watered twice daily, or shall be stabilized with approved nontoxic chemical soil binders at a rate to be determined by the on-site construction supervisor.
- vi. Unpaved access roads shall be stabilized via frequent watering, non-toxic chemical stabilization, temporary paving, or equivalent measures at a rate to be determined by the on-site construction supervisor.

- vii. Trucks transporting materials to and from the site shall allow for at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer). Alternatively, trucks transporting materials shall be covered.
- viii. Speed limit signs at 15 mph or less shall be installed on all unpaved roads within construction sites.
- ix. Where visible soil material is tracked onto adjacent public paved roads, the paved roads shall be swept and debris shall be returned to the construction site or transported off site for disposal.
- x. Wheel washers, dirt knock-off grates/mats, or equivalent measures shall be installed within the construction site where vehicles exit unpaved roads onto paved roads.
- xi. Diesel powered construction equipment shall be maintained in accordance with manufacturer's requirements, and shall be retrofitted with diesel particulate filters where available and practicable.
- xii. Heavy duty diesel trucks and gasoline powered equipment shall be turned off if idling is anticipated to last for more than 5 minutes.
- xiii. Where feasible, the construction contractor shall use alternatively fueled construction equipment, such as electric or natural gas-powered equipment or biofuel.
- xiv. Heavy construction equipment shall use low NOx diesel fuel to the extent that it is readily available at the time of construction.
- xv. To the extent feasible, construction activities shall rely on the campus's existing electricity infrastructure rather than electrical generators powered by internal combustion engines.
- xvi. The construction contractor shall develop a construction traffic management plan that includes the following:
 - Scheduling heavy-duty truck deliveries to avoid peak traffic periods
 - Consolidating truck deliveries
- xvii. Where possible, the construction contractor shall provide a lunch shuttle or on-site lunch service for construction workers.
- xviii. The construction contractor shall, to the extent possible, use pre-coated architectural materials that do not require painting. Water-based or low VOC coatings shall be used that are compliant with SCAQMD Rule 1113. Spray equipment with high transfer efficiency, such as the high volume-low pressure spray method, or manual coatings application shall be used to reduce VOC emissions to the extent possible.
- xix. Project construction plans and specifications will include a requirement to define and implement a work program that would limit the emissions of reactive organic gases (ROG's) during the application of architectural coatings to the extent necessary

to keep total daily ROG's for each project to below 75 pounds per day, or the current SCAQMD threshold, throughout that period of construction activity to the extent feasible. The specific program may include any combination of restrictions on the types of paints and coatings, application methods, and the amount of surface area coated as determined by the contractor.

- xx. The construction contractor shall maintain signage along the construction perimeter with the name and telephone number of the individual in charge of implementing the construction emissions mitigation plan, and with the telephone number of the SCAQMD's complaint line. The contractor's representative shall maintain a log of any public complaints and corrective actions taken to resolve complaints.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.4 BIOLOGICAL RESOURCES

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X		
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 US Fish and Wildlife Service?				X	
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				X	
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?			X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X		
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?					X

Discussion

Biological resources issues are discussed in Section 4.3 of the LRDP EIR. A site-specific Biological Resources Assessment for the East Campus Student Apartments Phase 5 Project was prepared by Carlson Land Solution and is included as **Appendix B: Biological Resource Assessment** to this IS/MND.

4.4a *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?*

Less than Significant with Project-level Mitigation Incorporated. According to the LRDP EIR, implementation of the 2007 LRDP could result in indirect impacts to existing or potentially occurring candidate, sensitive, or special status plant species within the campus Planning Areas or in adjacent areas within the UCI Natural Communities Conservation Program (NCCP) Reserve Area and the San Joaquin Freshwater Marsh Reserve (SJFMR). The LRDP EIR concluded that impacts would be reduced to less than significant with mitigation incorporated. The proposed Project is not located within or in the vicinity of the UCI NCCP Reserve Area or the SJFMR, therefore there would be no potentially significant impact in this regard, and LRDP EIR mitigation would not apply.

Additionally, The LRDP EIR found implementation of the 2007 LRDP could result in significant direct impacts to the western burrowing owl and/or could result in significant indirect impacts to existing or potentially occurring candidate, sensitive, or special status wildlife species within the campus Planning Areas or in adjacent areas within the UCI NCCP Reserve Area and the SJFM. The LRDP EIR concluded that impacts would be reduced to less than significant with mitigation incorporated. The proposed Project is not located within the UCI NCCP Reserve Area or the SJFMR, therefore there would be no potentially significant impact in this regard, and LRDP EIR mitigation would not apply.

The proposed Project is located in an urbanized area on developed sites currently occupied by surface parking lots and a vacant office building. As noted above, the Project site is not located within the UCI NCCP Reserve Area or the SJFMR. A field survey was performed on November 27, 2024 for both sites including a 300-foot buffer from the Project boundaries to assess and map vegetation communities, plants, and wildlife, and to identify habitat areas that could be suitable for special status plant species (**Appendix B**). Located adjacent to the east of Site B, within the 300-foot buffer, is an existing Mitigation Site for UCI containing a drainage feature and riparian plant species. Project construction would not temporarily or permanently impact the existing Mitigation Site, no Project improvements would occur within this area.

Plant Species

Both Project sites contain developed/disturbed land with ornamental landscaping including vinegartree (*Lophostemon confertus*), Indian coral tree (*Lophostemon confertus*), golden raintree (*Koelreuteria paniculata*), lemon scented gum (*Corymbia ciriodora*), common camellia (*Camellia japonica*), Honey locust (*Gleditsia triacanthos*), small Philippine acacia (*Acacia confusa*), deergrass (*Muhlenbergia rigens*), pittosporum (*Pittosporum spp.*), and tropical ash (*Fraxinus uhdei*). No federally- or state-listed as endangered or threatened plant species, special status plant species, or species considered sensitive by the CNPS were observed on the Project sites during the general biological field survey. Sensitive plants include those listed, or candidates for listing, by the USFWS and CDFW; and species considered sensitive

by the CNPS, fourteen (14) sensitive plant species are known to occur within the USGS 7.5' Tustin quadrangle, which is where the Project is located. Of the sensitive plant species known to occur within the area, none were observed on either Project site and none have the potential to occur on either Project site due to the built environment and lack of suitable habitat or soil. Therefore, the proposed Project would have a less than significant impact on candidate, sensitive, or special status plant species and no mitigation is required.

Wildlife Species

No federally- or state-listed as threatened or endangered wildlife species were observed during the general biological survey, and none have the potential to occur based on the disturbed nature of the sites, lack of suitable habitats, and surrounding land uses. No special status wildlife were identified or observed within either Project site during the field survey. Special status wildlife species with the potential to occur on either site were analyzed based on the species identified in USGS 7.5' Tustin quadrangle, distribution, habitat requirements, and existing site conditions. The following twenty seven (27) species were identified as known to occur in the area, Cooper's Hawk, Tricolor blackbird, Southern California rufous-crowned sparrow, White-tailed kite, California Horned Lark, Yellow-breasted chat, Coastal California gnatcatcher, California least tern, Southwestern Pond Turtle, Grasshopper Sparrow, Burrowing Owl, Crotch Bumble Bee, American Bumble Bee, Coastal Cactus Wren, Mexican Long-tongued Bat, Western Beach Tiger Beetle, Western Yellow-Billed Cuckoo, Yellow Rail, Red-diamond Rattlesnake, Western Mastiff Bat, California Black Rail, Belding's Savannah Sparrow, Pacific Pocket Mouse, Coast Horned Lizard, Light-footed Ridgway's rail, Southern California saltmarsh shrew, and Western Spadefoot. It was determined that none of the above listed species have the potential to occur on either Project site due to the developed nature of the sites and lack of suitable nesting and foraging habitat. Specifically, with respect to White-tailed kite, which are known to occur on the campus, neither Project site has suitable habitat as the existing ornamental tree species are too small for nesting and do not provide dense canopy coverage from predators. Additionally, with respect to burrowing owl, the field survey did not identify any suitable nesting habitat on either site nor were any individuals observed. Further, with respect to Crotch's bumble bee, no suitable pollinator habitat was identified on either Project site (i.e., open grassland and scrub habitats). Therefore, Project implementation would not result in a substantial adverse effect to these species.

However, both Project sites contain ornamental landscaping and trees that would be removed during construction activities, including vegetation clearing. Though unlikely, there is the potential the ornamental landscaping could support avian nests, impacts to nesting birds are prohibited by the MBTA and/or CFGC §3503, which state that it is unlawful to "take, possess, or needlessly destroy" avian nests or eggs. Thus, potential impacts could occur if vegetation clearing associated with Project construction is undertaken during the nesting season. Therefore, the Project would comply with project-level Mitigation Measure BIO-1, which requires a pre-construction nesting bird survey if avoidance of the nesting season is not feasible. If active nests are identified, suitable buffers would be established and the buffer areas would be avoided until the nests are no longer occupied, and the juvenile birds can survive independently from the nests. Therefore, with implementation of Mitigation Measure BIO-1, potential impacts would be mitigated to less than significant.

- 4.4b *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 US Fish and Wildlife Service?*
- 4.4c *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?*

Less Than Significant Impact. The LRDP EIR determined implementation of the 2007 LRDP would result in significant direct impacts to the following sensitive vegetation communities: mule fat scrub and herbaceous wetland. Additionally, the LRDP determined implementation of the 2007 LRDP could result in significant indirect impacts to a variety of sensitive vegetation communities within dedicated open space areas in the campus Planning Areas or in adjacent areas within the UCI NCCP Reserve Area and the SJFM. The 2017 TLRDP EIR concluded that impacts would be reduced to less than significant with mitigation incorporated. The proposed Project is not located in the vicinity of or within the UCI NCCP Reserve Area or the SJFMR, therefore there would be no potentially significant impact in this regard, and LRDP EIR mitigation would not apply.

The LRDP EIR also determined implementation of the 2007 LRDP would result in significant direct and indirect impacts to federally protected wetlands and other areas that could be subject to USACE, CDFG, or RWQCB jurisdiction. However, LRDP EIR Mitigation Measure Bio-4A would reduce direct impacts to federally protected wetlands and other jurisdictional areas to less than significant.

A CNDDDB search within the Tustin USGS topographic quadrangle and the surrounding seven quadrangles found six special-status vegetation communities designated by CDFW. The special status vegetation communities include California Walnut Woodland, Riversidian Alluvial Fan Sage Scrub, Southern Coastal Salt March, Southern Sycamore Willow Riparian Forest, Southern Interior Cypress Forest, and Southern Riparian Scrub. The Project sites do not contain any of the listed special-status vegetation types (**Appendix B: Biological Resource Assessment**). The Project sites do not contain mule fat scrub or herbaceous wetland sensitive vegetation communities, nor is this Project located within a dedicated open space area or adjacent to or within the UCI NCCP Reserve Area or the SJFM. Therefore, the proposed Project would not result in a substantial adverse effect on sensitive natural community.

The Biological Resources Assessment found the Project sites do not support any features that may be considered potentially jurisdictional (**Appendix B**). There are no riparian habitats or federally protected wetlands or resources on the Project sites. Neither Project site contains any water resources (e.g., streams, creeks, channels, vernal pools) nor would any of the proposed land uses potentially affect wetlands. As noted above, to the east of Site B is an existing Mitigation Site, however Project construction would not temporarily or permanently impact the existing Mitigation Site, no Project improvements would occur within this area. The Project site does not contain riparian habitat, sensitive natural communities, or wetlands. Therefore, the proposed Project would not have a substantial adverse effect on any riparian habitat, other sensitive natural community, or federally protected wetlands and impacts would be less than significant.

4.4d Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Project-level Mitigation Incorporated. According to the LRDP EIR, implementation of the 2007 LRDP would not interfere with wildlife movement corridors or impede movement by native species. The UCI campus has designated open space corridors between the Planning Areas, including the UCI NCCP Reserve Area. These corridors facilitate wildlife movement between the campus and the SJFMR. The LRDP EIR concluded that impacts would be reduced to less than significant with mitigation incorporated.

A wildlife corridor can be defined as a physical feature that links wildlife habitat, often consisting of native vegetation that joins two or more larger areas of similar wildlife habitat. Both Project sites are currently developed and are surrounded by existing development within the UCI campus. The Project sites support no live-in potential or movement habitat for species on a local scale (i.e., marginal movement habitat for reptile, bird, and mammal species) due to the built environment surrounding the Project sites. The Project sites provide no function to facilitate wildlife movement on a regional scale due to their primarily developed nature. Furthermore, the Project sites are not identified as a regionally important dispersal or seasonal migration corridor under the NCCP/HCP. Movement on a local scale likely occurs with species adapted to urban environments due to the surrounding development and disturbances in the vicinity of the Project sites.

However, as stated above both Project sites contain shrubs and ornamental landscaping, which have the potential to support avian nests. If vegetation clearing or ground disturbing activities are initiated during the nesting season, removal of the ornamental landscaping could result potential impacts if active nests are disturbed or destroyed. Therefore, in compliance with the MBTA, the Project would comply with project-level Mitigation Measure BIO-1, which requires a pre-construction nesting bird survey if avoidance of the nesting season is not feasible. If active nests are identified, suitable buffers would be established and the buffer areas would be avoided until the nests are no longer occupied, and the juvenile birds can survive independently from the nests. Therefore, with implementation of Mitigation Measure BIO-1, potential impacts would be mitigated to less than significant. Thus, the Project would not interfere 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. Impacts would be less than significant with project-level mitigation incorporated.

4.4e Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant with Project-level Mitigation Incorporated. This threshold was added in a subsequent CEQA Guidelines update. As such, this threshold was not included in the LRDP EIR.

The proposed Project would not conflict with applicable federal or State policies protecting biological resources. As discussed above in 4.4(a), project-level Mitigation Measure BIO-1 would require pre-construction nesting bird surveys, and therefore ensure compliance with the MBTA and/or CFGC §3503, which states that it is unlawful to “take, possess, or needlessly destroy” avian nests or eggs. Therefore, the proposed Project would not conflict with applicable federal or state policies or ordinances protecting

biological resources. The University is the only agency with local land use jurisdiction over the Project sites. No specific UC policies have been adopted for the Project sites protecting biological resources.

4.4f 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. This threshold was added in a subsequent CEQA Guidelines update. As such, this threshold was not included in the LRDP EIR.

According to the LRDP EIR, UCI is a participating landowner within the Orange County NCCP/HCP. For participating landowners, development activities and uses that are addressed by the Orange County NCCP/HCP are considered fully mitigated under the NCCP Act, the Federal Endangered Species Act, and California Endangered Species Act for impacts to habitats occupied by listed and other species “identified” by the Orange County NCCP/HCP and its associated Implementation Agreement.

The Project sites are not located within any portions of the NCCP Reserve Area on the UCI campus. The University is the only agency with local land use jurisdiction over campus land. The Project sites are not located within any other habitat conservation plans, therefore, no impacts would occur.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

BIO-1: If grading or site disturbance is to occur between January 1 through August 15 for raptors and February 15 through August 31 for all other avian species, a nesting bird survey shall be conducted within all suitable habitat, onsite and within 300-feet surrounding the sites (as feasible), by a qualified biologist within no more than 5 days of scheduled vegetation removal or start of ground disturbing activities, to determine the presence of nests or nesting birds. If active nests are identified, the biologist shall establish buffers around the vegetation (500 feet for raptors and sensitive species, 200 feet for non-raptors/non-sensitive species). All work within these buffers shall be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite biologist shall review and verify compliance with the no-work buffers and verify the nesting effort has finished. Work can resume when no other active nests are found onsite or within the surrounding buffer area. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas of an active nest with preparation and implementation of a Nesting Bird Management Plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared documenting mitigation monitoring compliance. If ground disturbances have not commenced within 5 days of a negative survey or if construction activities have stopped for 5 days or longer, the nesting survey must be repeated to confirm the absence of nesting birds.

4.5 CULTURAL RESOURCES

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?				X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X			
c) Disturb any human remains, including those interred outside of dedicated cemeteries?				X	

Discussion

Cultural resources issues are discussed in Section 4.4 of the LRDP EIR.

4.5a *Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?*

Less Than Significant Impact. State CEQA Guidelines Section 15064.5 defines “historic resources” as resources listed in the California Register of Historical Resources or determined to be eligible by the California Historical Resources Commission for listing in the California Register of Historic Resources.⁶ CEQA allows local historic resource guidelines to serve as the California Register of Historic Resources criteria if enacted by local legislation to act as the equivalent of the State criteria. The LRDP EIR identified that anticipated and potential development and redevelopment projects under the 2007 LRDP could demolish, relocate, or significantly change historic structures, if located on a historically significant property, identified in LRDP EIR Table 4.4-2 pursuant to CEQA Guidelines §15064.5. The LRDP EIR concluded that impacts would be reduced to less than significant with mitigation incorporated.

The LRDP EIR (Table 4.4-2) identifies campus buildings that would be at least 50 years old by the LRDP horizon year of 2025 and therefore potentially eligible for listing in the California Register of Historical Resources. Neither Project site are identified on LRDP EIR Table 4.4-2. In addition, the Phase I Environmental Site Assessment for Site A indicates that the existing building was constructed in 1989 and is less than 50 years old (**Appendix C**). Therefore, the proposed Project would not cause a substantial adverse change to a historical resource and impacts would be less than significant.

4.5b *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

Impact Adequately Addressed in LRDP EIR. The LRDP EIR concluded that proposed grading or excavation from implementation of the 2007 LRDP could damage or destroy recorded resources that are determined to be significant upon testing, or unrecorded resources that are determined to be significant. Recorded

⁶ California Public Resources Code Section 5020.1(k), Section 5024.1(g).

archaeological resources located within the East Campus are summarized in LRDP EIR Table 4.4-1. Two archaeological sites have been discovered and recorded in the East Campus, both resources were recovered and determined to not be significant, therefore the LRDP EIR concluded projects developed under the 2007 LRDP would have a less than significant impact in this regard. Neither of the proposed Project sites are located on or adjacent to either resource listed in LRDP EIR Table 4.4-1.

The LRDP EIR noted that implementation of the 2007 LRDP could have a significant impact on unrecorded resources that are determined to be significant. Impacts to unrecorded subsurface archaeological resources would be mitigated to less than significant levels with implementation of LRDP EIR Mitigation Measure Cul-1C. It is unlikely that archaeological resources are present on the Project sites given construction of the existing parking lot and vacant office building required site disturbance and excavation. However, Project construction would include excavation and grading which could unearth an unknown archaeological resource. Therefore, while low, there is the potential for the Project to result in an adverse change in the significance of a previously unidentified archaeological resource. However, as identified above the Project would implement LRDP EIR Mitigation Measure Cul-1C, which requires a qualified archaeologist to monitor land clearing/grading activities and in the event of an unexpected archaeological discovery the area to be avoided and the archaeologist to oversee evaluation and recovery of the resource. If the archaeological discovery is determined to be significant, the archaeologist shall prepare and implement a data recovery plan. Therefore, with implementation of LRDP EIR Mitigation Measure Cul-1C, the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines, and impacts in this regard would be less than significant.

4.5c Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. The LRDP EIR concluded impacts to the recorded archaeological resources in LRDP EIR Table 4.4-1 would be less than significant if the resource has been determined to not be significant, was previously destroyed, or has been recovered. No mitigation is required for impacts to sites that are not significant.

Both Project sites are heavily disturbed and are currently developed with surface parking lots and a vacant office building. Neither Project site has recorded resources, as listed in LRDP EIR Table 4.4-1. Due to the level of disturbance on-site and the vicinity, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or ground-disturbing activities. Nonetheless, if human remains are found, those remains would require proper treatment in accordance with applicable laws. California Resources Health and Safety Code §§7050.5 through 7055 describe the general provisions for human remains. Specifically, State Health and Safety Code §7050.5 requires that if any human remains are accidentally discovered during excavation of the sites, the County Coroner shall be notified of the find immediately, and no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code §5097.98. As required by State law, if the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). Following compliance with the aforementioned regulations, impacts related to the disturbance of human remains are less than significant.

LRDP EIR Mitigation Measures

Cul-1C: Prior to land clearing, grading, or similar land development activities for future projects that implement the 2007 LRDP in areas of identified archaeological sensitivity, UCI shall retain a qualified archaeologist (and, if necessary, a culturally affiliated Native American) to monitor these activities. In the event of an unexpected archaeological discovery during grading, the on-site construction supervisor shall redirect work away from the location of the archaeological find. A qualified archaeologist shall oversee the evaluation and recovery of archaeological resources, in accordance with the procedures listed below, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the archaeological find. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring. If an archaeological discovery is determined to be significant, the archaeologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:

- i. Perform appropriate technical analyses;
- ii. File any resulting reports with South Coast Information Center; and
- iii. Provide the recovered materials to an appropriate repository for curation, in consultation with a culturally affiliated Native American.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.6 ENERGY

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X	

Discussion

Energy thresholds were added in the 2018 CEQA Guidelines Update, which came into effect on December 28, 2018. As such, an Energy section was not specifically included in the LRDP EIR. However, many energy-related issues are discussed in Section 5.0 of the LRDP EIR, which also addresses climate change and greenhouse gas emissions.

Regulatory Setting

UC Sustainable Practices Policy – Clean Energy Standards

The University of California proposes to reduce greenhouse gas emissions with less energy consumption and transition to clean energy supplies. It proposes to reduce energy use by approximately two percent every year. Campuses and health facilities would add more on-site renewable electricity supplies and energy storage systems to align with Climate Action Plans. By 2025, each campus and health facility would achieve 100 percent clean electricity. Additionally, a minimum of 20 percent of on-site natural gas consumption would transition to biomethane.⁷

Renewable Energy Standards

In 2002, California established its Renewable Portfolio Standard program⁸ with the goal of increasing the annual percentage of renewable energy in the state's electricity mix by the equivalent of at least 1 percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission subsequently accelerated that goal to 2010 for retail sellers of electricity (Public Utilities Code Section 399.15(b)(1)). Then-Governor Schwarzenegger signed Executive Order S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-

⁷ University of California, 2024, Sustainable Practices Policy. <https://policy.ucop.edu/doc/3100155/SustainablePractices>. Accessed April 2026.

⁸ The Renewable Portfolio Standard is a flexible, market-driven policy to ensure that the public benefits of wind, solar, biomass, and geothermal energy continue to be realized as electricity markets become more competitive. The policy ensures that a minimum amount of renewable energy is included in the portfolio of electricity resources serving a state or country.

09, which directs the California Air Resources Board under its Assembly Bill (AB) 32 authority to enact regulations to help the State meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In September 2010, the California Air Resources Board adopted its Renewable Electricity Standard regulations, which require all of the State's load-serving entities to meet this target. In October 2015, then-Governor Brown signed into legislation Senate Bill 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, Senate Bill (SB) 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

2008 California Energy Action Plan

The 2008 Energy Action Plan Update provides a status update to the 2005 Energy Action Plan II, which is the State of California's principal energy planning and policy document. The plan continues the goals of the original Energy Action Plan, describes a coordinated implementation plan for State energy policies, and identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. First-priority actions to address California's increasing energy demands are energy efficiency, demand response (i.e., reduction of customer energy usage during peak periods in order to address system reliability and support the best use of energy infrastructure), and the use of renewable sources of power. If these actions are unable to satisfy the increasing energy and capacity needs, the plan supports clean and efficient fossil-fired generation.

Building Codes

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977 and are updated every three years (Title 24, Part 6, of the California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On August 11, 2021, the CEC adopted the 2022 Title 24 standards (2022 Energy Code). Among other updates like strengthened ventilation standards for gas cooking appliances, the 2022 Energy Code includes updated standards in three major areas:

- New electric heat pump requirements for residential uses, schools, offices, banks, libraries, retail, and grocery stores.
- The promotion of electric-ready requirements for new homes.
- The expansion of solar photovoltaic and battery storage standards.

The 2025 Title 24 standards (2025 Energy Code) went into effect January 2026. The 2025 Energy Code focuses on:

- Expanding the use of heat pumps for space conditioning and water heating.
- Encouraging electric-ready buildings for water heating and cooking.
- Updating photovoltaic and battery storage systems.
- Updating ventilation requirements to improve indoor air quality.

California Green Building Standards Code

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary measures (CALGreen Tier 1 and Tier 2) that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2022 and went into effect January 1, 2023. The most recent update to the CALGreen Code is the 2025 California Green Building Standards Code which took effect January 1, 2026.

2006 Appliance Efficiency Regulations

The California Energy Commission adopted Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) on October 11, 2006. The regulations were approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both Federally regulated appliances and non-Federally regulated appliances. While these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

California Utility Efficiency Programs (Senate Bill 1037 and Assembly Bill 2021)

SB 1037 and AB 2021 require electric utilities to meet their resource needs first with energy efficiency. California Utility Efficiency Programs have also set new targets for statewide annual energy demand reductions.

4.6a Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

Construction

The energy consumption associated with Project construction includes primarily diesel fuel consumption from on-road hauling trips and off-road construction diesel equipment, and gasoline consumption from on-road worker commute and vendor trips. As a conservative assumption, temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers, and heating, ventilation, and air conditioning) would be powered by a generator. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of construction activities. The majority of the energy used during construction would be from petroleum. This analysis relies on the construction equipment list and operational characteristics, as provided in the CalEEMod outputs; see **Appendix A**. The Project’s construction energy consumption is shown in **Table 14: Project Energy Consumption During Construction**.

Table 14: Project Energy Consumption During Construction

Source	Total Construction Energy ⁴	Orange County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	Megawatt Hours (GWh)		
Water Consumption ¹	0.0019	19,225	<0.0001%
Diesel Use	Gallons		
On-Road Construction Trips ²	51,322	136,337,459	0.0376%
Off-Road Construction Equipment ³	78,355		0.0575%
Construction Diesel Total	129,677	136,337,459	0.0951%
Gasoline	Gallons		
On-Road Construction Trips ²	138,155	1,088,796,204	0.0127%
1. Construction water use based on acres disturbed per day per construction sequencing and estimated water use per acre. 2. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod and fleet-average fuel consumption in gallons per mile from EMFAC2021 in Orange County for construction year 2026. 3. Construction fuel use was calculated based on CalEEMod emissions outputs and conversion ratios from the Climate Registry. 4. Total Construction Energy is the combined energy usage over approximately 22 months of construction. Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC: Emission Factor Model 2021; Sources: Refer to Energy Calculations in Appendix A .			

In total, Project construction would consume approximately 0.0019 gigawatt hours (GWh) of electricity, 129,677 gallons of diesel and 138,155 gallons of gasoline. Water for Project construction would represent less than 0.0001 percent of the County's water consumption. The Project's fuel from the entire construction period would increase fuel use in the County by approximately 0.0951 percent for diesel and 0.0127 percent for gasoline.

There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest U.S. EPA and CARB engine emissions standards (i.e., Tier 4). These engines use highly efficient combustion engines to minimize unnecessary fuel consumption.

The CEQA Guideline Appendix G and Appendix F criteria requires the Project's effects on local and regional energy supplies and on the requirements for additional capacity to be addressed.⁹ A 0.1078 percent increase in construction fuel demand is not anticipated to trigger the need for additional capacity. Fuel consumption is based on a conservative construction phasing and conservative estimates for annual construction fuel consumption. Longer phases would result in lower construction intensity and a lower annual fuel consumption, resulting in lower annual demand on energy supplies. Additionally, use of construction fuel would cease once the Project is fully developed. As such, Project construction would have a nominal effect on the local and regional energy supplies. Therefore, it is expected that Project construction fuel consumption would not be inefficient, wasteful, or unnecessary. The Project would not

⁹ California Code of Regulation Title 14, Division 6, Chapter 3, 2018, *Guidelines for Implementation of the California Environmental Quality Act*.

substantially affect existing energy or fuel supplies, or resources and new capacity would not be required. Impacts would be less than significant in this regard.

Operations

The Project's operational energy consumption would include building electricity, water, and natural gas usage, as well as fuel usage from on-road vehicles. Operational energy consumption is shown in **Table 15: Annual Energy Consumption During Operations**. Project operations would annually consume approximately 4.56 GWh of electricity, zero therms of natural gas, zero gallons of diesel, and 89,301 gallons of gasoline.

Table 15: Annual Energy Consumption During Operations

Source	Project Operational Usage	Orange County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	Megawatt Hour/Year (GWh/year)		
Area ¹	3.99	19,225	0.0208%
Water ¹	0.57		0.0030%
Total Electricity	4.56		0.0238%
Natural Gas Use	Therms/year		
Area ¹	0	561,736,496	0%
Diesel Use	Gallons/Year		
Mobile ²	0	135,357	0%
Gasoline Use	Gallons/Year		
Mobile ²	89,301	1,048,783,960	0.0085%
Notes:			
1. The electricity and natural gas usage are based on project-specific estimates and CalEEMod defaults.			
2. Calculated based on the mobile source fuel use based on vehicle miles traveled (VMT) and fleet-average fuel consumption (in gallons per mile) from EMFAC2021 for operational year 2027.			
Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC2021: California Air Resources Board Emission Factor Model; GWh: Gigawatt-hour			
Source: Energy Calculations in Appendix A .			

In total, Project operations would use approximately 4.56 GWh of electricity, which would be provided to the Project through the UC Clean Power Program to be consistent with the UC Sustainable Practices Policy. Californians used 282,782 GWh of electricity in 2024, of which Orange County used 19,225 GWh. Project operational electricity use would represent approximately 0.0016 percent of current electricity use in the state, and 0.0238 percent of the current electricity use in Orange County. Therefore, there is adequate capacity to meet the Project's anticipated electricity demand.

Regarding natural gas, Orange County consumed 561,736,496 therms of natural gas in 2024. However, UC Sustainable Practices prohibits the use of onsite fossil fuel combustion, including natural gas, for space and water heating.¹⁰ Therefore, the project's operational energy consumption of natural gas would represent zero percent of the natural gas consumption in the County.

In 2028, Californians are anticipated to use approximately 12,919,742,298 gallons of gasoline and approximately 3,132,573,845 gallons of diesel fuel. Orange County annual gasoline fuel use in 2028 is anticipated to be 1,048,783,960 gallons and diesel fuel is anticipated to be 135,357 gallons. Expected

¹⁰ University of California, 2024, *Policy on Sustainable Practices*. Available at <https://policy.ucop.edu/doc/3100155/SustainablePractices>.

Project operational use of gasoline and diesel would represent 0.0007 percent of current gasoline use and zero percent of current diesel use in the State. Project operational use of gasoline and diesel would represent 0.0085 percent of gasoline use and zero percent of diesel use, respectively, in the County.

At minimum, the Project would be required to comply with the 2022 Building Efficiency Standards, which took effect on January 1, 2023, and/or future Building Energy Efficiency Standards depending on when construction permits are issued. Prior to issuance of a building permit, UC Irvine Design & Construction Services (D&CS) review and verify that the Project plans demonstrate compliance with the current version of the Building and Energy Efficiency Standards, which require outperforming the Title 24 standards by 20 percent. Title 24 standards require energy conservation features in new construction (e.g., high-efficiency lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures).

Additionally, the Project would also be required adhere to the provisions of CALGreen, which establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The insulation and design code requirements would minimize wasteful energy consumption. None of the Project energy uses exceed one percent of Orange County use. Therefore, it is expected that Project operational fuel and energy consumption would not be inefficient, wasteful, or unnecessary. Impacts would be less than significant in this regard.

4.6b Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The proposed Project would be constructed to adhere to the UC Sustainable Practices Policy, which implements system-wide building standards to reduce energy use through green building design and clean energy. Although Project construction would increase the amount of energy use on the campus, as discussed in *Section 2.0, Project Description*, the Project would incorporate various sustainable project design features (e.g., water conservation measures, meet or exceed LEED Gold rating, exceed Title 24 by 20 percent, use of energy efficient lighting, use of electricity for all space and water heating, installation of infrastructure for photovoltaics, etc.) in compliance with the UC Sustainable Practices Policy. As noted above, the Project's operational electricity would be provided to the Project through the UC Clean Power Program. Furthermore, the proposed Project would not impede the campus' ability to reduce energy usage as it would achieve a high attainment of energy efficiency in accordance with UC policy. Therefore, in compliance with the UC Sustainable Practices Policy, the proposed Project would not result in inefficient or unnecessary consumption of energy nor would it conflict with a State or local plan for renewable energy or energy efficiency. No mitigation is required.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.7 GEOLOGY AND SOILS

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X	
ii) Strong seismic ground shaking?				X	
iii) Seismic-related ground failure, including liquefaction?				X	
iv) Landslides?					X
b) Result in substantial soil erosion or the loss of topsoil?		X			
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?				X	
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?				X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?					X

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X			

Discussion

Geology and soils and paleontological resources are discussed in Sections 4.5 and 4.4, respectively, of the LRDP EIR.

4.7a *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Less Than Significant Impact. According to the LRDP EIR, the UCI campus is not located in the immediate vicinity of any known active faults based on the Alquist-Priolo Earthquake Fault Zoning Map. However, a locally mapped fault trace, known as the “UCI Campus Fault,” traverses the campus. The UCI Campus Fault is classified as a potentially active fault, and ground surface rupture as a result of an earthquake or seismic event is possible. As shown in LRDP EIR Figure 4.5-1, the UCI Campus Fault traverses the campus from northwest to southeast entering the campus approximately 0.75 miles north of the University Drive and Mesa Road intersection and approximately 1.5 miles southeast of the Anteater Drive and Culver drive intersection. The fault traverses through the Academic Core and East Campus areas adjacent to lands designated for Student Housing. A Restricted Use Zone (RUZ) extending 50 feet beyond both sides of this fault has been established to prevent the construction of new occupied buildings on the fault in case of rupture (LRDP EIR, pages 4.5-8 through 9). The LRDP proposes open space, and parking uses with the RUZ to minimize hazards to campus residents. The LRDP EIR concluded that through RUZ enforcement and routine reviews of all building plans for compliance with the California Building Code (CBC) and the UC Seismic Safety Policy, as well as independent review of structural seismic design of both new construction and remodeling projects, impacts associated with fault ruptures would be less than significant.

According to the California Geologic Survey, the Project sites are not located within an Alquist-Priolo earthquake fault zone.¹¹ Further, as shown in LRDP EIR Figure 4.5-1, the Project sites are not located within the RUZ and are at least 1,000 feet northeast of the UCI campus fault. As such, the Project would not directly or indirectly cause potential substantial adverse effects,

¹¹ California Geologic Survey. (2025). *Earthquake Zones of Required Investigation*. Retrieved from: <https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/>. Accessed March 2025.

including the risk of loss, injury, or death due to rupture of a known earthquake fault. Impacts would be less than significant, and no mitigation is required.

ii) Strong seismic ground shaking?

Less Than Significant Impact. The entire campus, like most of southern California, is located in a seismically active area where strong ground shaking could occur during movements along any one of several faults in the region. An earthquake of magnitude 7.5 on the Richter scale could occur along the Newport-Inglewood Fault, the nearest major fault located approximately 4.5 miles southwest of the campus. Earthquakes along the San Andreas Fault, approximately 35 miles northeast of the campus could generate an 8.0 magnitude level of energy, and movement along the San Jacinto Fault, approximately 30 miles away, could release ground motion energy estimated at 7.5 on the Richter scale (LRDP EIR, page 4.5-2). An earthquake along these or any other of a number of local or regional faults could generate strong ground motions within the 2007 LRDP that could dislodge objects from walls, ceilings, and shelves or even damage and destroy buildings and other structures, and people within the 2007 LRDP could be exposed to these hazards. To minimize the potential effects of ground shaking, 2007 LRDP grading, foundation, and building structure elements would be designed to meet or exceed the CBC seismic safety standards. Further, the LRDP EIR notes UCI has adopted the following programs and procedures to minimize potential ground shaking hazards:

- Reviewing and approving all draft building plans for compliance with the CBC, which includes specific structural seismic safety provisions;
- Upgrading or replacing existing buildings not adequately prepared to withstand seismic hazards;
- Complying with the University of California Seismic Safety Policy, which requires anchorage for seismic resistance of nonstructural building elements such as furnishings, fixtures, material storage facilities, and utilities that could create a hazard if dislodged during an earthquake; and
- Incorporating seismic related emergency procedures into departmental emergency response plans.

According to the LRDP EIR, all of these programs and procedures would continue to be implemented as new facilities are developed on campus under the 2007 LRDP and would reduce the hazards from seismic shaking by preparing faculty, staff, and students for emergencies. As such, the LRDP EIR concluded that impacts associated with ground shaking would be less than significant.

The Project sites would likely experience strong seismic ground shaking during the project's lifetime as expected for the southern California region. Nonetheless, the Project would comply with the UCI programs and procedures as discussed above to minimize potential ground shaking hazards. Further, a detailed Project site-specific geotechnical investigation would be conducted by a licensed Professional Geologist during each Project site's design phase, and any recommendations intended to reduce potential ground shaking hazards within the site-specific

geotechnical investigation would be required to be implemented in accordance with the CBC. Upon compliance with existing seismic design requirements of the CBC and other requirements imposed by UCI, the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death due to strong seismic ground shaking. Impacts would be less than significant, and no mitigation is required.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is a response to severe ground shaking that can occur in loose soils and near surface ground water. As a response to seismically induced ground shaking, this transformation from solid state to quicksand can cause structures supported on the soils to tilt or settle as the supporting capabilities of the soils diminish. Water saturated clay-free sediments generally are expected to have a high susceptibility to liquefaction. Lateral spreading is limited displacement ground failure, often associated with liquefaction. Lateral spreading is typically exemplified by the formation of vertical cracks on the surface of liquefied soils and usually takes place on gently sloping ground or level ground with nearby free surface such as a drainage or stream channel. According to the LRDP EIR, the majority of soils on the UCI campus are terraced deposits. Therefore, it is unlikely that these soils would be subject to liquefaction due to the denseness of the material and the depth to groundwater. The LRDP EIR concluded compliance with the CBC and implementation of recommendations in a site-specific geotechnical investigation would reduce hazards associated with liquefaction and impacts would be less than significant.

According to the California Geological Survey, the Project sites are not located in a liquefaction zone.¹² Nevertheless, the Project would be required to comply with the CBC, UCI programs and procedures as outlined in Response 5.7(a)(2), and any recommendations intended to minimize liquefaction hazards, as outlined in a detailed site-specific geotechnical investigation. Through compliance with the above-mentioned requirements, the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death due to seismic-related ground failure including liquefaction. Impacts would be less than significant, and no mitigation is required.

iv) Landslides?

No Impact. Earthquake-induced landslides on steep slopes occur in either bedrock or soils and can result in undermining of buildings, severe foundation damage, and collapse. Although earthquake activity does induce some landsliding, most slides occur from the weight of water-saturated soil and rock exceeding the shear strength of the underlying material. According to the LRDP EIR, the majority of the campus is characterized as gentle sloping to flat terrain with the exception of South Campus. However, according to the LRDP EIR, a geotechnical evaluation conducted for the undeveloped area of the South Campus indicated slopes on the South Campus are not located in zones for potential earthquake-induced landslides. Additionally, the

¹² Ibid.

LRDP EIR concluded compliance with the CBC and the UC Policy on Seismic Safety would reduce any potential hazards associated with landslides and impacts to be less than significant.

According to the California Geological Survey, the Project sites are not located within a landslide zone.¹³ Further, as discussed in *Section 2.0, Project Description*, the Project sites are not located in an area with steep slopes where potential for seismically induced landsliding to occur. As such, the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death due to landslides. No impact would occur.

4.7b Result in substantial soil erosion or the loss of topsoil?

Project Impact Adequately Addressed in LRDP EIR. Erosion can occur as a result of, and can be accelerated by, site preparation activities associated with development. Vegetation removal in landscaped (pervious) areas could reduce soil cohesion, as well as the buffer provided by vegetation from wind, water, and surface disturbance, which could render the exposed soils more susceptible to erosive forces. Additionally, excavation or grading may also result in erosion, irrespective of whether hardscape previously existed at the construction site, given bare soils would be exposed and could be eroded by wind or water. The LRDP EIR notes earth-disturbing activities associated with 2007 LRDP construction would be temporary and erosion effects would depend largely on the areas disturbed, the quantity of disturbance, and the length of time soils are subject to conditions that would be affected by erosion processes. The LRDP EIR noted that all construction activities associated with buildout would be required to comply with; CBC Chapter 29, which regulates excavation activities and the construction of foundations and retaining walls, CBC Chapter 70, which regulates grading activities, including drainage and erosion control, SCAQMD Rule 403 (Fugitive Dust) which outlines dust abatement measures, and National Pollutant Discharge Elimination System (NPDES) general permit for construction activities, including preparation of an erosion control plan and implementation of sedimentation control Best Management Practices. The LRDP EIR concluded that compliance with the established regulatory framework would ensure substantial erosion or topsoil loss would not occur during construction activities and impacts would be less than significant.

Erosion can also occur in connection with increases in stormwater runoff typically associated with increased impermeable surfaces. The LRDP EIR concluded that with incorporation of LRDP Mitigation Measure Hyd-1A, which would reduce stormwater runoff velocities to pre-existing conditions, and other measures, such as LRDP MMs Hyd-1B, Hyd-2A, and Hyd-2B, which protect slopes and channels, such as energy dissipaters, vegetation, and slope/channel stabilizers, the LRDP's increase in impermeable surfaces would not result in substantial erosion during operations. The LRDP concluded a less than significant impact with mitigation in this regard.

Project construction would include excavation and grading which could result in erosion, irrespective of whether hardscape previously existed at either site, given bare soils would be exposed and could be eroded by wind or water. Earth-disturbing activities associated with Project construction would be temporary and erosion effects would depend largely on the areas disturbed, the quantity of disturbance, and the length of time soils are subject to conditions that would be affected by erosion processes. However, increased erosion due to vegetation removal and earth-disturbing activities could still occur. As identified above, Project construction would be required to comply with applicable regulatory measures

¹³ Ibid.

including CBC Chapter 29, CBC Chapter 70, SCAQMD Rule 403 (Fugitive Dust), and the NPDES general permit. Therefore, following compliance with the applicable regulatory framework, Project construction activities would not result in substantial erosion or topsoil loss and impacts would be less than significant.

As discussed above under *Section 4.10, Hydrology and Water Quality*, Project construction would result in short-term soil-disturbing activities that could lead to increased runoff. The Project would be required to comply with regulations of UCI's MS4 Permit, as well as the Project's SWPPP, which would identify required BMPs to be incorporated into the Project's design and operation to ensure that near-term construction activities and long-term post-development activities of the proposed Project would not result in substantial amounts of polluted runoff.

As both Project sites are currently developed, Project implementation is not anticipated to result in a substantial increase of impervious surfaces that could contribute to increased stormwater runoff. As discussed in *Section 4.10, Hydrology and Water Quality*, each site's storm drain systems would be sized and designed to ensure that off-site flows are conveyed through the respective site and flows originating from each site are discharged at a volume and rate that can be accommodated by existing and planned downstream storm drain facilities. In addition, portions of the Project sites would be constructed with low impact development (LID) features, such as the bioretention basins and landscaped areas to retain stormwater flows from the Project sites and improve infiltration before being released and conveyed to an off-site storm drainage system. Further, potential impacts related to stormwater capacity or polluted runoff during construction and operation would be further reduced with implementation of LRDP EIR Mitigation Measures Hyd-1A, Hyd-2A, and Hyd-2B. LRDP EIR Mitigation Measure Hyd-1A would require the preparation of a drainage study consistent with UCI's Storm Water Management Program. LRDP EIR Mitigation Measure Hyd-2A would require the preparation of an erosion control plan. LRDP EIR Mitigation Measure Hyd-2B would require implementation of design features addressing storm water management. With implementation of LRDP EIR Mitigation Measures, Project operations would not result in substantial soil erosion or loss of topsoil; therefore, impacts would be less than significant.

4.7c Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. As discussed in the LRDP EIR, loose or compressible soils that are unstable or with the potential to become unstable resulting in landslide, lateral spreading, subsidence, liquefaction, or collapse were not identified in the East Campus. According to the LRDP EIR, geotechnical investigations that address the potential for liquefaction, lateral spreading, and other types of ground failure are routinely performed for applicable projects. Mandatory compliance with the CBC and implementation of recommendations in a site-specific geotechnical investigation would remove such soils and reduce hazards to people or structures associated with unstable soils to less than significant levels. Therefore, the LRDP EIR concluded that impacts associated with compressible soils (i.e., landslides, lateral spreading, subsidence, liquefaction, and collapse) are considered to be less than significant, and no mitigation is required.

Refer to Responses 4.7(a)(3) and 4.7(a)(4) for a discussion concerning lateral spreading, liquefaction, and landslides, respectively.

Subsidence is the downward settling of surface materials caused by natural or artificial removal of underlying support. Land subsidence would occur from one or more of several causes including withdrawal of fluids (oil, gas, or water) or the application of water to moisture-deficient unconsolidated deposits. Subsidence is a relatively slow process that may continue for several decades. As discussed in the LRDP EIR, no areas of subsidence have occurred within the campus. As discussed, geotechnical investigations that address the potential for ground failure are routinely performed for applicable projects. The LRDP EIR concluded compliance with the CBC and implementation of recommendations in a site-specific geotechnical investigation would reduce hazards associated with subsidence or collapse, and a less than significant impact would occur.

Site A is currently developed and is occupied by a vacant office building and Parking Lot AHA. Site B is currently developed and is occupied by Parking Lot 1C, which includes UCI staff commuter parking spaces, UCIPD fleet vehicle parking spaces, and an electric vehicle ChargePoint Charging Station. The proposed Project would demolish and remove the existing onsite uses and construct student housing. In order to minimize potential concerns regarding on-site soils, a detailed site-specific geotechnical investigation would be conducted by a licensed Professional Geologist during the Project design phase. Any recommendations intended to minimize any impacts regarding unstable soils (i.e., on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse) within the site-specific geotechnical investigation would be required to be implemented in accordance with the CBC. Therefore, the Project would not be located on a geologic unit or soil that is unstable, or that would become unstable, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Impacts would be less than significant.

4.7d 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 Impact. According to the LRDP EIR, expansive topsoil is prevalent on the UCI campus and is generally a dark brown sandy clay, clayey sand, or lean clay, which can be detrimental to foundations, concrete slabs, flatwork, and pavement. Topsoil throughout the campus is highly expansive, ranging from eight to 12 percent swell with an underlying material generally consisting of non-expansive to moderately expansive terrace deposits with a swell ranging from zero to eight percent. The CBC includes provisions for construction on expansive soils. Proper fill selection, moisture control, and compaction during construction can prevent these soils from causing significant damage. Expansive soils can be treated by removal (typically the upper three feet below finish grade) and replacement with low expansive soils, lime-treatment, and/or moisture conditioning. The LRDP EIR concluded that with adherence to the CBC and implementation of the recommendations in the detailed project-specific geotechnical investigation conducted during the design phase, impacts due to expansive soils would be less than significant and no mitigation is required.

Site A is currently developed and is occupied by a vacant office building and Parking Lot AHA. Site B is currently developed and is occupied by Parking Lot 1C, which includes UCI staff commuter parking spaces, UCIPD fleet vehicle parking spaces, and an electric vehicle ChargePoint Charging Station. The proposed Project would demolish and remove the existing onsite uses and construct student housing. In order to minimize potential concerns regarding expansive soils, a detailed site-specific geotechnical investigation would be conducted by a licensed Professional Geologist during the Project design phase. Any recommendations intended to minimize any impacts regarding unstable soils (i.e., on- or off-site

landslides, lateral spreading, subsidence, liquefaction or collapse) within the site-specific geotechnical investigation would be required to be implemented in accordance with the CBC. Therefore, the Project would not be located on expansive soil that could pose substantial direct or indirect risks to life or property. Impacts would be less than significant.

4.7e Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?

No Impact. This threshold was added in a subsequent CEQA Guidelines update. As such, this threshold was not included in the LRDP EIR.

All wastewater generated by the proposed Project would be conveyed via local sewers directly into the existing public sanitary sewer system maintained by the UCI. The proposed Project would not include a septic tank or alternative waste disposal system and therefore no impact would occur.

4.7f Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Project Impact Adequately Addressed in LRDP EIR. As discussed in the LRDP EIR, UCI campus is underlain by various geologic units with varying potentials to contain fossils, with the majority of the campus considered to have high sensitivity for paleontological resources and the remainder of the campus considered to have low to moderate sensitivity. Therefore, development that occurs from the implementation of the 2007 LRDP that involves earthwork could significantly impact paleontological resources, and LRDP EIR Mitigation Measures Cul-4A, Cul-4B, Cul-4C would be required for any future Project on the UCI campus involving the excavation of sedimentary rock material other than topsoil. The LRDP EIR concluded that with implementation of LRDP EIR Mitigation Measures Cul-4A, Cul-4B, Cul-4C, impacts would be less than significant.

Site A is currently developed and is occupied by a vacant office building and Parking Lot AHA. Site B is currently developed and is occupied by Parking Lot 1C, which includes UCI staff commuter parking spaces, UCIPD fleet vehicle parking spaces, and an electric vehicle ChargePoint Charging Station. The proposed Project would demolish and remove the existing onsite uses and construct student housing. It is unlikely that paleontological resources are present on both Project sites given construction of the existing uses required site disturbance and excavation. However, Project construction would include excavation and grading which could unearth an unknown paleontological resource. As depicted in LRDP EIR Figure 4.4-1: Paleontological Sensitivity Zones, the Project sites are both considered to have low to moderate sensitivity for paleontological resources. Nevertheless, there is the potential for Project construction to result in an adverse change in the significance of a previously unidentified paleontological resource.

Therefore, the Project would implement LRDP EIR Mitigation Measures Cul-4A, Cul-4B, and Cul-4C, which require a qualified paleontologist to monitor land grading or excavation activities and outlines measures to be taken if a paleontological resource is discovered. With implementation of LRDP EIR Mitigation Measures Cul-4A, Cul-4B, Cul-4C, the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5 and impacts would be less than significant.

LRDP EIR Mitigation Measures

Refer to *Section 4.10, Hydrology and Water Quality*, for LRDP EIR MMs Hyd-1A, Hyd-2A and Hyd-2B.

Cul-4A: Prior to grading or excavation for future projects that implement the 2007 LRDP and would excavate sedimentary rock material other than topsoil, UCI shall retain a qualified paleontologist to monitor these activities. In the event fossils are discovered during grading, the on-site construction supervisor shall be notified and shall redirect work away from the location of the discovery. The recommendations of the paleontologist shall be implemented with respect to the evaluation and recovery of fossils, in accordance with mitigation measures Cul-4B and Cul-4C, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the fossil discovery. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring.

Cul-4B: If the fossils are determined to be significant, then mitigation measure Cul-4C shall be implemented.

Cul-4C: For significant fossils as determined by mitigation measure Cul-4B, the paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:

- i. The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (which may include UCI);
- ii. The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and
- iii. The paleontologist shall ensure that curation of fossils are completed in consultation with UCI. A letter of acceptance from the curation institution shall be submitted to UCI.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.8 GREENHOUSE GAS EMISSIONS

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X	

Discussion

Greenhouse gas (GHG) analysis was incorporated into the CEQA Statute and Guidelines in 2010, which became effective on March 18, 2010. Accordingly, GHG issues are discussed in Section 5.3 (Other CEQA Considerations) of the LRDP EIR. The 2007 LRDP EIR noted that LRDP buildout would incorporate principles of energy and efficiency from State Of California, UC, and UCI reduction strategies. While no specific GHG emission thresholds had been adopted at that time, the EIR concluded that:

Implementation of the 2007 LRDP would result in increased greenhouse gas emissions associated with campus construction and operation. However, the campus would institute emission reduction strategies through continuation of existing programs that reduce greenhouse gas emissions, compliance with the UC Policy on Sustainable Practices, and compliance with existing and future emission reduction strategies set forth by the State of California. Together, these emission reduction practices would substantially lessen UCI's contribution to global climate change.¹⁴

The 2007 LRDP acknowledges potential contributions to global climate change, emphasizing the significance of environmental issues and anticipating future State regulatory action. However, the program-level analysis did not establish specific thresholds for evaluating GHG emissions from individual projects. For the proposed Project, the South Coast Air Quality Management Districts' (SCAQMD) proposed 3,000 MTCO₂e annual non-industrial screening threshold is used as the significance threshold, in addition to the qualitative thresholds of significance set forth in CEQA Guidelines Appendix G Section VII. A Project-specific Greenhouse Gas Assessment was prepared Kimley-Horn and Associates and incorporated into the analysis below. See **Appendix A** of this IS/MND for modeling data used in the analysis.

¹⁴ University of California Irvine, November 2027, *UCI 2007 Long Range Development Plan Final EIR*, page 5-12.

Regulatory Setting

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act (EISA) of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Additional provisions of the Energy Independence and Security Act (EISA) address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

U.S. Environmental Protection Agency Endangerment Finding. The U.S. Environmental Protection Agency’s (U.S. EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court’s ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs – carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) – constitute a threat to public health and welfare. Thus, it is the Supreme Court’s interpretation of the existing FCAA and the U.S. EPA’s assessment of the scientific evidence that form the basis for the EPA’s regulatory actions. In February 2026, the U.S. EPA revoked the Endangerment Finding. This action removes the legal and scientific foundation that required the federal government to regulate GHG emissions under the Clean Air Act. The EPA’s action has been challenged in court and this litigation is pending at this time.

State

California Air Resources Board. The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California’s contribution to GHG emissions have raised awareness

about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO₂e in the world and produced 440 million gross metric tons of CO₂e in 2015. In the state, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major legislation related to GHG emissions reduction.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

CARB Scoping Plan. Adopted December 15, 2022, CARB's *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with recommendations to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan is not regulatory, is not exhaustive, and does not include everything local governments can implement to support the State's climate goals. It focuses primarily on climate action plans (CAPs) and local authority over new residential development. It includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. CARB specifically states that Section 3 of Appendix D, which

discusses land use plans and development projects, does not address land uses other than residential and mixed-use residential, such as industrial. However, CARB plans to explore new approaches for other land use types in the future.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit). Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

SB 100 and SB 1020 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases). Signed into law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. SB 1020 provides additional goals for the path to the 2045 goal of 100 percent clean electricity retail sales. It creates a target of 90 percent clean electricity retail sales by 2035 and 95 percent clean electricity retail sales by 2040.

AB 1279 (The California Climate Crisis Act). AB 1279 establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO₂ removal solutions and carbon capture, utilization, and storage technologies.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat, even with rapid population growth.

Title 20 Appliance Efficiency Regulations. The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24 Building Energy Efficiency Standards. California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) was first adopted 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 efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The CEC adopted the 2022 Energy Code on August 11, 2021, which was subsequently approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption across California. For example, the 2022 Title 24 standards will require efficient electric heat pumps, establishes electric-ready requirements

for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards.

Title 24 California Green Building Standards Code. The California Green Building Standards Code (CCR Title 24, Part 11) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect on January 1, 2023 (2022 CALGreen). The 2022 CALGreen standards continue to improve upon the existing standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

Regional and Local

South Coast Air Quality Management District Thresholds. The SCAQMD formed a GHG California Environmental Quality Act (CEQA) Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research, CARB, the Attorney General's Office, a variety of city and county planning departments in the SCAB, various utilities such as sanitation and power companies throughout the SCAB, industry groups, and environmental and professional organizations. The Working Group has proposed a tiered approach to evaluating GHG emissions for development projects where SCAQMD is not the lead agency, wherein projects are evaluated sequentially through a series of "tiers" to determine whether the project is likely to result in a potentially significant impact due to GHG emissions.

With the tiered approach, a project is compared against the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. The SCAQMD has adopted a threshold of 10,000 metric tons of CO₂e (MTCO₂e) per year for industrial projects and a 3,000 MTCO₂e threshold was proposed for non-industrial projects but has not been adopted. During Working Group Meeting #7 it was explained that this threshold was derived using a 90 percent capture rate of a large sampling of industrial facilities. During Meeting #8, the Working Group defined industrial uses as production, manufacturing, and fabrication activities or storage and distribution (e.g., warehouse, transfer facility, etc.). The Working Group indicated that the 10,000 MTCO₂e per year threshold applies to both emissions from construction and operational phases plus indirect emissions (electricity, water use, etc.). The SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three options. Under the Tier 4 first option, SCAQMD initially outlined that a project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. However, the Working Group did not provide a recommendation for this approach. The Working Group folded the Tier 4 second option into the third option. Under the Tier 4 third option, a project would be excluded if it was below an efficiency-based threshold of 4.8 MTCO₂e per service population per year. Tier 5 would exclude projects that implement off-site mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

Tier 3 Screening Thresholds. When the tiered approach is applied to a proposed project and the project is found not to comply with Tier 1 or Tier 2, a project's emissions are compared against a screening threshold, as described above, for Tier 3. The screening threshold formally adopted by SCAQMD is an "interim" screening threshold for stationary source industrial projects where the SCAQMD is the lead agency under CEQA. The threshold was termed "interim" because the SCAQMD anticipated that CARB would adopt a statewide significance threshold that would inform and provide guidance to SCAQMD in its adoption of a final threshold. However, no statewide threshold was ever adopted and the interim threshold remains in effect.

For projects for which SCAQMD is not the lead agency, no screening thresholds have been formally adopted. However, the SCAQMD Working Group recommended a threshold of 10,000 MTCO₂e/year for industrial projects and 3,000 MTCO₂e/year for residential and commercial projects. SCAQMD determined that these thresholds would "capture" 90 percent of GHG emissions from these sectors, "capture" meaning that 90 percent of total emissions from all new projects would be subject to some type of CEQA analysis (i.e., found potentially significant).¹⁵

Southern California Association of Governments. On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy [2020 Connect SoCal or RTP/SCS]). The Connect SoCal charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. Connect SoCal is a long-range vision plan that balances future mobility and housing needs with economic, environmental, and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by State law to lower regional GHG emissions. On April 4, 2024, SCAG's Regional Council adopted Connect SoCal (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy [2024 Connect SoCal]), and was approved by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) on May 10, 2024.

¹⁵ SCAQMD, December 5, 2008, "Staff Report: Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans," October 2008, Attachment E: "Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold," p. 3-2.

University of California Sustainable Practices Policy. Since certification of the 2007 LRDP, the UC Policy on Sustainable Practices has been updated to reflect current practices and standards. The UC Sustainable Practices Policy establishes goals in 13 areas including: green building, clean energy, climate action, transportation, sustainable operations, zero waste, procurement, foodservice, water, health care, performance assessment, health and well-being, and diversity, equity, inclusion and justice.

The UC updated the Climate Action section of the Sustainable Practices Policy to shift from reliance on carbon offsets to focus on decarbonization. The UC Policy on Sustainable Practices Policy establishes a Climate Action framework to reduce operational GHG emissions while supporting the State's climate goals and addressing impacts on vulnerable communities. The policy proposes to reduce total emissions, consisting of Scopes 1, 2, and 3, by a minimum 90 percent by 2045 to a 2019 baseline year. Beyond 2045, remaining emissions after 90 percent reduction will be reversed with carbon removal. Scope 1 emissions emphasize GHG reduction targets by 2030, 2035, and 2040 using 2019 as baseline year. Scope 2 emissions focus on the purchase of 100 percent clean electricity starting in 2025. Scope 3 emissions target meeting the State's goals and policies to attain climate neutrality by 2045 or earlier. Additionally, each Campus is required to implement an updated climate action plan (CAP) that develops climate solutions and evaluates climate justice. Also, the University will emphasize decreasing direct emissions of scopes 1, 2, and 3.

Second Nature Carbon Commitment. UC is a signatory of Second Nature's Carbon Commitment, formerly known as the American College and University President's Climate Commitment (ACUPCC). This commitment focuses on reduction of GHG emissions with the goal of reaching carbon neutrality as soon as possible.

Energy Services Unit. The UC Energy Services Unit (ESU) has established projects and programs to provide utility-scale supply of renewable electricity and biomethane to support UC's sustainability goals. These efforts include investment in the development of 80 megawatts (MW) of solar energy supply by 2020 to provide long term sources of renewable power and development of 17 million therms of biomethane to provide renewable fuel to partially replace natural gas combustion on campuses. As a result, the ESU is greening the power supply to UC campuses with a goal of 100 percent GHG-free power supply to UC campuses that are served by the ESU under direct access.

UC Irvine Climate Action Plan. The UCI Climate Action Plan (CAP) was initially prepared in 2007 (updated in 2016) and provides an array of climate action protection strategies for projects to reduce UCI GHG emissions. The CAP provides guidance for UCI to achieve its institutional climate protection commitments in support of UC sustainability policy and campus sustainability goals. These commitments include reduction of GHG emissions to 1990 levels by the year 2020 (a reduction of approximately 49 percent from projected emissions), climate neutrality by the year 2025 (for on-site combustion of fossil fuels and purchased electricity), and climate neutrality by the year 2050 (for UCI commuters and university-funded air travel).

UCI is in the process of updating the Climate Action and Adaptation Plan (CAAP), which addresses both GHG reduction and climate resilience. The resiliency component measures climate hazards affecting the campus and UCI Health through a Climate Impact Assessment and evaluates adaptation strategies informed by stakeholder engagement conducted in the last two to three years. In addition, the campus will continue to evaluate emerging technologies, including nuclear and hydrogen, electrify select campus

operations, and implement resilience measures, with campuswide decarbonization targeted for 2045 and a stretch goal of 2040.

Environmental Setting

Certain gases in the earth's atmosphere classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are CO₂, CH₄, and N₂O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), HFCs, PFCs, SF₆, and nitrogen trifluoride (NF₃); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere.¹⁶ **Table 16: Description of Greenhouse Gases** describes the primary GHGs attributed to global climate change, including their physical properties.

¹⁶ Intergovernmental Panel on Climate Change, 2013, Carbon and Other Biogeochemical Cycles. In: *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf.

Table 16: Description of Greenhouse Gases

Greenhouse Gas	Description
CO ₂	CO ₂ is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO ₂ is variable because it is readily exchanged in the atmosphere. CO ₂ is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
N ₂ O	N ₂ O is largely attributable to agricultural practices and soil management. Primary human-related sources of N ₂ O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N ₂ O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. The Global Warming Potential of N ₂ O is 298.
CH ₄	CH ₄ , a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH ₄ include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH ₄ is about 12 years and the Global Warming Potential is 25.
HFCs	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
PFCs	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
CFCs	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
SF ₆	SF ₆ is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF ₆ is 23,900.
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.

Greenhouse Gas	Description
NF ₃	NF ₃ was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.
Source: Compiled from U.S. EPA, 2024, <i>Overview of Greenhouse Gases</i> (https://www.epa.gov/ghgemissions/overview-greenhouse-gases), accessed January 2025; U.S. EPA, 2024, <i>Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016</i> (https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks), accessed January 2025; Intergovernmental Panel on Climate Change, 2007, <i>Climate Change 2007: The Physical Science Basis</i> ; National Research Council, 2010, <i>Advancing the Science of Climate Change</i> ; U.S. EPA, April 2010, <i>Methane and Nitrous Oxide Emission from Natural Sources</i> .	

4.8a Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. The proposed Project would result in direct GHG emissions from construction-related activities. The duration of construction activities associated with the proposed Project are estimated to last up to 22 months. The Project is anticipated to import approximately 1,420 cubic yards of soil to Site A and 3,900 cubic yards of soil to Site B. Construction-related emissions were calculated using CalEEMod, which is designed to model emissions for land use development projects, based on typical construction requirements. The approximate daily GHG emissions generated by construction equipment utilized to build the proposed Project are included in **Table 17: Construction-Related Greenhouse Gas Emissions**. As shown in **Table 17**, Project total construction-related activities would generate approximately 2,530 MTCO₂e of GHG emissions over the course of construction. Construction GHG emissions are typically summed and amortized over a 30-year period, then added to the operational emissions¹⁷. The amortized Project emissions would be 84 MTCO₂e per year. Once construction is complete, the generation of construction-related GHG emissions would cease.

Table 17: Construction-Related Greenhouse Gas Emissions

Category	MTCO ₂ e per Year
Site A	
Year 1 (2026)	67
Year 2 (2027)	748
Year 3 (2028)	509
Site B	
Year 1 (2026)	74
Year 2 (2027)	685
Year 3 (2028)	448
Total Construction Emissions	2,530
30-Year Amortized Construction	84
MTCO ₂ e = metric tons of carbon dioxide equivalent. 1. Due to rounding, total MTCO ₂ e may be marginally different from CalEEMod outputs. Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.	

¹⁷ The 30-year amortization period is based on the South Coast Air Quality Management District, August 26, 2009, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*.

Operational Greenhouse Gas Emissions

Operational emissions would occur over the proposed Project's lifetime. The Project's operational GHG emissions would result from direct emissions such as Project-generated vehicular traffic and operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water to the Project site and wastewater from the Project site, the emissions associated with solid waste generated from the Project site, and any fugitive refrigerants from air conditioning or refrigerators. The Project's total operational GHG emissions are summarized in **Table 18: Project Greenhouse Gas Emissions**. As shown in **Table 18**, Project operational GHG emissions, combined with construction-related GHG emissions, would generate approximately 1,725 MTCO₂e annually. The proposed Project would not exceed the SCAQMD GHG threshold of 3,000 MTCO₂e per year. Thus, Project-related GHG emissions would be less than significant, and no mitigation is required.

Table 18: Project Greenhouse Gas Emissions

Emissions Source	MTCO ₂ e per Year ¹		
	Site A	Site B	Total Emissions (Site A + Site B)
Construction Amortized Over 30 Years	44	40	84
Area Source	9	10	19
Energy – Electricity ²	314	316	631
Mobile	305	330	635
Waste	122	132	254
Water	49	52	101
Total	-	-	1,725
<i>SCAQMD Project Threshold</i>	-	-	<i>3,000</i>
Exceeds Threshold?	-	-	No
MTCO ₂ e = metric tons of carbon dioxide equivalent. 1. Due to rounding, total MTCO ₂ e may be marginally different from CalEEMod outputs. 2. The Project would not use on-site fossil fuel combustion, including natural gas, in compliance with the UC Sustainable Practices Policy. Source: CalEEMod version 2022.1. Refer to Appendix A for model outputs.			

4.8b *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant Impact. As discussed above, UC's Policy on Sustainable Practices establishes goals and policies to reduce GHG emissions from various sources at the UCI campus. In addition, the CAP in cooperation with AB 32 has guided an array of climate action protection strategies and projects to reduce UCI GHG emissions. The UC Sustainable Practices Policy is updated periodically. The most recent update of the Policy became effective in June 2024. The updated Sustainable Practices Policy revised the Clean Energy section to indicate that the UC Clean Power Program is already achieving the clean electricity goals and to update the goals and timelines around centrally purchased biomethane to reflect current plans. It also replaced the former goal of achieving carbon neutrality for Scope 1 and 2 emissions by 2025 with a goal that is aligned with State goals in the most recent 2022 CARB Scoping Plan of achieving carbon

neutrality for all scopes of emissions by 2045. The updated Sustainable Practices Policy reflects the UC's desire to prioritize direct, total emissions reductions to support achievement of the State's updated reduction targets established in AB 1279, signed into law in September 2022, that requires that statewide anthropogenic GHG emissions be reduced to at least 85 percent below 1990 levels. It also sets a new long-term reduction target of 90 percent below 2019 levels by 2045 for all scopes, which is more aggressive than the reduction targets established in AB 1279. After 2045, the 2023 UC Sustainable Practices Policy requires that any residual emissions beyond the 90 percent reduction will be negated by carbon removal to achieve complete carbon neutrality in alignment with the State's goals and the 2022 CARB Scoping Plan.

As part of the update to the UC Sustainable Practices Policy, UC Irvine prepared a decarbonization study that will be used to establish new interim campus GHG emissions reduction targets for 2030, 2035, and 2040. The decarbonization study will specifically address decarbonizing on-site fossil-fuel burning infrastructure. Pursuant to the updated Policy, as noted above, the campus is also working on updating a CAAP which will establish and outline how the campus plans to achieve the GHG emission reduction goals of the updated Policy.

The Proposed Project would support the updated UC Sustainable Practices Policy by outperforming California Building Code energy-efficiency standards (Title 24) by 20 percent, meet or exceed U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) "Gold" standards or equivalent, utilize energy efficient lighting and appliances, reduce outdoor water use by 50 percent, and reduce commuting emissions through sustainable transportation programming. The Project would be designed to achieve LEED Gold certification at a minimum, striving to achieve Platinum certification. The Project would also not use natural gas for space and water heating. Accordingly, the Project would exceed the energy efficiency standards in the 2022 California Building Standards Code by at least 20 percent, and electricity would be provided to the Project through the UC Clean Power Program.

UCI's Sustainable Transportation Program utilizes various Transportation Demand Management (TDM) measures and was created with the goal to reduce the total number of vehicle trips made to the campus by faculty, staff, and students and reduce commute emissions. The Project would not eliminate or reduce any existing TDM measures offered by UCI's Transportation and Distribution Service. Students, faculty, and staff that access the Project would be eligible to utilize the TDM services provided by the UCI Transportation and Distribution Service.

The Project would be constructed within the East Campus, adjacent to existing UCI buildings and facilities, including Puerta del Sol, Verano Place Housing, Early Childhood Education Center, and UCI Parking & Transportation Services building. As the Project is within a developed area of the campus, it would benefit from the surrounding multimodal transportation systems, including sidewalks/walking trails, bicycle infrastructure, municipal bus service, and campus shuttles. The Project would connect to a campus-wide network of bike/pedestrian trail system. Additionally, UCI has replaced its diesel bus fleet with an all-electric fleet, to reduce GHG emissions. The proposed Project would benefit from the implementation of an optimized fleet, which would also serve the Project site.

The Project would not conflict with any of the policy's sustainable practices, including campus-wide clean energy, energy efficiency, and renewable energy, and sustainable transportation. As discussed above, the Project is subject to the practices in the UC Policy on Sustainable Practices and the UCI CAP. The Project

would be required to comply with the GHG reduction efforts outlined in the CAP and all of UCI's sustainability programs, including green building design, renewable energy, and energy efficiency measures, among others, to reduce its carbon footprint.

The LRDP EIR determined that implementation of the 2007 LRDP would increase GHG emissions from construction and operations, particularly from vehicle operations. However, GHG emissions would be less than significant. The analysis above shows that the Project's GHG emissions (1,725 MTCO₂e per year) would be below SCAQMD thresholds (it is noted that the program-level LRDP EIR analysis did not establish specific thresholds for evaluating GHG emissions from individual projects). Additionally, the proposed Project would not conflict with the climate protections goals and measures adopted in the Sustainable Practices Policy and CAP and therefore, would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce GHG emissions, including Title 24, AB 32, and SB 32. Therefore, Project impacts would be less than significant. No new impact relative to GHG emissions or a substantial increase in the severity of a previously identified significant impact evaluated in the 2007 LRDP EIR would occur.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X	
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?				X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?					X
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?					X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X			
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X	

Discussion

Hazards and hazardous material issues are discussed in Section 4.6 of the LRDP EIR.

4.9a Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Environmental exposure to hazardous materials can occur through transportation accidents; environmentally unsound disposal methods; improper handling of hazardous materials or hazardous wastes (particularly by untrained personnel); and/or emergencies, such as explosions or fires. The severity of these potential effects varies by type of activity, concentration and/or type of hazardous materials or wastes, and proximity to sensitive receptors.

As discussed in the LRDP EIR, UCI's transport, use, and disposal of hazardous materials is expected to increase in general proportion to the growth of the campus in accordance with the 2007 LRDP. While the amount and type of hazardous materials may vary over time with changes in disposal, products, research, and additions to hazardous materials lists, the general range and type of hazardous materials used on campus is not expected to substantially change through the duration of the 2007 LRDP implementation. Further, the LRDP EIR noted that UCI contracts with licensed hazardous waste transporters to ensure that all hazardous wastes generated by the campus are transported off campus for treatment or disposal at licensed hazardous waste facilities. Overall, the LRDP EIR concluded that impacts associated with the four general categories of hazardous materials (chemical, radiological, biohazardous, and hazardous materials associated with infrastructure) used at UCI would be less than significant and no mitigation measures were required.

The Project would include excavation, grading, and demolition of the existing onsite uses. Project construction activities would involve the transport, use, and disposal of hazardous materials including fuels, paints, mechanical fluids, and solvents. Transport, use, and disposal of hazardous materials during construction are governed by existing regulations and would not be present in such a quantity or used in a manner that would pose a significant hazard to the public. Further, transport, use, and disposal of these potentially hazardous materials would be temporary and cease upon completion of construction. Therefore, following compliance with the established regulatory framework, Project construction would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a less than significant impact would occur.

The Project proposes student housing which would not involve ongoing or routine use of substantial quantities of hazardous materials during operations. Only small quantities of hazardous materials typical of residential uses would be anticipated including cleaning solvents, fertilizers, pesticides, and other materials used in regular maintenance. With proper use and disposal, which is governed by existing regulations, household maintenance chemicals would not be expected to create a significant hazard to the public or environment. Therefore, following compliance with the established regulatory framework, and given the small quantities of hazards materials typical with residential uses and routine transport, use, or disposal of substantial quantities of hazardous materials would not occur, Project operations would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a less than significant impact would occur.

4.9b 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 Impact. Human exposure to hazardous substance could occur through accidental release. Incidents that result in an accidental release of hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. If not cleaned up immediately and completely, the hazardous substances can migrate into the soil or enter a local stream or channel causing contamination of soil and water. Human exposure of contaminated soil or water can have potential health effects on a variety of factors, including the nature of the contaminant and the degree of exposure.

As discussed in the LRDP EIR, hazardous materials and waste storage on campus must comply with applicable regulations, including suitable containers that are sealed at all times (when not adding or removing waste), and campus policy requires that all hazardous materials shipped on public roads be packaged in compliance with all applicable regulations. Compliance with these regulations minimizes the potential for accidental release of hazardous materials being transported to or from campus. In the event of an accident, UCI has prepared an Emergency Management Plan that addresses the campus community's planned response to various levels of human-made or natural emergency situation, including the release of hazardous materials. Overall, the LRDP EIR concluded that compliance with associated regulations, programs, practices, and procedures would reduce impacts from implementation of the 2007 LRDP to less than significant.

Review of regulatory databases through online search (i.e., SWRCB GeoTracker and DTSC Envirostor) and Environmental Database Review (EDR) were conducted for Project Site A and Site B in April 2025. Online search was inclusive of open and closed cases with the respective state regulatory agencies while the EDR database report compiled documented regulatory records based on a search of various federal, state, tribal, and local environmental databases. Additionally, due to the existing use on Site A, a Phase I Environmental Site Assessment (Phase I ESA) was prepared by Ninyo and Moore in January 2023 and a Phase II Environmental Site Assessment (Phase II ESA) was prepared in March 2026, see **Appendix C** and **Appendix D**, respectively.

Review of the historical documentation was to evaluate the properties for potential historical releases, which could 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. Below details a summary of each property based on a review of the above-mentioned resources:

Project Site A

Project Site A's Phase I ESA identified three Recognized Environmental Conditions (RECs) associated with the following adjoining or adjacent properties:

Ritz Cleaners facility is mapped adjoining Project Site A to the northwest. The potential presence of historical dry-cleaning operations at or adjoining Project Site A is considered a REC. The listing indicated that there was an inactive permit for petroleum solvent dry cleaning equipment. The application date was listed as October 9, 2001. Additional information was not identified to confirm if the dry cleaner was onsite or that this listing is erroneous. Therefore, the Phase I ESA concluded further evaluation was

required. The Phase II ESA did not identify Ritz Clearers as a REC, however the soil vapor sampling completed on Site A, is inclusive of the Ritz Cleaners facility boundary.

The Campus Gas (currently Shell) facility is mapped upgradient and north of Project Site A located at 4601 Campus Drive. The site was listed as a Leaking Underground Storage Tank (LUST) case (T0605900678), with a cleanup status of case closure as of 1/31/2014. According to GeoTracker, contamination was detected in soil samples collected from areas adjacent to the eastern edge of the former gasoline and diesel USTs and to the west of the southern dispenser island in 1988. Quarterly groundwater monitoring occurred since the discovery of contamination in 1988 through the first quarter of 2013. Dissolved Total Petroleum Hydrocarbon – gasoline range (TPHg) concentrations were observed in an off-property well (OSB-2) in concentration of 244 micrograms per liter. The location of this well was immediately adjoining Project Site A in March 2012. Orange County Health Care Agency (OCHCA) issued a closure letter through the Low-Threat Underground Storage Tank Case Closure Policy (LTCP) based on the ongoing remediation and monitoring vents completed 1988 through 2012. The LTCP is designed to aid closure of former LUST cases meeting commercial/industrial standards and operating uses. As such, residual petroleum impacts could remain at the site based LTCP allowance for commercial/industrial sites based on the most recent groundwater concentration at monitoring well OSB-2, which represents a REC. As Project Site A is currently evaluated as a commercial/industrial use, the Project's proposed change from commercial to residential would require evaluation with differing regulatory criteria. Therefore, the Phase I ESA concluded further evaluation was required.

The Campus Cleaner facility is mapped upgradient and north of Project Site A located at 4515 Campus Drive. The site is listed as a Cleanup Program case (SLT8R0703954), with a cleanup status of "open – site assessment as of 10/14/1997." Site assessments and remedial actions have been performed at both the 4537 facility and 4515A facilities since 1997 to evaluate and remove volatile organic compound (VOC) concentrations in soil, soil vapor, and groundwater resulting from historical drycleaning operations. Based on the historical presence of multiple drycleaners within close proximity (approximately 300 feet), known impacts to soil vapor and groundwater, and active remediation activities and case oversight with the OCHCA, this facility is considered a REC.

Both identified RECs raise concerns of potential off-Site impacts migrating on-Site and presenting a potential vapor intrusion risk to future building occupants. Therefore, a Phase II ESA was prepared on March 11, 2026, and included soil vapor sampling to evaluate whether the known off-Site soil vapor impacts have migrated on to the Site. Results of the soil vapor investigation identified the presence of VOCs in on-Site soil vapor; however, concentrations were low and did not exceed applicable screening levels when using a standard attenuation factor, and only marginally exceeded conservative screening thresholds in limited locations. The investigation concluded that the detected concentrations are unlikely to pose a vapor intrusion risk to future building occupants and are likely associated with off-site sources, with natural attenuation expected over time. As such, no further investigation was recommended.

Project Site A construction activities would include excavation, grading, and demolition of the existing onsite uses. Based on the Phase II ESA findings, these activities would not encounter hazardous materials at concentrations that would pose a risk to construction workers, the public, or the environment. In addition, compliance with applicable federal, state, and local regulations, including implementation of standard construction health and safety measures, would ensure that any potential exposure to subsurface conditions is appropriately managed.

Therefore, Site A construction 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. Further, as concluded in Impact 4.9-a, following compliance with the established regulatory framework, the Project's proposed transport, use, and disposal of hazardous materials during construction, and recommendations from the Phase II ESA evaluation would not create a significant hazard to the public or the environment.

Project Site B

Review of regulatory databases through online search (i.e., SWRCB GeoTracker and DTSC Envirostor) and Environmental Database Review (EDR) were conducted for Project Site B in April 2025 (**Appendix E**). Online search was inclusive of open and closed cases with the respective state regulatory agencies while the EDR database report compiled documented regulatory records based on a search of various federal, state, tribal, and local environmental databases.

Review of the historical documentation was to evaluate Site B for potential historical releases, which could 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. Review of regulatory databases identified 37 listings within a one-mile radius of Project Site B. These listings include Federal RCRA generators; state and tribal leaking underground storage tanks; California Environmental Reporting System (CERS) Hazardous Waste sites; RCRA Non-Generators/No Longer Regulated (RCRA NonGen/NLR) sites; UST Finder Release records; the Hazardous Waste Electronic Manifest System (e-Manifest); Cortese and Historic Cortese listings; dry cleaner sites; Proposition 65 (Notify 65) records; EDR Historic Cleaner listings; and Envirostor records. None of the identified listings are considered to pose a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials. Based on proximity to Project Site B, select listings are discussed in greater detail below.

The Campus Cleaner facility (Cleanup Program case (SLT8R0703954)) is mapped upgradient and northeast of Project Site B located at 4515 Campus Drive. This facility is also associated with addresses 4501-4547 Campus Drive. As discussed above, site assessments and remedial actions have been performed at both the 4537 facility and 4515A facilities since 1997 to evaluate and remove volatile organic compound (VOC) concentrations in soil, soil vapor, and groundwater resulting from historical drycleaning operations. Project Site B is located within proximity to this site (approximately 0.016 mile), however, review of the Fourth Quarter 2016 Quarterly Status Report identifies the groundwater flows northeast of the Campus Cleaner facility, away from Project Site B¹⁸. Given the distance from the Campus Cleaner facility and the groundwater flows away from Project Site B, it can be reasonably concluded that Site B is unlikely to have been impacted from current or former onsite or adjacent uses.

The Torrance Town Cleaners is mapped downgradient, and 0.0845 mile northwest of Project Site B located at 188 Berkeley Avenue. EDR identifies the Torrance Town Cleaners as a Historic Cleaner, however, this property is not identified on SWRCB GeoTracker and DTSC Envirostor databases. Additional information was not identified to confirm if the dry cleaner was an erroneous listing. Given the distance from Site B,

¹⁸ ECC Environmental, 2017, *Fourth Quarter 2016 Quarterly Status Report*, https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/4587278068/SLT8R0703954.20170417.4Q16%20Quarterly%20Status%20Report.pdf, Accessed April 2026.

that the property is downgradient, operated 2010 – 2014 after regulatory requirements governing the use and management of dry-cleaning solvents had been implemented, and the property is not identified on a database, it can be reasonably concluded that Site B is unlikely to have been impacted from current or former onsite or adjacent uses.

The Ritz Cleaners facility is mapped upgradient and 0.223 miles northeast of Project Site B. As discussed above, additional information was not identified to confirm if the dry cleaner was an erroneous listing. Given the distance from Site B and the property is not identified on a database, it can be reasonably concluded that Site B is unlikely to have been impacted from current or former onsite or adjacent uses.

Project Site B construction activities would include excavation, grading, and demolition of the existing onsite uses. Given that the regulatory database search did not identify any potential hazards, Site B construction 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, and a less than significant impact would occur. Further, as concluded in Impact 4.9-a, following compliance with the established regulatory framework, the Project's proposed transport, use, and disposal of hazardous materials during construction would not create a significant hazard to the public or the environment.

Project operations at both Project sites would involve the use of small quantities of hazardous materials for cleaning and maintenance purposes, such as paints, household cleaners, fertilizers, and pesticides. No manufacturing, industrial, or other uses using substantial amounts of hazardous materials would occur as a result of the proposed Project. With proper use and disposal, household maintenance chemicals would not be expected to create a significant hazard to the public or environment. Therefore, given the small quantities of hazards materials typical with residential uses and routine transport, use, or disposal of substantial quantities of hazardous materials would not occur, 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, and a less than significant impact would occur.

4.9c Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. Based on the LRDP EIR, the 2007 LRDP does not include specific proposals for new development that might involve the use or transport of hazardous materials and the campus would continue to comply with the provisions of State CEQA Guidelines §15186 (which establishes requirements for school projects, as well as projects near schools, to ensure that potential health impacts resulting from exposure to hazardous materials, wastes, and substances are examined and disclosed in an environmental document) as it applies to any future development. Compliance with Federal and State regulations pertaining to hazardous wastes, including State CEQA Guidelines §15186, along with the existing campus programs, practices, and procedures would ensure that risks associated with hazardous emissions or materials to existing or proposed schools located one-quarter mile from the campus would remain less than significant through proper handling procedures, disposal practices, and/or clean-up procedures.

Other than the UCI campus, which includes both Project sites, the closest school to the Project is Verano Preschool, located approximately 400 feet southeast of Site B at 3300 Verano Road S and University High School, located approximately 0.4 miles northeast of Site A at 4771 Campus Drive. However, as concluded in Threshold 4.9b, Project construction activities 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. Further, as concluded in *Section 4.3, Air Quality*, through compliance with established regulatory framework, Project construction activities would not expose sensitive receptors to substantial pollutant concentrations or result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Therefore, although Project construction activities could occur within 0.25-mile of an existing or proposed school, Project construction activities would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste that would create a significant hazard to the public or the environment. Therefore, a less than significant impact would occur.

Project operations would involve the use of small quantities of hazardous materials for cleaning and maintenance purposes, such as paints, household cleaners, fertilizers, and pesticides. No manufacturing, industrial, or other uses using substantial amounts of hazardous materials would occur as a result of the Project. With proper use and disposal, household maintenance chemicals would not be expected to create a significant hazard to the public or environment. Additionally, residential uses do not generate hazardous emissions or involve the handling of hazardous materials, substances, or waste in significant quantities that would have an impact to surrounding schools. Therefore, although the Project would operate within one-quarter mile of an existing school, operational activities would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste and a less than significant impact would occur.

4.9d Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. Government Code §65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the SWRCB as having underground storage tank leaks and having had a discharge of hazardous wastes or materials into the water or groundwater and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

As discussed in the LRDP EIR, the only potentially hazardous site identified on the UCI campus is located in the North Campus. Leaking underground storage tanks (LUSTs) were removed from the Corporation Yard located on the North Campus in 1998. Several remediation methods were used prior to, and following, the removal of the UST's. The site was expected to be fully rehabilitated by the end of 2007. As such, the LRDP EIR concluded that implementation of the 2007 LRDP would have a less than significant impact to the public or environment associated with this hazardous site. The proposed Project is not located within the North Campus, nor is either site identified on the active Cortese List; therefore, the Project would not create a significant hazard to the public or the environment and no impact would occur.

4.9e *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. As discussed in the LRDP EIR, UCI is located approximately 1.5 miles east of John Wayne Airport (JWA) and is within the airport planning area for JWA. The LRDP EIR concluded that as UCI was not located within a designated Accident Potential Zone (none were adopted for JWA at that time) and that no aircraft accidents have occurred in the vicinity of the UCI Campus within the past 30 years, it is unlikely that aircraft operations at JWA would pose a safety hazard to people residing or working at the UCI Campus. Therefore, implementation of the 2007 LRDP would not result in a less than significant impact.

The Project sites are located approximately 2.5 miles southeast of JWA and are within the airport planning area.¹⁹ The Airport Land Use Commission for Orange County has established Runway Protection Zones (RPZ) for JWA, also called Accident Potential Zones (APZ), which define the surrounding areas that are more likely to be affected if an aircraft-related accident were to occur. The Project sites are not located within or in proximity to an RPZ.²⁰ Therefore, Project implementation would not result in a safety hazards or excessive noise for people residing or working in the Project areas. No impact would occur.

4.9f *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Project Impact Adequately Addressed in LRDP EIR. As discussed in the LRDP EIR, UCI trains and equips emergency response personnel to respond to hazardous materials emergencies; prepares and updates safety planning documents; implements safety training upon occupying new buildings; develops the Illness and Injury Prevention Plan, Chemical Hygiene Plan, and Evacuation Site Plan for all new buildings as necessary; and assigns a Building Coordinator for each building. In addition, the Orange County Fire Authority (OCFA) is trained and equipped to implement emergency hazardous materials intervention and control techniques on campus. UCI has an Emergency Management Plan, which addresses planned responses, instructions, and procedures to various levels of human-made or natural emergency situations for all campus staff, students, and visitors. Multiple emergency response regions, located throughout the campus, are equipped to provide necessary supplies and trained personnel in the event of an emergency. Although implementation of the 2007 LRDP could interfere with emergency response and evacuation on the campus through construction-related road closures and through operational obstructions (e.g., non-synchronized traffic signals, locked gates, etc.), the LRDP EIR concluded that impacts from construction-related road closures and operational obstructions could be reduced to less than significant levels with implementation of LRDP EIR Mitigation Measure Haz-6A through Haz-6C.

During Project construction, all construction activities, including construction staging, would be contained within the Project sites and no lane closure is anticipated. The proposed Project would not cause any permanent alterations to offsite vehicular circulation routes and/or patterns or obstruct public access or travel. Vehicle access to both Project sites would remain via Adobe Circle. Site A will retain two full-access driveways on Adobe Circle, with the easternmost driveway relocated approximately 100 feet west of its

¹⁹ Orange County Airport Land Use Commission. (2008). *Land Use Plan for John Wayne Airport, FAR Part 77 Map*. Retrieved from: https://files.ocair.com/media/2021-02/JWA_AELUP-April-17-2008.pdf?VersionId=cB0byJjddad9OuY5im7Oaj5aWaT1FS.vD. Accessed March 2025.

²⁰ Ibid, John Wayne Airport Safety Zone Reference Map.

current position. Vehicular access to Site B would be provided via the existing full-access driveway on Adobe Circle and one new driveway on East Peltason Drive, exclusively providing access to a gated PSB surface parking lot for occupants of the existing PSB only. Project driveways and internal drive aisles would be designed to ensure emergency vehicle and fire department access in compliance with Campus Design Standards, Designated Campus Fire Marshal (DCFM), and Orange County Fire Authority (OCFA) requirements and standards.

However, there is potential for Project construction and operations to interfere with emergency response and evacuation on the campus through construction-related road closures and through operational obstructions such as locked gates associated with Site B. Therefore, the Project would implement LRDP EIR Mitigation Measure Haz-6A which requires notifying emergency response providers of road closures and LRDP EIR Mitigation Measure Haz-6C which requires installing emergency opening devices on electronically operated gates on campus. Therefore, the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant with LRDP EIR mitigation incorporated.

4.9g Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact. LRDP EIR concluded that areas prone to wildfire within the campus are vegetation communities, such as coastal sage scrub and grassland (4.6-35), which are flashy fuels that can easily ignite during dry conditions. As shown in LRDP EIR Figures 4.3-2A through 4.3-2D, Plant Communities Maps, patches of coastal sage scrub are located on the North Campus in the SJFM buffer; on the West Campus in land designated as open space in the 2007 LRDP; and on the East Campus in land designated as Mixed Use in the 2007 LRDP. Given many of these areas would be developed through buildout of the 2007 LRDP, and fuel in these areas is generally limited, the LRDP EIR concluded it is unlikely that a large-scale wildfire would occur. Further, according to the LRDP EIR, OCFA would require fuel modification zones or defensible space zones around all development occurring within a fire hazard zone or near open space in accordance with the OCFA's Fuel Modification Plans and Maintenance Manual. The LRDP EIR concludes that through compliance with OCFA's Fuel Modification Plans and Maintenance Manual, which requires a fuel modification plan be prepared for any development occurring adjacent to open space areas, the implementation of the LRDP would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The LRDP concluded a less than significant impact would occur, and no mitigation is required.

While there are undeveloped areas southeast of the Project site (see LRDP Figure 4.3-2C), due to the limited quantities of native vegetation on the campus and its developed nature, it is unlikely for a large-scale wildfire to occur on the campus (page 4.6-36). Except for the Mitigation Site immediately east of Site B, all areas immediately surrounding the Project sites are developed with parking lots, roadways, buildings and other structures, and minimal landscaped areas that are not typically prone to wildfire, see **Table 1**. The Project would be designed in compliance with OCFA's requirements and would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Impacts would be less than significant, and no mitigation is required.

LRDP EIR Mitigation Measures

- Haz-6A:** Prior to initiating on-site construction for future projects that implement the 2007 LRDP and that would involve a lane or roadway closure, the construction contractor and/or UCI Design and Construction Services shall notify the UCI Fire Marshal. If determined necessary by the UCI Fire Marshal, local emergency services shall be notified of the lane or roadway closure by the Fire Marshal.
- Haz-6C:** All electronically-operated gates installed within the UCI Campus shall include emergency opening devices, as approved by the Orange County Fire Authority.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.10 HYDROLOGY AND WATER QUALITY

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		X			
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?					X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:					
i) Result in substantial erosion or siltation on- or off-site?		X			
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?		X			
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?		X			
iv) Impede or redirect flood flows?					X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?					X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X	

Discussion:

Hydrology and Water Quality issues are discussed in Section 4.7 of the LRDP EIR.

4.10a Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Project Impact Adequately Addressed in LRDP EIR. Project impacts related to water quality could occur over three different periods:

- During the earthwork and construction phase, where the potential for erosion, siltation, and sedimentation would be the greatest;
- Following construction, before the establishment of ground cover, when the erosion potential may remain relatively high; and
- After Project completion, when impacts related to sedimentation would decrease markedly but those associated with urban runoff could increase.

Urban runoff, both dry and wet weather, discharges into storm drains, and in most cases, flows directly to creeks, rivers, lakes, and the ocean. Polluted runoff can have harmful effects on drinking water, recreational water, and wildlife. Urban runoff pollution includes a wide array of environmental, storm water characteristics dependent on-site conditions (e.g., land use, impervious cover, and pollution prevention practices), rain events (duration, amount of rainfall, intensity, and time between events), soil type and particle sizes, the amount of vehicular traffic, and atmospheric deposition. Major pollutants typically found in runoff from urban areas include sediments, nutrients, oxygen-demanding substances, heavy metals, petroleum hydrocarbons, pathogens, and bacteria. Most urban storm water discharges are non-point sources.

The LRDP EIR concluded that implementation of the 2007 LRDP would have the potential to generate stormwater runoff pollutants during construction and post-construction activities that could significantly impact downstream water quality, if not properly controlled. However, LRDP EIR Mitigation Measure Hyd-2A would require the preparation and implementation of an erosion control plan, and Hyd-2B would require implementation of design features and treatment control measures to reduce pollutants of concern in runoff. The LRDP EIR concluded that impacts would be reduced to less than significant with LRDP EIR mitigation incorporated.

Construction

Short-term impacts related to water quality can occur during the earthwork and construction phases when the potential for erosion, siltation, and sedimentation would be the greatest. Additionally, impacts could occur prior to the establishment of ground cover when the erosion potential may remain relatively high. As noted above, Project construction activities could produce typical pollutants, such as nutrients, heavy metals, pesticides and herbicides, and chemicals related to construction and cleaning, waste materials, including wash water, paints, wood, paper, concrete, food container, sanitary wastes, fuel, and lubricants. Impacts on storm water quality could occur from Project construction, associated earthmoving, and increased pollutant loading.

The National Pollution Discharge Elimination System (NPDES) program regulates pollutant discharges, which include construction activities. The Santa Ana Regional Water Quality Control Board (RWQCB) oversees permits at UCI. Construction activity would be subject to the NPDES Construction General Permit

for Stormwater Discharge Associated with Construction Activity (Construction General Permit). Construction activities include any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre. Both Project sites would disturb over 1 acre; therefore, the Project would be subject to the Construction General Permit. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) and monitoring plan, which must include erosion-control and sediment control BMPs that would meet or exceed measures required by the Construction General Permit to control potential construction-related pollutants. Erosion-control BMPs prevent erosion, whereas sediment controls trap sediment once it has been mobilized. The types of required BMPs are relative to the amount of soil disturbed, the types of pollutants used or stored at the Project sites, and proximity to water bodies. Compliance with the permit would ensure that runoff from the construction activities associated with the Project would not violate any water quality standards.

In addition, potential impacts related to erosion during grading activities would be further reduced with implementation of LRDP EIR Mitigation Measure Hyd-2A, which requires an erosion control plan for Project construction including design features to prevent contaminants from entering the stormwater system. Therefore, compliance with the NPDES Construction General Permit and implementation of LRDP EIR Mitigation Measure Hyd-2A, would ensure potential water quality impacts associated with Project construction activities would be less than significant.

Operation

The Project would demolish the existing uses on both Project sites and develop the proposed student apartment buildings and surface parking lots. The redesign of the Project sites would include impervious surfaces which can carry pollutants to downstream water bodies and adversely affect water quality. Implementation of the Project would include replacing the existing onsite storm drain system with a new system to accommodate the proposed uses on-site.

BMP features, as outlined in UCI's Storm Water Management Plan, would be included in the Project design and determined during the final design phase. These post construction BMPs could include treatment controls, operating procedures, and practices to control the Project sites runoff, spills and leaks, sludge or waste disposal, or drainage from raw material storage. Therefore, Project operations would not result in water quality impacts to receiving waters, including San Diego Creek and the Upper Newport Bay. LRDP EIR Mitigation Measure Hyd-2B would require design features to prevent contaminants from entering the stormwater system during operation of the project. This would include equivalent design features applicable with MS4 permits.

The post construction design features listed in Mitigation Measure Hyd-2B below provide a variety of methods that would allow for treatment, settlement, and continued infiltration and controlled runoff of stormwater to the San Joaquin Marsh Reserve to maintain the needed flow regime. Accordingly, all treatment controls would have volumetric and/or flow-based design, and would be finalized during the progressive design build phase. These mitigation measures are consistent with the UCI MS4 permit, which requires that post construction design features be included as part of the Project and be operational prior to occupancy of the structures.

Therefore, in compliance with the storm water permits described above and implementation of 2007 LRDP EIR Mitigation Measures Hyd-2A, and Hyd-2B, construction and post construction impacts to water quality standards, waste discharge requirements, or substantial degradation of surface or groundwater quality would not occur. These impacts would be less than significant.

4.10b Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The LRDP EIR states no removal of groundwater would be proposed as part of the LRDP, as future projects would use potable water supplied by the Irvine Ranch Water District (IRWD) via existing lines on UCI's campus. The LRDP EIR concluded that no impact would occur.

Both Project sites would connect to existing UCI-owned water mains supplied by IRWD within adjacent roadways; the Project does not include the use of groundwater. Therefore, the proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge, no impact would occur.

4.10c Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

- i) Result in substantial erosion or siltation on- or off-site?*
- ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?*

Project Impact Adequately Addressed in LRDP EIR. According to the LRDP EIR, implementation of 2007 LRDP projects that would disturb one acre or more of land would have the potential to substantially alter drainage patterns and hydrology which could significantly increase runoff volumes resulting in flooding, exceedance of the existing storm drainage system capacity, and erosion and siltation at downstream water bodies. The LRDP EIR concluded that impacts would be less than significant with the implementation of LRDP EIR Mitigation Measure Hyd-1A, which requires a project to conduct project-specific drainage studies and implement recommended site design and flow control features, if necessary.

As discussed, the proposed Project would construct a storm drain system that would implement design improvements to direct stormwater runoff to catch basins with rip rap, as well as LID strategies and BMPs for treatment of all impervious area runoff. Peak flows during operation of the Project would not exceed the amount of existing peak flows experienced at each Project site and all concentrated discharge locations would include energy dissipators to reduce erosion impacts. The proposed Project would implement erosion and sediment control BMPs required as part of the project's SWPPP and in compliance with UCI's MS4 permit, which would minimize erosion. Therefore, compliance with applicable regulations would ensure that Project implementation impacts related to erosion and siltation would be less than significant.

The proposed Project would utilize porous paving such as concrete permeable pavers where practical. As discussed, the peak flow following implementation of the Project would not exceed

the amount of peak flow during existing conditions. Drainage systems would be designed to carry rainfall, including rainfall discharges from buildings and roadways, from a 25-year storm per standards of the Orange County Flood Control District. In addition, LRDP EIR Mitigation Measure Hyd-1A would require Project specific drainage studies and implement recommended site design and flow control features if necessary to reduce impacts to surface runoff and flooding. Therefore, compliance with applicable regulations for stormwater runoff and implementation of LRDP EIR Mitigation Measure Hyd-1A would ensure that the proposed Project would not result in impacts related to substantial erosion or siltation on- or off-site, or increase surface runoff such that on- or off-site flooding would result. Impacts would be 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?

Project Impact Adequately Addressed in LRDP EIR. As noted above, the LRDP EIR noted that buildout of the 2007 LRDP that would disturb one acre or more of land would have the potential to substantially alter drainage patterns and hydrology which could significantly increase runoff volumes resulting in flooding, exceedance of the existing storm drainage system capacity, and erosion and siltation at downstream water bodies. The LRDP EIR concluded that impacts would be less than significant with the implementation of LRDP EIR Mitigation Measure Hyd-1A, which requires a Project to conduct Project specific drainage studies and implement recommended site design and flow control features, if necessary.

As both Project sites are currently developed, it is not anticipated that Project implementation would result in a substantial increase of impervious surfaces that could contribute to stormwater runoff. The Project's storm drain systems would be sized and designed to ensure that off-site flows that are conveyed through the Project sites and flows originating off of the sites are discharged at a volume and rate that can be accommodated by existing and planned downstream storm drain facilities. In addition, portions of the Project sites would be constructed with low impact development (LID) features, such as the bioretention basins and landscaped areas to retain stormwater flows from each Project site and improve infiltration before being released and conveyed to off-site storm drainage system.

Construction of the proposed Project would result in short-term soil-disturbing activities that could lead to increased runoff. As discussed above under Thresholds 4.10a) and 4.10b), the Project would be required to comply with regulations of UCI's MS4 Permit, as well as the Project's SWPPP, which would identify required BMPs to be incorporated into the Project's design and operation to ensure that near-term construction activities and long-term post-development activities of the proposed Project would not result in substantial amounts of polluted runoff.

Further, potential impacts related to stormwater capacity or polluted runoff during construction and operation would be further reduced with implementation of LRDP EIR Mitigation Measure Hyd-1A, Hyd-2A, and Hyd-2B. As a result, Project implementation is not

anticipated to 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 and impacts would be less than significant.

iv) Impede or redirect flood flows?

No Impact. According to the LRDP EIR, development under the 2007 LRDP would not place structures within the 100-year flood hazard area, as the entire campus is located in Flood Zone X which is outside of the 100- and 500-year floodplains. Therefore, the LRDP EIR concluded 2007 LRDP implementation would not impede or redirect flood flows and impacts would be less than significant.

According to Federal Emergency Management Agency (FEMA), both Project sites are located within “Zone X,” which are areas of minimal flood hazard and is not considered a special flood hazard area²¹. Accordingly, the Project sites are not expected to be inundated by flood flows during the lifetime of the Project and the Project would not impede flood flows. No impact would occur.

4.10d In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. According to the LRDP EIR, implementation of the 2007 LRDP would not likely expose people to structures to seiches, tsunamis, or mudflows due to the topography of the campus and the location of the campus from landlocked bodies of water, the Pacific Ocean, and the surrounding foothills. The LRDP EIR concluded that impacts would be less than significant.

As discussed, the UCI campus is not located within a flood hazard zone²². The Project sites are located over four miles inland from the Pacific Ocean and thus, is located at a sufficient distance to avoid tsunami-related hazards. Furthermore, the UCI campus is not located in an area with potential for seiche and is relatively flat, which is not conducive for mudflows. Thus, the proposed Project would not risk release of pollutants due to Project inundation in flood hazard, tsunami, or seiche zones. No impacts would occur in this regard.

4.10e Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. This threshold was added in a subsequent CEQA Guidelines update. As such, this threshold was not included in the LRDP EIR.

As discussed under Threshold 4.10b), the proposed Project does not require groundwater use. Proposed Project Site A would connect to an existing UCI owned 12-inch water main in Adobe Circle for potable water, fire flow water, and irrigation water. Site B would connect to existing 12-inch water mains in Adobe Circle and East Peltason Drive for potable water and fire flow water. Additionally, Site B would connect to an existing 6-inch reclaimed water main in Peltason Drive for irrigation water. The proposed Project would

²¹ Federal Emergency Management Agency, *FEMA’s National Flood Hazard Layer Viewers*, <https://www.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>, Accessed February 2025.

²² Ibid.

comply with the UCI Storm Water Management Plan as required by UCI's MS4 permit requirements.²³ All projects constructed on the campus are subject to review by UCI's Office of Environmental Health and Safety, which ensures Project compliance with the Storm Water Management Plan and NPDES permits. Therefore, in compliance with the applicable plans and permits, the proposed Project would not conflict with a water quality control plan or groundwater management plan and impacts would be less than significant.

LRDP EIR Mitigation Measures

Hyd-1A: As early as possible in the planning process of future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or greater, and for all development projects occurring on the North Campus in the watershed of the San Joaquin Freshwater Marsh, a qualified engineer shall complete a drainage study. Design features and other recommendations from the drainage study shall be incorporated into Project development plans and construction documents. Design features shall be consistent with UCI's Storm Water Management Program, shall be operational at the time of Project occupancy, and shall be maintained by UCI. At a minimum, all drainage studies required by this Mitigation Measure shall include, but not be limited to, the following design features:

- i. Site design that controls runoff discharge volumes and durations shall be utilized, where applicable and feasible, to maintain or reduce the peak runoff for the 10-year, 6-hour storm event in the post-development condition compared to the pre-development condition, or as defined by current water quality regulatory requirements.
- ii. Measures that control runoff discharge volumes and durations shall be utilized, where applicable and feasible, on manufactured slopes and newly-graded drainage channels, such as energy dissipaters, revegetation (e.g. hydroseeding and/or plantings), and slope/channel stabilizers.

Hyd-2A: Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall approve an erosion control plan for Project construction. The plan shall include, but not be limited to, the following applicable measures to protect downstream areas from sediment and other pollutants during site grading and construction:

- i. Proper storage, use, and disposal of construction materials.
- ii. Removal of sediment from surface runoff before it leaves the site through the use of silt fences, gravel bags, fiber rolls or other similar measures around the site perimeter.
- iii. Protection of storm drain inlets on-site or downstream of the construction site through the use of gravel bags, fiber rolls, filtration inserts, or other similar measures.

²³ University of California, 2020, *Storm Water Management Plan*, https://www.ehs.uci.edu/enviro/storm-water/_pdf/UCI_SWMP.pdf, Accessed February 2025

- iv. Stabilization of cleared or graded slopes through the use of plastic sheeting, geotextile fabric, jute matting, tackifiers, hydro-mulching, revegetation (e.g., hydroseeding and/or plantings), or other similar measures.
- v. Protection or stabilization of stockpiled soils through the use of tarping, plastic sheeting, tackifiers, or other similar measures.
- vi. Prevention of sediment tracked or otherwise transported onto adjacent roadways through use of gravel strips or wash facilities at exit areas (or equivalent measures).
- vii. Removal of sediment tracked or otherwise transported onto adjacent roadways through periodic street sweeping.
- viii. Maintenance of the above-listed sediment control, storm drain inlet protection, slope/stockpile stabilization measures.

Hyd-2B: Prior to Project design approval for future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or more, the UCI shall ensure that the projects include the design features listed below, or their equivalent, in addition to those listed in Mitigation Measure Hyd-1A. Equivalent design features may be applied consistent with applicable MS4 permits (UCI's Storm Water Management Plan) at that time. All applicable design features shall be incorporated into Project development plans and construction documents; shall be operational at the time of Project occupancy; and shall be maintained by UCI.

- i. All new storm drain inlets and catch basins within the Project site shall be marked with prohibitive language and/or graphical icon to discourage illegal dumping per UCI standards.
- ii. Outdoor areas for storage materials that may contribute pollutants to the storm water conveyance system shall be covered and protected by secondary containment.
- iii. Permanent trash container areas shall be enclosed to prevent off-site transport of trash, or drainage from open trash container areas shall be directed to the sanitary sewer system.
- iv. At least one treatment control is required for new parking areas or structures, or for any other new uses identified by UCI as having the potential to generate substantial pollutants. Treatment controls include, but are not limited to, detention basins, infiltration basins, wet ponds or wetlands, bio-swales, filtration devices/inserts at storm drain inlets, hydrodynamic separator systems, increased use of street sweepers, pervious pavement, native California plants and vegetation to minimize water usage, and climate controlled irrigation systems to minimize overflow. Treatment controls shall incorporate volumetric or flow-based design standards to mitigate (infiltrate, filter, or treat) storm water runoff, as appropriate.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.11 LAND USE AND PLANNING

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Physically divide an established community?					X
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?				X	

Discussion

Land Use and Planning issues are discussed in Section 4.8 of the LRDP EIR.

4.11a Physically divide an established community?

No Impact. The LRDP EIR included an analysis of whether the implementation of the 2007 LRDP would result in land use incompatibilities between campus development and adjacent community land uses. The LRDP EIR concluded that the East Campus, where the proposed Project is located, is predominantly a student residential community that provides housing and support facilities and would not conflict with surrounding uses.

A significant impact could occur if implementation of the Project would result in physical barriers that change the connectivity between areas of a community to the extent that persons are physically separated from other areas of the community. Examples of projects that could physically divide an established community include a new freeway or highway that traverses an established neighborhood. The Project would develop student apartment buildings on two currently developed sites containing existing surface parking lots and a vacant office building. The Project would be consistent with the surrounding student residential uses and would not affect the land use pattern of any of the surrounding community or residential areas, either on- or off-campus. No existing bikeways, roadways, or driveways would be removed as part of the Project and no separation of uses or disruption of access between land use types would occur. New pedestrian walkways would be constructed within the Project sites that would be contiguous with and tie into existing pedestrian walkways at the perimeters of the Sites. The Project does not propose any new streets or other physical barriers, which could physically divide an established community. As such, the proposed Project would not physically divide an established community. Therefore, no impact would occur in this regard.

4.11b 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?

Less Than Significant Impact. As noted above, the LRDP EIR included an analysis of whether the implementation of the 2007 LRDP would result in land use incompatibilities between campus

development and adjacent community land uses. The LRDP EIR concluded that the East Campus, where the proposed Project is located, is predominantly a student residential community that provides housing and support facilities and would not conflict with surrounding uses. As discussed in the LRDP EIR, UCI is part of the UC system, a constitutionally created entity of the State of California and is not subject to municipal regulations, such as the City of Irvine General Plan. The applicable land use plan is the 2007 LRDP and the University is the only agency with land use jurisdiction over projects located on the campus.

Both Projects Sites are currently designated Academic & Support in the 2007 LRDP, therefore the Project would require LRDP Amendment #5 to redesignate both sites to Student Housing. LRDP Amendment #5 would allow the Project sites to be used for the proposed student housing use. The 2007 LRDP and subsequent LRDP Student Housing Amendment (2019) analyzed a capacity of up to 22,000 beds, which was approved by the Regents on September 18, 2019. There are currently 18,076 existing beds on the UCI Campus. The proposed Project would include construction of up to 1,100 beds across the two sites, increasing on-campus student housing to 19,176 beds. Therefore, the proposed Project would not exceed 22,000 beds and accordingly would be consistent with student housing buildout assumptions as analyzed in the 2007 LRDP EIR and the LRDP Student Housing Amendment (2019). Therefore, the proposed Project would be consistent with the 2007 LRDP and its subsequent amendments and would not conflict with an applicable land use plan adopted for the purpose of mitigating an environmental effect. Impacts would be less than significant.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.12 MINERAL RESOURCES

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:					
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?					X
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?					X

Discussion

Mineral Resources are discussed in Section 5.0 of the LRDP EIR.

4.12a 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?

4.12b 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. According to the LRDP EIR, implementation of the 2007 LRDP did not have the potential to result in significant impacts related to mineral resources. Mineral resources do not occur on UCI property. The predominant formational materials that underlie the LRDP area are the Topanga formation. This formation consists of sandstone, breccia, volcanic flows, and siltstone. The Topanga formation does not contain mineral resources; therefore, the loss of known mineral resources valuable locally or regionally would not occur as a result of development of the 2007 LRDP. The LRDP EIR concluded that no impact would occur.

The California Geological Survey is responsible for classifying land into Mineral Resource Zones (MRZ) under the Surface Mining Control and Reclamation Act based on the known or inferred mineral resource potential of that land. There are four MRZ classifications, MRZ-1 through MRZ-4. Site A and Site B are located within areas classified as MRZ-3²⁴, which are areas containing known or inferred Portland cement concrete aggregate resource of undetermined mineral resource significance. However, both Project sites are currently developed, and no mining activities occur on-site or on adjacent properties. As discussed above, the LRDP EIR concluded that mineral resources do not occur on the UCI Campus. As such, implementation of the proposed Project would not result in the loss of availability of a known mineral resource of value in the State, region, or local area. No impact would occur in this regard.

²⁴ City of Irvine. (2024). 2045 General Plan Conservation and Open Space Element, Figure 10: Mineral, Oil, and Gas Resources. Retrieved from: <https://legacy.cityofirvine.org/civica/filebank/blobdload.asp?BlobID=35717>. Accessed February 2025.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.13 NOISE

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X			
b) Generation of excessive groundborne vibration or groundborne noise levels?				X	
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?				X	

Discussion

Noise issues are discussed in Section 4.9 of the LRDP EIR. A Project-specific Noise Analysis was prepared by Kimley-Horn and Associates and incorporated into the analysis below. See **Appendix F: Noise Measurement Data** of this IS/MND for modeling outputs and noise measurement locations.

Noise Background

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of various distant and indistinguishable noise sources. The sound from individual local sources is superimposed on this background noise. These can vary from an occasional aircraft or train passing by to virtually continuous noise from traffic on a major highway.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people

is largely dependent on the total acoustical energy content of the noise as well as the time of day when the noise occurs. Most commonly, environmental sounds are described in terms of L_{eq} that has the same acoustical energy as the summation of all the time-varying events. While the equivalent continuous sound level (L_{eq}) represents the continuous sound pressure level over a given period; the Day-Night Sound level (L_{dn}) is a 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. and an additional 5 dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. to account for noise sensitivity in the evening and nighttime.

Regulatory Setting

State

California Government Code. California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The UC is not subject to local government General Plans due to its Constitutional autonomy to pursue its educational mission. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of “normally acceptable”, “conditionally acceptable”, “normally unacceptable”, and “clearly unacceptable” noise levels for various land use types. Single-family homes are “normally acceptable” in exterior noise environments up to 60 CNEL and “conditionally acceptable” up to 70 CNEL. Multiple-family residential uses are “normally acceptable” up to 65 CNEL and “conditionally acceptable” up to 70 CNEL. Schools, libraries, and churches are “normally acceptable” up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Title 24 – Building Code. The State’s noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new multi-family residential buildings, the acceptable interior noise limit for new construction is 45 dBA CNEL.

UC

UCI Long Range Development Plan Final EIR. Mitigation Measure Noi-1A of the LRDP EIR provide noise standards of 60 dBA CNEL for single-family campus housing, 65 dBA CNEL for multi-family campus housing and 70 dBA CNEL for classrooms, libraries, and clinical facilities. The Project site is surrounded by multi-family residences (dormitories) except for classrooms to the west of E. Peltason Drive. As such, the on-site traffic noise analysis utilizes the LRDP EIR’s 65 dBA CNEL noise standard near the multi-family residential and 70 dBA CNEL noise standard near the classrooms to analyze traffic noise impacts.

City of Irvine General Plan. The California Government Code requires that a noise element be included in the general plan of each county and city in the state. The *City of Irvine General Plan* (Irvine General Plan or IGP) *Noise Element* (Irvine Noise Element) identifies sources of noise and provides objectives and

policies that ensure that noise from various sources does not create an unacceptable noise environment. UCI has constitutional autonomy to pursue its educational missions and is not subject to local regulations. However, the City of Irvine's land use compatibility noise standards are relevant to UCI in establishing guidelines and evaluating impacts because the UC has not established its own noise thresholds.²⁵ So the UC is choosing to adopt Irvine's noise thresholds. The Irvine Noise Element sets forth general community noise and land use compatibility guidelines, as shown in **Table 19: City of Irvine Land Use Compatibility Guidelines**. Sound levels up to 65 dBA CNEL are normally compatible for single-family residential, transient lodging, and park uses. Sound levels up to 60 dBA CNEL are normally compatible for institutional uses such as hospitals, churches, libraries, and schools.

Table 19: City of Irvine Land Use Compatibility Guidelines

Land Use Category	Uses	Energy Average (CNEL)						
		≤	55	60	65	70	75	80 ≥
Residential ³	Single-Family, Multiple-Family	A	A	B	B	C	D	D
	Mobile Home	A	A	B	B	C	D	D
Commercial Regional Family	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
Commercial Regional Community	Commercial retail, Bank, Restaurant, Movie theater	A	A	A	A	B	B	C
Commercial Community Industrial & Institutional	Office building, Research & development Professional office, City office building	A	A	A	B	B	C	D
Commercial Recreation Institutional General	Amphitheater, Concert Hall, Auditorium, Meeting Hall	B	B	C	C	D	D	D
Commercial Recreation	Children's amusement park, Miniature golf, Go-cart track, Health club, Equestrian center	A	A	A	B	B	D	D
Commercial Community Industrial General	Automobile Service station, Auto dealer, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Institutional General	Hospital, Church, Library, School classrooms	A	A	B	C	C	D	D
Open Space	Parks	A	A	A	B	C	D	D
	Golf courses, Nature centers, Cemeteries, Wildlife reserves, Wildlife habitat	A	A	A	A	B	C	C
Agricultural	Agriculture	A	A	A	A	A	A	A
Notes: Zone A (Clearly Compatible): Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.								

²⁵ University of California Irvine, November 2007, *UCI 2007 Long Range Development Plan Final EIR - Chapter 4.9 Noise*, p. 21.

Zone B (Normally Compatible): New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.
Zone C: Normally Incompatible : New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.
Zone D (Clearly Incompatible): New construction or development should generally not be undertaken.
Source: City of Irvine, July 2015, <i>City of Irvine General Plan</i> , Supp. No. 9.

City of Irvine Noise Ordinance. UCI has constitutional autonomy and is not subject to local regulations. However, the UC can choose to use the City's standard.

Construction Noise

Irvine Municipal Code (IMC) Section 6-8-205(A) indicates the following:

Construction activities may occur between 7:00 a.m. and 7:00 p.m. Mondays through Fridays, and 9:00 a.m. and 6:00 p.m. on Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles, and equipment that are making, or are involved with, material deliveries, loading, transfer of materials, equipment service, maintenance of any devices or appurtenances for (or within) any construction project in the City, shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take into consideration the potential impact upon the community. No construction activity would be permitted outside of these hours, except in emergencies including maintenance work on the City rights-of-way that might be required.

Interior and Exterior Noise Standards

The City of Irvine Noise Ordinance (Title 6, Division 8, Chapter 2, Section 6-8-204 of the [IMC] also provides exterior and interior noise limit thresholds for certain periods of time. **Table 20: City of Irvine Noise Ordinance Levels**, presents noise standards published in Section 6-8-204 of the City of Irvine Noise Ordinance. The proposed Project would be considered as Noise Zone 2.

Table 20: City of Irvine Noise Ordinance Levels

Noise Zone	Exterior or Interior?	Time Period	Noise Levels (dBA) for a Period Not Exceeding				
			30 min	15 min	5 min	1 min	0 (anytime)
I: All hospitals, libraries, churches, schools, and residential properties	Exterior	7:00 a.m. – 10:00 p.m.	55	60	65 ¹	70	75
		10:00 p.m. – 7:00 a.m.	50	55	60	65 ¹	70
	Interior	7:00 a.m. – 10:00 p.m.	-	-	55	60	65
		10:00 p.m. – 7:00 a.m.	-	-	45	50	55
II: All professional office and public institutional properties.	Exterior	Any time	55	60	65	70	75
	Interior	Any time	-	-	55	60	65
III: All commercial properties excluding professional office properties.	Exterior	Any time	60	65	70	75	80
	Interior	Any time	-	-	55	60	65
IV: All industrial properties.	Exterior	Any time	70	75	80	85	90
	Interior	Any time	-	-	55	60	65

Notes:

1. This standard does not apply to multi-family residence private balconies. Multi-family developments with balconies that do not meet the 65 CNEL are required to provide occupancy disclosure notice to all future tenants regarding potential noise impacts.
2. It shall be unlawful for any person at any location within the City to create any noise or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level when measured on any property within designated noise zones either within or without the City to exceed the applicable noise standard.
3. Each of the noise standards specified above shall be reduced by five dBA for impact, or predominant tone noise or for noises consisting of speech or music.
4. In the event that the noise source and the affected property are within different noise zones, the noise standards of the affected property shall apply.

Source: City of Irvine, *City of Irvine Municipal Code, Title 6, Division 8, Chapter 2, Section 6-8-204*, codified through Ordinance No. 20-02, enacted February 11, 2020.

Existing Setting

Existing Noise Sources

Noise sources on the campus include the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) that generate stationary-source noise. The existing mobile noise sources in the project area are generated by motor vehicles traveling on E. Peltason Drive/Berkeley Avenue, Campus Drive, and California Drive. The primary sources of stationary noise in the project vicinity are those associated with the surrounding residential. Such noise sources include birds chirping, residents cooking and playing music, and construction noise (e.g., drilling) and are typical of urban areas. The noise associated with these sources may represent a single-event noise occurrence or short-term noise.

Noise Measurements

To determine ambient noise levels in the project area, four short-term (10-minute) noise measurements were taken using a Larson Davis SoundExpert LxT Type I integrating sound level meter on January 15, 2025; refer to **Appendix F** for existing noise measurement data. The noise measurement sites are representative of typical existing noise exposure within and immediately adjacent to the Project site. The 10-minute daytime measurements were taken between 9:48 a.m. and 11:14 a.m. **Table 21: Noise Measurements** provides the ambient noise levels measured at these locations. The noise measurement locations are shown in **Appendix F**

Table 21: Noise Measurements

Site No.	Location	L _{eq} (dBA)	L _{min} (dBA)	L _{max} (dBA)	L _{peak} (dBA)	Time
ST-1	Northwest of Project Site B, within the Berkeley Court Apartment located along Berkley Avenue and Campus Drive.	50.3	40.3	62.8	92.5	11:04-11:14 a.m.
ST-2	North of Project Site B, within the Cornell Court Apartment along Berkley Avenue and Campus Drive.	51.6	41.4	65.3	87.8	10:49-10:59 a.m.
ST-3	On Project Site B, along Berkley Avenue and Campus Drive.	57.0	45.4	77.4	89.8	9:48-9:58 a.m.
ST-4	On Project Site A, along California Avenue and Campus Drive.	65.6	47.1	70.9	89.2	10:26-10:36 a.m.
Source: Noise Measurements taken by Kimley-Horn and Associates, Inc., January 15, 2025. See Appendix F for noise measurement results.						

Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. As shown in **Table 22: Sensitive Receptors**, sensitive receptors near the Project site include single-family residences, student housing, schools, parks, and retirement community. These distances are measured from the Project site boundary to the sensitive receptor property line.

Table 22: Sensitive Receptors

Receptor Type/Description	Distance and Direction from the Project Site
Project Site A	
UCI Puerta del Sol Building	Adjacent to the west
UCI Plaza Verde Building	131 feet to the east
UCI Early Childhood Education Center	97 feet to the south
Columbia Apartment	804 feet to the north
Arroyo Vista Housing	401 feet to the southeast
Harvard Manor Apartment	847 feet to the north
Regents Point Retirement Community	1,279 feet to the north
UCI Campus Recreation	1,547 feet to the south
UCI Camino del Sol	1,563 feet to the southeast
William R Mason Regional Park	1,690 feet to the north
University High School	1,835 feet to the northeast
Single-family Residential	1,918 feet to the east
UCI Vista del Campo	2,704 feet to the southeast
Mountain View Park	3,988 feet to the southeast
Project Site B	
UCI Puerta del Sol Building	88 feet to the east
UCI Dental Clinic	261 feet to the south
Aldrich Park	1,723 feet to the west
Education Building	170 feet to the west
Cornell Court Apartment	110 feet to the north
Berkeley Court Apartment	242 feet to the northwest
Student Health Center	328 feet to the southwest
Single-family Residential	1,910 feet to the south
University Montessori School	2,078 feet to the southwest
UCI Middle Earth Housing	700 feet to the southwest
UCI Palo Verde Housing	1,589 feet to the southeast
UCI Verano Place Housing	141 feet to the east
Darhmouth Apartment	1,662 feet to the northwest
1. Distance measured from the Project site boundary line to the property line of the sensitive receptor.	
Source: Google Earth, 2025.	

4.13a 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?

Impact Adequately Addressed in LRDP EIR.

Construction

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the uses surrounding the construction site. Heavy equipment would operate adjacent to the student housing and childcare center 97 feet to the south of Site A as well as student housing approximately 88 feet east of Site B. Other sensitive land uses are located approximately 131 feet away and are separated by streets that would obstruct construction noise to insignificant levels.

Construction activities would include demolition, grading, building construction, paving, and architectural coating. Such activities may require dozers, concrete/industrial saws, and tractors during demolition; graders, dozers, tractors, and excavators during grading; cranes, forklifts, generators, tractors, and welders during building construction; cement and mortar mixers, pavers, rollers, tractors, and paving equipment during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. The demolition and grading phases generally have the highest noise levels but the shortest duration of all construction phases. Typical noise levels associated with individual construction equipment are listed in **Table 23: Typical Construction Noise Levels**.

As noted above, the closest sensitive receptor to the Project is the student housing adjacent to the Site A and 88 feet to the east of Site B. The equipment used near the existing student housing include concrete saws, dozers, tractors, graders, cranes, forklifts, generator sets, welders, cement mixers, pavers, rollers, and air compressors. The highest noise level from these types of equipment is 88 dBA at 50 feet. Construction activities would generally be limited to weekday daytime hours between 7:00 a.m. and 7:00 p.m. Monday through Fridays, and 9:00 a.m. and 6:00 p.m. on Saturdays and grading activities would conform to the time-of-day restrictions of LRDP Mitigation Measure Noi-2A and IMC Section 6-8-205(A). It is noted that the Noi-2A construction time of day limits do not apply during summer, winter, or spring break. However, while UCI is not subject to the Irvine Noise Ordinance, UCI strives to meet community standards to ensure compatibility between UCI land uses and operations and the local community.²⁶

Noise impacts from Project-related construction activities occurring within or adjacent to the Project site would be a function of the noise generated by construction equipment, the location of the equipment,

²⁶ University of California Irvine, November 2007, *UCI 2007 Long Range Development Plan Final EIR - Chapter 4.9 Noise*, p. 21.

the timing and duration of the noise-generating construction activities, and the relative distance to the noise-sensitive receptors.

Although UCI is not subject to City ordinances, construction would also adhere to the City of Irvine's noise ordinance where applicable. IMC Section 6-8-205(A) indicates that construction activities may occur between 7:00 a.m. and 7:00 p.m. Mondays through Fridays, and 9:00 a.m. and 6:00 p.m. on Saturdays. While the City establishes limits to the hours during which construction activity may take place, it does not identify specific noise level limits for construction noise levels. The City's permitted hours of construction are required in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant impact. The 2007 LRDP EIR uses a construction noise threshold of 75 dBA (L_{eq} 12 hour) between 7:00 a.m. and 7:00 p.m. at any noise-sensitive land use.²⁷

Table 23: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 25 feet from Source	Typical Noise Level (dBA) at 50 feet from Source ¹	Typical Noise Level (dBA) at 150 feet from Source ¹
Air Compressor	86	80	70
Backhoe	86	80	70
Compactor	88	82	72
Concrete Mixer	91	85	75
Concrete Pump	88	82	72
Concrete Vibrator	82	76	66
Crane, Derrick ²	94	88	78
Crane, Mobile	89	83	73
Dozer	91	85	75
Generator	88	82	72
Grader	91	85	75
Impact Wrench	91	85	75
Jack Hammer	94	88	78
Loader	86	80	70
Paver	91	85	75
Pile-driver (Impact) ²	107	101	91
Pile-driver (Sonic) ²	101	95	85
Pneumatic Tool	91	85	75
Pump	83	77	67
Roller	91	85	75
Saw	82	76	66
Scraper	91	85	75
Shovel	88	82	72
Truck	90	84	74
1. Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1 + 20\log(d_1/d_2)$ Where: dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance.			
2. Equipment not required for Project construction.			
Source: Federal Transit Administration, September 2018, <i>Transit Noise and Vibration Impact Assessment Manual</i> .			

²⁷ University of California, Irvine, November 2007, *2007 Long Range Development Plan Final Environmental Impact Report*, Page 4.9-31.

The noise levels calculated in **Table 24: Project Construction Noise Levels**, show estimated exterior construction noise at the closest receptors. Student housing is located adjacent to the Site A. There is also childcare center approximately 97 feet to the south of Site A and multifamily residences approximately 110 feet north from Site B. The distances used in the model are changed to reflect that construction would take place throughout the Project site and would not take place extensively on the edge of the Project site. Construction noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor.

Actual construction-related noise activities would be lower than the conservative levels described above and would cease upon completion of construction. Due to the variability of construction activities and equipment for the Project, overall construction noise levels would be intermittent and would fluctuate over time. These assumptions represent the worst-case noise scenario because construction activities would typically be spread out throughout the Project site, and thus some equipment would be farther away from the affected receptors. In addition, the noise modeling assumes that construction noise is constant, when, in fact, construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities. It is also noted that Project construction equipment would be equipped with functioning mufflers as mandated by the state, and construction would occur throughout the Project site and would not be concentrated or confined in the area directly adjacent to sensitive receptors.

Table 24: Project Construction Noise Levels

Construction Phase	Receptor Location			Worst Case Modeled Exterior Noise Level (dBA L _{eq})	Noise Threshold (dBA L _{eq}) ²	Exceeded?
	Land Use	Direction	Distance (feet) ¹			
Project Site A						
Demolition	Student Housing	West	25	78.4	75	Yes
	Childcare Center	South	97	72.4	75	No
	Student Housing	East	131	73.5	75	No
Grading	Student Housing	West	25	74.7	75	No
	Childcare Center	South	97	71.2	75	No
	Student Housing	East	131	72.9	75	No
Building Construction	Student Housing	West	25	74.7	75	No
	Childcare Center	South	97	74.7	75	No
	Student Housing	East	131	74.8	75	No
Paving	Student Housing	West	25	77.4	75	Yes
	Childcare Center	South	97	74.9	75	No
	Student Housing	East	131	72.8	75	No
Architectural Coating	Student Housing	West	25	64.5	75	No
	Childcare Center	South	97	64.5	75	No
	Student Housing	East	131	64.7	75	No
Project Site B						
Demolition	Multifamily Residential	North	110	74.9	75	No
	Student Housing	East	141	74.9	75	No
	Education Building	West	170	74.6	75	No
Grading	Multifamily Residential	North	110	72.2	75	No
	Student Housing	East	141	72.6	75	No
	Education Building	West	170	73.4	75	No
	Multifamily Residential	North	110	73.3	75	No

Construction Phase	Receptor Location			Worst Case Modeled Exterior Noise Level (dBA L _{eq})	Noise Threshold (dBA L _{eq}) ²	Exceeded?
	Land Use	Direction	Distance (feet) ¹			
Building Construction	Student Housing	East	141	71.8	75	No
	Education Building	West	170	71.1	75	No
Paving	Multifamily Residential	North	110	68.6	75	No
	Student Housing	East	141	73.9	75	No
	Education Building	West	170	74.8	75	No
Architectural Coating	Multifamily Residential	North	110	62.4	75	No
	Student Housing	East	141	60.9	75	No
	Education Building	West	170	60.3	75	No
1. Distance is from the nearest receptor property line to center of construction activity. Not all equipment would operate at the closest distance to the receptor. 2. Threshold from the 2007 LRDP EIR.						
Source: Federal Highway Administration, 2006, <i>Roadway Construction Noise Model</i> . Refer to Appendix F for noise modeling results.						

Actual construction-related noise activities would be lower than the conservative levels described above and would cease upon completion of construction. Due to the variability of construction activities and equipment for the Project, overall construction noise levels would be intermittent and would fluctuate over time. These assumptions represent the worst-case noise scenario because construction activities would typically be spread out throughout the Project site, and thus some equipment would be farther away from the affected receptors. In addition, the noise modeling assumes that construction noise is constant, when, in fact, construction activities and associated noise levels would fluctuate and generally be brief and sporadic, depending on the type, intensity, and location of construction activities.

Table 24 shows that construction noise levels would potentially exceed the 75-dBA standard at the student housing without mitigation. However, LRDP EIR MM Noi-2A has been included from the 2007 LRDP EIR to require construction equipment to be outfitted and maintained with manufacturer recommended noise-reduction devices to minimize construction-generated noise. It is also noted that Project construction equipment would be equipped with functioning mufflers as mandated by the state. The FHWA indicates that muffler systems can reduce noise levels by 10 dBA or more²⁸, which would reduce construction noise below the 75-dBA standard. With noise-reduction devices, 78.4 dBA would be reduced to 68.4 dBA and 77.4 dBA to 67.4 dBA.

Furthermore, complying with LRDP EIR MM Noi-2A incorporates various measures to minimize construction noise, such as limiting construction hours, requiring properly maintained construction equipment with manufacturer recommended noise-reduction devices (including mufflers), locating stationary construction equipment and staging areas at least 100 feet from sensitive receptors, and notifying neighboring land uses prior to construction activities. Therefore, with implementation of MM Noi-2A, Project construction activities would result in a less than significant noise impact.

Operations

The proposed Project would demolish the existing uses on Site A and Site B and develop both sites with new student housing. Thus, the operational noise (stationary sources and traffic) associated with the proposed Project would be similar to the existing surrounding student housing and existing noise levels.

²⁸ Federal Highway Administration, 2017, *Special Report - Measurement, Prediction, and Mitigation*, Chapter 4 Mitigation.

Table 25: Stationary Operational Noise shows the noise levels generated by various stationary noise sources and the resulting noise level at the nearest receiver.

After completion of construction activities, typical noise associated with university facility land uses include traffic, talking, and delivery drop offs. Noise from stationary sources would be consistent with the surrounding uses and would primarily occur during the “daytime” activity hours of 7:00 a.m. to 10:00 p.m. The proposed Project would be required to comply with the noise standards set forth in the LRDP MM Noi-1A and MM Noi-1B. Additionally, impacts to off-campus receptors would comply with IMC Section 6-8-204(B), Exterior and Interior Noise Standards.²⁹

Mechanical Noise. The nearest sensitive receptors to the Project site are the student housing (Puerta Del Sol student housing) directly to the west of Site A and residential to the north of Site B. Potential stationary noise sources related to long-term Project operations would include mechanical equipment. Mechanical equipment (e.g., heating ventilation and air conditioning [HVAC] equipment) typically generates noise levels of approximately 52 dBA at 50 feet.³⁰ Noise has a decay rate due to distance attenuation, which is calculated based on the Inverse Square Law of sound propagation. Based upon the Inverse Square Law, sound levels decrease by 6 dBA for each doubling of distance from the source.³¹

The HVAC units associated with the proposed university facility would be located 70 feet or more from the closest sensitive receptors and would be located atop the seven-story structure. At this distance HVAC noise would be reduced to 49.1 dBA, which is below the UCI’s 65 dBA standard and the City’s lowest daytime and nighttime standards of 55 dBA and 50 dBA, respectively. **Table 25** shows that existing noise level would be 65.6 dBA. However, when mechanical noise is added to the existing noise level, the noise level would be 65.7 dBA. Therefore, mechanical noise level would result in an increase of 0.1 dBA, which would not exceed the 3 dBA increase above ambient noise threshold in the LRDP EIR.

It should be noted that this noise level conservatively does not take credit for attenuation from terrain or intervening walls, which would further reduce noise levels. Additionally, the HVAC equipment would run sporadically throughout the day (when temperatures are warmer) and less frequent during nighttime hours (when temperatures are cooler). Furthermore, HVAC noise currently occurs on-site, and Project generated noise would be similar to existing conditions. Therefore, impacts from mechanical equipment would be less than significant.

Parking Noise. Traffic associated with parking areas is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the L_{eq} or CNEL scales. The instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys range from 53 to 61 dBA³² and may be an annoyance to adjacent noise-sensitive receptors. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 50 feet for normal speech to 50 dBA at 50 feet for very loud speech.³³ It should be noted that parking lot noise are instantaneous noise levels compared to noise

²⁹ University of California Irvine, November 2007, *UCI 2007 Long Range Development Plan Final EIR - Chapter 4.9 Noise*, p. 21.

³⁰ Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, June 26, 2015, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*.

³¹ Cyril M. Harris, 1994, *Noise Control in Buildings*.

³² Kariel, H. G., 1991, *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10.

³³ Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, June 26, 2015, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*.

standards in the hourly L_{eq} metric, which are averaged over the entire duration of a time period. As a result, actual noise levels over time resulting from parking lot activities would be far lower.

The nearest sensitive receptors (Puerta Del Sol student housing) would be located approximately 45 feet from the closest parking lot. At this distance, parking lot noise would be approximately 61.9 dBA. However, when combined with parking noise, combined noise level at receptor would be 67.1 dBA. Therefore, parking lot noise level would result in an increase of 1.5 dBA, which would not exceed the 3 dBA increase above ambient noise threshold.

Parking currently occurs on-site and also occurs at the adjacent properties under existing conditions. Nominal parking noise would occur on-site within parking stalls and would be consistent with existing conditions. Additionally, parking lot noise is instantaneous and would be well below the noise threshold identified in the LRDP EIR and the City of Irvine noise standards when averaged over time. Therefore, noise impacts from parking lots would be less than significant.

Landscape Maintenance Activities. Development and operation of the project includes new landscaping that would require periodic maintenance. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 70 dBA at a distance of five feet.³⁴ The nearest landscape maintenance activity would be located approximately 30 feet from the closest sensitive receptors (Puerta Del Sol student housing) to the west from Site A. At this distance, landscape maintenance noise levels near the sensitive receptor to the west would be 54.4 dBA. When landscape maintenance noise is added to the existing noise level, the noise level would be 65.9 dBA. Therefore, landscape maintenance noise levels would result in an increase of 0.3 dBA, which would not exceed the 3 dBA increase above ambient noise threshold.

Landscape maintenance activities would operate during daytime hours for brief periods of time and would not permanently increase ambient noise levels in the project vicinity. Additionally, landscape maintenance noise levels would be consistent with activities that currently occur at the surrounding uses.

Table 25: Stationary Operational Noise

Sensitive Receptor Location	Noise Source	Reference Level (dBA) ²	Reference Distance (feet)	Distance to Receptor (feet) ¹	Level at Receptor (dBA) ²	Ambient Level (dBA) ³	Combined Noise at Receptor (dBA)	Incremental Increase (dBA)	Incremental Increase Threshold ⁴	Significant?
Project Site A										
West	Mechanical Equipment ⁵	52	50	70	49.1	65.6	65.7	0.1	3	No
	Parking ⁶	61	50	45	61.9	65.6	67.1	1.5	3	No
	Landscape Maintenance ⁷	70	5	30	54.4	65.6	65.9	0.3	3	No
Project Site B										
North	Mechanical Equipment ⁵	52	50	125	44.0	57.0	57.2	0.2	3	No
	Parking ⁶	61	50	250	47.0	57.0	57.4	0.4	3	No
	Landscape Maintenance ⁷	70	5	104	43.6	57.0	57.2	0.2	3	No
¹ The distance is from the location of the operational noise source to the sensitive receptor property line. ² Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1 + 20\log(d_1/d_2)$, where dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance.										

³⁴ U.S. EPA, 1971, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*.

3. Measured ambient noise levels ranged from 50.3 dBA and 65.6 dBA (refer to Table 21). The lowest measured level at the Project on-site is conservatively used for this evaluation.
4. University of California Irvine, November 2007, *UCI 2007 Long Range Development Plan Final EIR - Chapter 4.9 Noise*, p. 24.
5. Source for reference level: Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, July 6, 2010, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*.
6. Source for reference level: Kariel, H. G., 1991, Noise in Rural Recreational Environments, *Canadian Acoustics* 19(5), 3-10.
7. Source for reference level: U.S. EPA, 1971, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*.

Off-Site Traffic Noise. In general, a 3-dBA increase in traffic noise is barely perceptible to people, while a 5-dBA increase is readily noticeable. Traffic volumes on Project area roadways would have to approximately double for the resulting traffic noise levels to generate a 3-dBA increase.³⁵ Project implementation would construct up to 1,100 beds for on campus student housing. The Project would be consistent with the existing assumptions evaluated under the 2007 LRDP for student housing and would serve the planned student population on campus. By providing additional on-campus housing, the Project would shift students who would commute from off-campus locations to on-campus residences. As such, the proposed Project is not anticipated to significantly change roadway traffic volumes. Therefore, because the proposed Project would not generate sufficient traffic to result in a permanent 3-dBA increase in ambient noise levels, noise impacts associated with traffic would be less than significant.

LRDP Amendment #5

The proposed Project would amend the existing 2007 LRDP land use designation to Student Housing to allow for the proposed student apartment buildings on both Project sites. Although the Project proposes to amend the 2007 LRDP to Student Housing, the proposed LRDP Amendment #5 would not increase student enrollment or faculty/staff populations beyond what was analyzed in the 2007 LRDP and its subsequent amendments. The LRDP EIR analyzed the noise impacts for the entire Campus area, which includes the proposed Project. The noise analysis included in the LRDP EIR was based on the regulatory requirements and noise generation factors resulting from land uses proposed as a part of the LRDP. As shown above, residential development would not result in significant impacts with implementation of LRDP EIR MM Noi-2A. The LRDP Amendment #5 would accommodate anticipated planned growth and would reduce associated vehicle emissions due to fewer vehicle trips and shorter trip lengths by providing residential development on the campus and reducing the need to travel from off-site locations (refer to *Section 4.14, Population and Housing*). Therefore, the Project would be consistent with the growth projections in the 2007 LRDP and the goals and policies in the UCI Strategic Plan.

4.13b *Generation of excessive groundborne vibration or groundborne noise levels?*

Less than Significant Impact. Increases in groundborne vibration levels attributable to the proposed Project would be primarily associated with short-term construction-related activities. The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations in their 2018 *Transit Noise and Vibration Impact Assessment Manual*. The types of construction vibration impacts include human annoyance and building damage.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 in/sec) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly

³⁵ According to the California Department of Transportation, *Technical Noise Supplement to Traffic Noise Analysis Protocol* (September 2013), it takes a doubling of traffic to create a noticeable (i.e., 3 dBA) noise increase.

above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.5 in/sec is considered safe and would not result in any construction vibration damage. This evaluation uses the FTA architectural damage criterion for continuous vibrations at non-engineered timber and masonry buildings of 0.2 inch-per-second peak particle velocity (PPV) and human annoyance criterion of 0.4 inch-per-second PPV in accordance with California Department of Transportation (Caltrans) guidance.³⁶

Table 26: Typical Construction Equipment Vibration Levels, lists vibration levels at 25 feet and 30 feet for typical construction equipment. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As indicated in **Table 26**, based on FTA data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from 0.003 to 0.21 in/sec PPV at 25 feet from the source of activity.

The nearest off-site structure is the student housing located approximately 30 feet to the west of Site B. As shown in **Table 26**, at 30 feet, construction equipment vibration velocities would not exceed 0.160 in/sec PPV, which is below the FTA's 0.2 PPV threshold and Caltrans' 0.4 in/sec PPV threshold for human annoyance. It is also acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest off-site structure. Additionally, once operational, the Project would not be a source of groundborne vibration. Therefore, vibration impacts associated with the proposed Project would be less than significant.

Table 26: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 30 Feet (in/sec) ¹
Vibratory compactor/roller	0.210	0.160
Large bulldozer	0.089	0.068
Loaded trucks	0.076	0.058
Jackhammer	0.035	0.027
Small Bulldozer/tractors	0.003	0.002
1. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$, where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i> , 2018; D = the distance from the equipment to the receiver.		
Source: Federal Transit Administration, 2018, <i>Transit Noise and Vibration Impact Assessment Manual</i> .		

³⁶ California Department of Transportation, April 2020, *Transportation and Construction Vibration Guidance Manual*, Table 20.

4.13c *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?*

Less Than Significant Impact. The nearest airport is the John Wayne Airport located approximately 2.64-miles to the northwest of the Project site. According to the *John Wayne Airport 2019 Annual 60-75 (5 dB intervals) CNEL Noise Contours*, the Project site is located outside the 60 dBA CNEL noise contour for John Wayne Airport. Therefore, the Project would not expose people residing or working in the Project area to excessive airport- or airstrip-related noise levels and no mitigation is required.

LRDP EIR Mitigation Measures

Noi-1A: Prior to project design approval for future projects that implement the 2007 LRDP and include noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), UCI shall ensure that the project design will adhere to the following state noise standards: 60 dBA CNEL (single-family campus housing); 65 dBA CNEL (multi-family campus housing, dormitories, lodging); and 70 dBA CNEL (classrooms, libraries, clinical facilities). Applicable project design features may include, but are not limited to, the following:

- i. Specific window treatments, such as dual glazing, and mechanical ventilation when the 45 dBA CNEL limit within habitable rooms and the 50 dBA CNEL limit within classrooms can only be achieved with a closed window condition.
- ii. Setbacks; orientation of usable outdoor living spaces, such as balconies, patios, and common areas, away from roadways; and/or landscaped earthen berms, noise walls, or other solid barriers.

Noi-1B: As early as possible in the planning process of future projects that implement the 2007 LRDP and would include new or modified stationary noise sources such as utility plant facilities (constant noise source), major HVAC systems (constant noise source), and parking structures (constant and/or intermittent noise source), UCI shall ensure they are designed in a manner that would minimize the exposure of noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities) to noise levels that exceed the following state noise standards: 60 dBA CNEL (single-family campus housing); 65 dBA CNEL (multifamily campus housing, dormitories, lodging); and 70 dBA CNEL (classrooms, libraries, clinical facilities). If the affected noise-sensitive land uses are already exposed to noise levels in excess of these standards, then the new or modified stationary noise sources shall not increase the ambient noise level by more than 3 dBA. These criteria shall be achieved by:

- i. Implementing the following noise reduction measures into the design of the satellite utilities plant, as applicable:
 - Use low-speed fans, baffles, mufflers, or other mechanical system design features to reduce emitted noise;
 - Increase the distance from the noise source to sensitive receptors with setbacks;

- Place equipment inside buildings or within solid enclosures;
 - Construct earthen berms, noise walls, or other solid barriers for noise attenuation;
 - Eliminate glass, louvers, openings, or vents in the exterior walls of the plant, particularly those facing noise-sensitive land uses. If openings are necessary, install acoustical louvers or baffles on project components at all exterior openings;
 - Install silencers on the intake and exhaust system;
 - Place cooling towers as close to plant buildings as possible to utilize the buildings as noise barriers; and
 - Install integrated noise barriers on the sides of cooling towers.
- ii. Implementing the following noise reduction measures into the design of new major HVAC systems, as applicable:
- Install acoustical shielding (parapet wall or near-field noise barrier) around all new equipment; and
 - Place equipment below grade in basement space.
- iii. Implementing the following noise reduction measures into the design of new parking structures:
- Incorporate architectural design features that attenuate noise including solid panels at locations facing noise-sensitive land uses; and
 - Construct earthen berms, noise walls, or other solid barriers between noise sensitive land uses and parking structures.

Noi-2A: Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall approve contractor specifications that include measures to reduce construction/demolition noise to the maximum extent feasible. These measures shall include, but are not limited to, the following:

- i. Noise-generating construction activities occurring Monday through Friday shall be limited to the hours of 7:00 am to 7:00 pm, except during summer, winter, or spring break at which construction may occur at the times approved by UCI.
- ii. Noise-generating construction activities occurring on weekends in the vicinity of (can be heard from) off-campus land uses shall be limited to the hours of 9:00 am to 6:00 pm on Saturdays, with no construction occurring on Sundays or holidays.
- iii. Noise-generating construction activities occurring on weekends in the vicinity of (can be heard from) on-campus residential housing shall be limited to the hours of 9:00 am to 6:00 pm on Saturdays, with no construction on Sundays or holidays. However, as determined by UCI, if on-campus residential housing is unoccupied (during summer, winter, or spring break, for example), or would otherwise be unaffected by construction noise, construction may occur at any time.

- iv. Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise-reduction devices to minimize construction-generated noise.
- v. Stationary construction noise sources such as generators, pumps or compressors shall be located at least 100 feet from noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), as feasible.
- vi. Laydown and construction vehicle staging areas shall be located at least 100 feet from noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), as feasible.
- vii. All neighboring land uses that would be subject to construction noise shall be informed at least two weeks prior to the start of each construction project, except in an emergency situation.
- viii. Loud construction activity such as jackhammering, concrete sawing, asphalt removal, pile driving, and large-scale grading operations occurring within 600 feet of a residence or an academic building shall not be scheduled during any finals week of classes. A finals schedule shall be provided to the construction contractor.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.14 POPULATION AND HOUSING

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

Discussion

Population and housing issues are discussed in Section 4.10 of the LRDP EIR.

4.14a 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 Impact. According to the LRDP EIR, because the growth in UCI's population would account for a small proportion of the planned growth of the region and a small proportion of the construction of new housing, implementation of the 2007 LRDP would not directly induce substantial population growth which would adversely affect the physical environment. In addition, implementation of the 2007 LRDP is not expected to indirectly induce population growth by expanding infrastructure, removing an obstacle to growth, or encouraging the growth of industry. The LRDP EIR concluded impacts would be less than significant.

Both Project sites are currently designated Academic & Support in the 2007 LRDP. Therefore, LRDP Amendment #5 would be required to redesignate both sites to Student Housing to allow development of the proposed student housing buildings, which would include up to 1,100 beds. Implementation of the 2007 LRDP and subsequent LRDP Student Housing Amendment (2019) anticipated a student housing capacity of up to 22,000 beds, which was approved by the Regents on September 18, 2019. There are currently 18,076 existing beds on the UCI Campus. The proposed Project would include construction of up to 1,100 beds across the two sites, increasing on-campus student housing to 19,176 beds. Therefore, the Project would be within the 22,000 bed capacity and accordingly consistent with student housing buildout assumptions as analyzed in the 2007 LRDP EIR and its subsequent amendments. As such, the proposed Project would not generate population growth and instead serve the existing and planned student population as projected in the 2007 LRDP and its subsequent amendments.

Additionally, in order to operate the student apartment buildings, it is anticipated approximately 20 new staff would be hired, 10 per site. This is significantly less than 0.1 percent of the existing on-campus

population and within the faculty and staff population capacity previously analyzed in the LRDP EIR. Thus, the additional staff is not considered a substantial increase over what was previously assumed or analyzed in the 2007 LRDP or its EIR. Therefore, the Project would not directly or indirectly induce substantial unplanned population growth, and impacts would be less than significant in this regard.

4.14b Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The LRDP EIR concluded that projects implemented under the 2007 LRDP would not result in the displacement of existing housing because development is limited to UCI-owned property and would not interfere with the number of existing housing units on Campus and therefore impacts would be less than significant.

No existing housing would be demolished during construction, and instead the Project would construct additional student housing on the campus. Therefore, the proposed Project would not displace people or housing that would require the construction of replacement housing elsewhere and no impact would occur.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.15 PUBLIC SERVICES

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:					
a) Would the project 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?				X	
ii) Police protection?				X	
iii) Schools?				X	
iv) Parks?				X	
v) Other public facilities?					X

Discussion

Public services issues are discussed in Section 4.11 of the LRDP EIR.

4.15a Would the project 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 Impact. The Orange County Fire Authority (OCFA) provides fire protection and emergency medical services to the UCI campus and the Project sites. The primary responder serving the campus, OCFA Fire Station #4, is located north of the campus on the corner of California and Harvard Avenue. According to the LRDP EIR, implementation of the 2007 LRDP would not impact the service capacity of Fire Station #4, but would increase demand at Fire Station #28, along with other regional growth in the vicinity, to a level that would require new facilities or substantial alterations to existing facilities. The LRDP EIR concluded that with compliance to applicable safety and fire protection regulations, California building and fire codes, and the UCI Emergency Management Plan, impacts would be less than significant.

OCFA would continue to provide fire protection services to both Project sites. The proposed Project would include all necessary ingress and egress for traffic circulation and emergency

response and would comply with all applicable requirements for construction, access, water mains, fire flows, and life safety requirements. In addition, the proposed Project would be required to comply with applicable safety and fire protection regulations, California building and fire codes, and the UCI Emergency Management Plan. Consistent with the campus' standard procedures, the UCI Fire Marshal reviews and approves all individual development plans prior to construction to ensure that adequate fire flows would be maintained, an adequate number of fire hydrants would be provided in the appropriate locations, and circulation and design features would allow adequate emergency vehicle access. The Project includes LRDP Amendment #5 which would accommodate a land use designation change on both sites from Academic & Support to Student Housing. While the proposed student housing use would result in more people on each site compared to existing conditions, it is not anticipated to result in a substantial adverse effect on OCFA's ability to serve residents as the Project would not exceed the LRDP's assumed development capacity of 22,000 total beds and therefore would not generate unplanned population growth. Therefore, the proposed Project would not result in the need for new fire protection facilities, the construction of which would result in significant adverse effects, in order to maintain acceptable response times, service ratios, or other performance objectives. Impacts would be less than significant in this regard.

ii) Police protection?

Less Than Significant Impact. The UCI Police Department (UCIPD) is located in the Public Services Building (PSB) on the East Campus. The UCIPD provides all police services including patrol, traffic, investigations, community engagement, crime prevention and suppression, and security services for the campus. According to the LRDP EIR, as campus population increases as a result of implementation of the 2007 LRDP, UCI would increase the number of officers within the UCI Police Department, which may require the construction of additional police service facilities, which would undergo separate environmental review. The LRDP EIR concluded that impacts would be less than significant.

Project site B is located directly north of the UCI PSB, where UCIPD is located. As discussed above and in *Section 4.14, Population and Housing*, the proposed Project would not result in substantial unplanned population growth, thus would not result in a substantial increase in demand for police services. There are no current plans to expand or construct additional police facilities on the campus, and the Project would not require any new police facilities, the construction of which could result in impacts on the environment. Therefore, impacts to police services would be less than significant and no mitigation is required.

iii) Schools?

Less Than Significant Impact. The Irvine Unified School District (IUSD) provides kindergarten through grade 12 (k-12) public education services for school age children residing on or near the UCI campus. According to the LRDP EIR, the increase of school-age children living on-campus as a result of implementation of the 2007 LRDP would not require the construction of additional schools because the increase attributable to the 2007 LRDP would be a small proportion to the number of children enrolled in the (IUSD). The LRDP EIR concluded that impacts would be less than significant.

The Project consists of new undergraduate student apartments and would not result in new faculty housing, nor would it result in a direct increase of the population, or require any new schools, the construction of which could result in an impact on the environment. Therefore, the proposed Project would not require the need for new off-campus educational facilities and impacts to school services would be less than significant. No mitigation is required.

iv) Parks?

Less Than Significant Impact. According to the LRDP EIR, implementation of the 2007 LRDP would include construction and expansion of recreational facilities (including park facilities) that may have an adverse physical effect on the environment. The LRDP EIR concluded that impacts would be less than significant with the implementation of recommended LRDP mitigation measures.

As discussed in *Section 4.14, Population and Housing*, the proposed Project would not result in substantial unplanned population growth, such that a significant demand for park facilities would occur beyond what was planned for and analyzed in the LRDP EIR and following approved LRDP amendments. Existing on-campus recreational facilities located throughout the campus include Aldrich Park, Crawford Athletics Complex, and the Anteater Recreation Center and would have sufficient capacity to support the proposed Project. Overall, Project implementation would not result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities, need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives. Further, because no park facilities exist on the Project sites, the Project would not conflict with existing park structures or require modification of park facilities. Therefore, impacts to parks would be less than significant and no mitigation is required.

v) Other public facilities?

No Impact. According to the LRDP EIR, no other public services were identified in the 2007 LRDP. The LRDP EIR concluded no impacts would result in this regard.

The proposed Project would not increase student enrollment nor generate new employment beyond what was planned for in the 2007 LRDP and analyzed in the LRDP EIR and subsequent amendments. Furthermore, public facilities, such as libraries, exist on-campus and Project implementation would not result in the need for the construction of new facilities within the surrounding community. Therefore, no impact would occur to other public facilities.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.16 RECREATION

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) 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?				X	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?					X

Discussion

Recreation issues are discussed in Section 4.12 of the LRDP EIR.

4.16a 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 Impact. According to the LRDP EIR, while implementation of the 2007 LRDP would increase the campus population and the use of on-campus recreational facilities, good management and active maintenance would minimize deterioration of such facilities. A significant increase in use of off-campus facilities is not expected and the LRDP EIR concluded that impacts would be less than significant.

As discussed in *Section 4.14, Population and Housing*, the Project's proposed student housing buildings would not generate substantial unplanned population growth or employment opportunities and would instead serve the existing and planned population identified and analyzed in the 2007 LRDP EIR and its subsequent amendments. Therefore, the proposed Project would not substantially increase staff populations or result in an increase in any other populations on the campus, such as student, faculty, or off-campus users, and construction of the proposed Project would not result in accelerated deterioration of recreational uses on or off- campus. In addition, campus and community populations have access to on-campus recreational facilities, including the Anteater Recreation Center, Aldrich Park, and Crawford Athletics Complex. As discussed above, the LRDP EIR assumed that the current level of maintenance of campus recreational facilities would continue, and that substantial facility deterioration would not occur. Therefore, implementation of the proposed 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. Impacts to would be less than significant.

4.16b Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. According to the LRDP EIR, implementation of the 2007 LRDP would include construction and expansion of recreational facilities that may have an adverse physical effect on the environment. The LRDP EIR concluded that impacts related to construction of new recreational facilities would be less than significant with the implementation of applicable LRDP EIR mitigation measures.

As discussed in *Section 4.14, Population and Housing*, the proposed student housing buildings would not generate unplanned population growth and instead serve the existing and planned student population as projected in the 2007 LRDP and its subsequent amendments. The proposed Project would not include any new recreational facilities and would not result in unplanned population growth that could increase the use of existing and planned recreational facilities on campus, such that the construction or expansion of recreational facilities would be required. Therefore, no impact would occur in this regard.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.17 TRANSPORTATION

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				X	
b) Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?				X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?					X
d) Result in inadequate emergency access?					X

Discussion

Transportation and traffic issues are discussed in Section 4.13 of the LRDP EIR, which is based on the Traffic Study prepared by Austin-Foust Associates, Inc. (now Stantec Consulting Services, Inc.) in 2007. A project-level VMT Screening Analysis was prepared by Kimley-Horn, Inc. and is included as **Appendix G**.

4.17a Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact.

The Project would be located on the UCI Campus and utilize existing on-campus roadways for Project access. Site A would utilize two full access driveways on Adobe Circle. The existing driveway further west on Adobe Circle would remain, the eastern driveway would be shifted approximately 100 feet west compared to its existing location. Site B would utilize one existing full access driveway located on Adobe Circle and construct one new full access driveway off East Peltason Drive, exclusively providing access to the gated PSB surface parking lot for UCIPD use. All elements of vehicle access (i.e., size, configuration, lane widths, striping, signage) would be designed and constructed in compliance with UCI Campus Design Standards. The Project would not require modification of surrounding roadway circulation systems.

Existing bus transit around the Project sites include UCI's Anteater Express bus routes, Orange County Transportation Authority (OCTA) bus routes, and the City of Irvine's iShuttle routes. Anteater Express is UCI's bus transit system that provides transportation to various areas on and off the UCI Campus. OCTA provides bus transit services all throughout Orange County. OCTA has partnered with UCI's Parking and Transportation Services Office to offer UCI students the University Pass, which allows the students to enjoy unlimited regular OCTA bus transit service throughout Orange County. The iShuttle is operated and managed by OCTA and provides a first and last mile transportation option in the City of Irvine. iShuttle

routes start at the Tustin and Irvine Metrolink stations (times to meet the train schedule) and stop at places near major employment, retail, and residential areas such as the Irvine Business Complex area, John Wayne Airport, and Irvine Spectrum. While the iShuttle does not directly stop at the UCI campus, students can take an OCTA bus stop to transfer to an iShuttle stop, if needed. The nearest transit facilities are Anteater Express lines A, M, and N and OCTA routes 167 and 79 which all run along Campus Drive. The nearest transit stop to Site A is Anteater Express A line shuttle stop Campus - California (108) which is located on the west side California Avenue just north of the intersection with Adobe Circle adjacent to Site A. The nearest transit stop to Site B is OCTA stop Campus – East Peltason (3247) which is located on the south side of Campus Drive just east of the intersection with E Peltason Drive adjacent to Site B.

Existing bicycle and pedestrian facilities in the Project vicinity include existing sidewalks and on-street bike trails on Adobe Circle, E Peltason Drive, and California Avenue, with the exception of a sidewalk along Project site A frontage on Adobe Circle.

To further reduce potential for transportation impacts within the campus, UCI administers an extensive program of Transportation Demand Management (TDM) measures that encourage commuters to use alternate modes of transportation, including walking, bicycling, carpooling, vanpooling, and riding the UCI shuttle, other local shuttle systems, train, or bus. The Project would not require the removal of any transit routes or bicycle paths and would not hinder implementation of TDM measures on the campus. The Project would include pedestrian/bicycle pathways and on-site amenities for pedestrian/bicyclists including bike storage areas. Accessible pedestrian pathways, per CBC Title 24, would be provided linking the proposed Project with existing pedestrian pathways at the perimeters of the sites. The Project includes construction of a new sidewalk along Site A frontage along Adobe Circle, which would provide connectivity to the existing surrounding facilities. Crosswalk and sidewalk improvements at the East Peltason Drive and Periera Drive intersection would be included to enhance pedestrian access to the Academic Core. Thus, the proposed Project would not conflict with a roadway circulation system or alternative transportation plans, policies, and programs. Impacts would be less than significant and no mitigation is required.

4.17b Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

Less Than Significant Impact. This impact threshold was modified since the LRDP EIR were prepared. As such, this impact threshold was not discussed in the LRDP EIR.

The Steinberg Act (SB 743) (also known as the Environmental Act) was enacted in 2013 to shift the focus of transportation analysis from driver delay to reducing GHG emissions, creating multimodal networks, and promoting mixed land uses. SB 743 required the Governor’s Office of Planning and Research (OPR), now named the Governor’s Office of Land Use and Climate Innovation (LCI), to amend the CEQA Guidelines to provide alternative level of service metrics for transportation impact evaluations. In January 2019, the Natural Resources Agency finalized updates to the CEQA Guidelines including the incorporation of the SB 743 modifications. The CEQA Guidelines shift traffic analysis from delay and operations to vehicle miles traveled (VMT) when evaluating transportation impacts under CEQA.

For the purposes of this analysis UCI has elected to use the threshold of significance for VMT established by the City of Irvine which surrounds the campus. In March 2023, the City of Irvine released an update to their Traffic Study Guidelines that was established for use in the implementation of SB 743 within the City. The City’s VMT Guidelines provide details on appropriate screening thresholds than can be used to

presume a less than significant impact without conducting a more detailed level analysis. According to the City's VMT Guidelines, if a Project meets the CEQA Addendum, Small Project, Transit Oriented, Affordable Housing, or Local-Serving screening thresholds, the project is presumed to result in a less than significant VMT impact. The proposed Project would not meet the CEQA Addendum, Small Project, Affordable Housing, or Local-Serving screening thresholds, refer to **Appendix G: VMT Analysis**, for further information on screening categories.

The proposed Project qualifies for the Transit Priority Area screening criteria. Transit Priority Area development is defined by the City of Irvine guidelines as a project located within one-half mile of an existing rail transit station or located within one-half mile of two or more existing bus routes with a frequency of service interval of 15-minutes or less during the morning and evening peak hours.

As noted above, the Anteater Express is UCI's bus transit system that provides less than 15-minute headways on all three lines (A, M, and N) between the hours of 7:00 AM and 7:00 PM and has more than two stops within one-half mile of either Project site. These three lines meet the City's definition of high-quality transit in that they provide less than 15-minute headways during the peak hours of the day. See **Appendix G** for additional background on the Project's applicability with screening criteria. Therefore, the proposed Project qualifies for the Transit Oriented screening criteria and is presumed to have a less than significant transportation impact. The Project would not conflict or be inconsistent with CEQA Guidelines §15064.3(b), impacts would be less than significant.

4.17c 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. The LRDP EIR determined that implementation of the 2007 LRDP is anticipated to increase vehicular traffic on-and off-campus. However, design features would be compatible with existing campus transportation plans and adjacent land uses. Therefore, the LRDP EIR concluded no impacts would occur from hazards due to design features or incompatible land uses.

The proposed Project would not result in any substantial changes to any existing transportation network nor would it introduce any hazards to the existing circulation system, such as sharp curves, dangerous intersections, or incompatible uses. All drive aisles would accommodate standard fire lane turning radiuses and hammerhead turnaround maneuvers for emergency vehicles and fire services. Project driveways and internal circulation improvements would be designed and constructed in compliance with the UCI Campus Design Standards, Designated Campus Fire Marshal (DCFM), and Orange County Fire Authority (OCFA) requirements and standards. The proposed Project would be developed adjacent to compatible uses and does not include the use of any incompatible vehicles or equipment, such as farm equipment. Therefore, compliance with existing requirements and standards would ensure the Project would not increase hazards due to a geometric design feature or incompatible uses and no impact would occur.

4.17d Result in inadequate emergency access?

No Impact. The LRDP EIR determined that implementation of the 2007 LRDP is subject to review by the UCI Fire Marshal. Prior to final plan approval, the Fire Marshal reviews all projects to ensure, among other things, that adequate fire and emergency access is designed into the projects. Through compliance with UCI Fire Marshall Review, the LRDP concluded no impact would occur.

As noted above, the proposed Project would design and construct driveway entrances and interior drive aisles to accommodate standard fire lane turning radiuses and hammerhead turnaround maneuvers in compliance with DCFM and OCFA requirements. Additionally, the Project would not require the complete closure of any public or private streets or roadways during construction. Temporary construction activities would not impede the use of the road for emergencies or emergency response vehicles access. All roadway and lane closures during construction would be reviewed by the UCI Fire Marshal prior to construction to ensure adequate emergency access at all times. Therefore, Project implementation would not result in inadequate emergency access and no impact would occur.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.18 TRIBAL CULTURAL RESOURCES

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

Discussion

The LRDP EIR was prepared before Assembly Bill 52 (AB 52) and the tribal notification process was a requirement and was included in the CEQA Guidelines and Checklist. As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. AB 52 amended CEQA to require that: 1) a lead agency provide notice to any California Native American tribes that have requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Accordingly, AB 52 applies to

projects with a Notice of Preparation (NOP) or notice of a Negative Declaration (ND) or Mitigated Negative Declaration (MND) issued on or after July 1, 2015. On September 27, 2016, the California Office of Administrative Law approved the amendments to Appendix G of the CEQA Guidelines, and these amendments are addressed within this Initial Study.

4.18a Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

Less Than Significant Impact. This impact threshold was modified since the LRDP EIR were prepared. As such, this impact threshold was not discussed in the LRDP EIR.

As detailed above in Response 4.5(a), no historic resources listed or eligible for listing in a State or local register of historic resources are located on-site. Therefore, no impacts related to historic tribal cultural resources defined in Public Resources Code §5020.1(k) would occur in this regard.

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

Less Than Significant With Project-Level Mitigation Incorporated. This impact threshold was modified since the LRDP EIR were prepared. As such, this impact threshold was not discussed in the LRDP EIR.

In compliance with AB 52 and SB 18, UCI distributed letters notifying each Native American tribal representative that requested to be on UCI's list for the purposes of AB 52 and/or were identified by the California Native American Heritage Commission (NAHC) as having potential interest in projects in the area, providing them the opportunity to consult with UCI regarding the proposed Project. The AB 52 and SB 18 letters were distributed by certified mail on March 4, 2025. UCI received one request from the Gabrieleño Band of Mission Indians Kizh Nation for formal consultation, including recommended mitigation measure language. UCI responded to the request and consultation was conducted via a phone meeting in which it was concluded that the TCR-1 mitigation measure language would be applicable for this project, which includes on-site tribal monitoring.

As discussed in *Section 4.5, Cultural Resources*, potential impacts in regard to previously unidentified archaeological resources would be mitigated to less than significant levels through implementation of LRDP EIR MM Cul-1C, which would require UCI to retain a qualified archaeologist (and, if necessary, a culturally-affiliated Native American) to monitor any ground-disturbing activities in areas of identified archaeological sensitivity. Additionally, the Project

would implement project-level Mitigation Measure TCR-1, which would provide specific procedures to be taken if human remains and/or tribal cultural resources are discovered. With the implementation of LRDP EIR MM Cul-1C and project-level MM TCR-1, potential impacts to tribal cultural resources would be reduced to a less than significant level.

LRDP EIR Mitigation Measures

Implementation of LRDP EIR MM Cul-1C is required, refer to *Section 4.5, Cultural Resources*.

Project-Level Mitigation Measures

TCR-1: If subsurface deposits believed to be cultural or human in origin, or tribal cultural resources, are discovered during construction all work shall halt within a 50-foot radius of the discovery, the Construction Manager shall immediately notify UCI Physical and Environmental Planning. The Construction Manager shall also immediately coordinate with the tribal monitor and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology and subject to approval by UCI to evaluate the significance of the find and develop appropriate management recommendations. All management recommendations shall be provided to UCI in writing for UCI's review and approval. If recommended by the qualified professional and consulting tribes, and approved by UCI, this may include modification of the no work radius.

The professional archaeologist must make a determination, based on professional judgement and supported by substantial evidence, within one business day of being notified, as to whether or not the find represents a cultural resource or has the potential to be a tribal cultural resource. The subsequent actions will be determined by the type of discovery, as described below. These include: 1) a work pause that, upon further investigation, is not actually a discovery and the work pause was simply needed in order to allow for closer examination of soil (a "false alarm"); 2) a work pause and subsequent action for discoveries that are clearly not related to tribal cultural resources, such as can and bottle dumps, artifacts of European origin, and remnants of built environment features; and 3) a work pause and subsequent action for discoveries that are likely related to tribal cultural resources, such as midden soil, bedrock mortars, groundstone, or other similar expressions.

Whenever there is question as to whether or not the discovery represents a tribal resource, culturally affiliated tribes shall be consulted in making the determination. The following processes shall apply, depending on the nature of the find, subject to the review and approval of UCI:

- **Response to False Alarms:** If the professional archaeologist in consultation with the tribal representative determines that the find is negative for any cultural indicators, then work may resume immediately upon notice to proceed from UCI's representative. No further notifications or tribal consultation is necessary, because the discovery is not a cultural resource of any kind. The professional archaeologist shall provide written documentation of this finding to UCI.

- Response to Non-Tribal Discoveries: If at the time of discovery a professional archaeologist and tribal representative determines that the find represents a non-tribal cultural resource from any time period or cultural affiliation, UCI shall be notified immediately, to consult on a finding of eligibility and implementation of appropriate treatment measures.
- Response to Tribal Discoveries: If the find represents a tribal or potentially tribal cultural resource that does not include human remains, the tribe and UCI shall be notified. UCI will consult with the tribe on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be either a Historical Resource under CEQA, as defined in §15064.5(a) of the CEQA Guidelines, or a Tribal Cultural Resource, as defined in §21074 of the Public Resources Code. Preservation in place is the preferred treatment, if feasible. Work shall not resume within a 50-foot radius until UCI, through consultation as appropriate, determines that the site either: 1) is not a Historical Resource under CEQA, as defined in §15064.5(a) of the CEQA Guidelines; or 2) not a Tribal Cultural Resource, as defined in §21074 of the Public Resources Code; or 3) that the treatment measures have been completed to its satisfaction.
- Response to Human Remains: If the find includes human remains, or remains that are potentially human, the construction supervisor or on-site archaeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641) and shall notify UCI and the Orange County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and Assembly Bill 2641 shall be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. Public Resources Code § 5097.94 provides structure for mediation through the NAHC if necessary. If no agreement is reached, UCI shall rebury the remains in a respectful manner where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the Orange County Clerk's Office (AB 2641). Work shall not resume within the no-work radius until UCI, through consultation as appropriate, determines that the treatment measures have been completed to its satisfaction.

4.19 UTILITIES AND SERVICE SYSTEMS

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

Discussion

Utilities and service systems issues are discussed in Section 4.14 of the LRDP EIR.

4.19a Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. According to the LRDP EIR, the 2007 LRDP would increase the demand for water and wastewater, thus requiring the construction of additional water and wastewater facilities,

which could impact the physical environment. In addition, the 2007 LRDP would increase the amount of impervious surface, which would require the construction of additional storm water facilities. As for energy consumption, compliance with the University of California Policy on Sustainable Practices would increase energy efficiency and reduce inefficient consumption of energy. However, the development of additional electricity and natural gas facilities, which would undergo additional environmental review, would result in impacts to the physical environment. The LRDP EIR concluded that impacts would be less than significant with the implementation of recommended LRDP EIR Mitigation Measures.

Water

The UCI campus is served by the Irvine Ranch Water District (IRWD). UCI uses potable water for drinking, sanitation, fire protection, heating, cooling, air conditioning, and research. Potable water is distributed to UCI from the IRWD potable water transmission system. The existing water distribution system serving the campus operates as a combined system for both domestic and fire water use.

Proposed Project Site A would connect to an existing UCI owned 12-inch water main in Adobe Circle for potable water, fire flow water, and irrigation water. Site B would connect to existing 12-inch water mains in Adobe Circle and East Peltason Drive for potable water and fire flow water. Site B would also connect to an existing 6-inch reclaimed water main in Peltason Drive for irrigation water. Project water connections would be made at the UCI-owned existing water main and would not connect to any IRWD-owned water mains. Water connections connect to UCI pipelines before connecting to IRWD pipelines at the campus boundaries. In addition, both sites would install and relocate fire hydrants, as necessary, within the project site in accordance with the Campus Design Standards and Designated Campus Fire Marshal (DCFM) requirements and standards. The proposed Project would maintain and/or provide fire hydrant spacing, hydrant types, and flow rates or residual pressures consistent with the provisions set forth by the DCFM and California Fire Code. Furthermore, the fire hydrants, fire department connections, domestic water laterals, backflow devices, and isolation and shut off valves would be provided for connection to the project as required by UCI. With compliance with these standards and codes, the project would not require or result in the relocation or construction of new or expanded water facilities which could cause significant environmental effects. A less than significant impact would occur in this regard.

Wastewater

Proposed Project Site A would connect to the existing UCI owned 15-inch sewer main located in Adobe Circle, and Site B would connect to a UCI owned 18-inch sewer main that would be relocated in Peltason Drive. The relocation of the sewer main would occur within an existing roadway and would be constructed in accordance with UCI Campus Design Standards. The project would utilize and modify existing on-campus infrastructure and would not require the construction of new off-site wastewater treatment facilities or expansion of existing treatment capacity. Furthermore, the relocation of the sewer main would not result in environmental effects beyond those associated with typical utility installation within previously disturbed areas. Accordingly, the project would not require or result in the relocation or construction of new or expanded wastewater facilities that could cause significant environmental effects, and impacts would be less than significant.

Stormwater

Both Project sites would construct new on-site storm drain system that would direct storm water runoff to surface drains and catch basins. Ultimately, Site A discharge would flow north to Campus Drive, entering

a catch basin east of the intersection of Campus Drive and E Peltason Drive and into a 51-inch reinforced concrete pipe (RCP) storm drain. Site A drainage could also be split to flow south to Adobe Circle, which would eventually enter a catch basin in Adobe Circle and flow into an approximately 7'x10' box pipe which cuts through the westerly neighboring site and runs to the north. Site B discharge would ultimately flow to an earthen open channel on the east side of the site, from there water would flow to a relocated 42-inch RCP storm drain which will connect into an existing UCI owned 48-inch RCP storm drain adjacent to Campus Drive.

The stormwater system would incorporate Low Impact Development strategies and Best Management Practices (BMPs) for treatment of all impervious area runoff, such as energy dissipators to reduce erosion, bioswales, flow-through planters, and modular wetlands. Peak flows during operation of the project would not exceed existing conditions and the drainage system would be designed to carry rainfall, including rainfall discharges from the buildings and roadways, from a 25-year storm per Orange County Flood Control District. Additionally, the storm drainage system would conform to the project-specific requirements and UCI Campus Design Standards. Therefore, implementation of the proposed storm drain improvements and BMPs would not require new or expanded storm water drainage facilities, other than those proposed on-site to support the proposed development. Impacts in this regard would be less than significant.

Electric Power, Natural Gas, Telecommunication

According to the LRDP EIR, the UCI campus, including the Project site, is served by the Southern California Gas Company for natural gas; Southern California Edison for electricity; and Cox Communications and/or AT&T for telecommunication and internet service.

The Project would construct an electrical system that would provide service to the proposed Project sites, including interior and exterior lighting, and power distribution systems. The electrical system would be designed with a focus on energy efficient systems to outperform the latest version of the California Building Energy Efficiency Standards and to achieve a Leadership in Energy and Environmental Design (LEED) Gold certification at a minimum. In addition, the project would install technology infrastructure to provide reliable access to the University's Information Technology resources including voice, data network, administrative computing, and student services. As discussed above, the proposed Project would install connections to existing infrastructure in Adobe Circle, which has sufficient capacity to support the project. The Project does not propose connection to or use of natural gas. As such, the project would not require new or expanded electric power or telecommunications facilities, other than those proposed on-site to support the Project. Impacts in this regard would be less than significant.

4.19b Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. According to the LRDP EIR, projected water demands as a result of implementation of the 2007 LRDP are consistent with IRWD's Urban Water Management Plan and would not change the Plan's conclusions with respect to water supply reliability. The IRWD would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. The LRDP EIR concluded that impacts would be less than significant.

The 2015 IRWD Urban Water Management Plan projects district-wide water supply availability and demand through 2035, which included the 2007 LRDP buildout. Under normal, dry, and multiple dry year

scenarios, IRWD has sufficient supplies to buffer against inaccuracies in demand projections, future changed in land use, or alterations in supply availability. The Project would implement the University of California Policy on Sustainable Practices, including compliance with the Green Building Design section. The Project would also be required to comply with water efficiency and water conservation standards in the current California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) and current California Green Building Standards Code.^{1,2} Furthermore, the proposed Project would include water-efficient features, such as low flow plumbing fixtures, irrigation to reduce water consumption, and low-water use vegetation for landscaping. The irrigation system would meet or exceed the State's Model Efficient Landscape Ordinance and UCI requirements for water-efficient landscapes, as well as LEED Glod standards. UCI continues to work with IRWD to reduce domestic water demand on campus consistent with UCI sustainability goals. In addition, as discussed in *Section 4.14, Population and Housing*, the proposed student apartment buildings would serve the existing student population and would not increase student enrollment or employment opportunities beyond what was planned for in the 2007 LRDP and analyzed in the LRDP EIR and subsequent amendments. Therefore, the proposed Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Project impacts would be less than significant in this regard.

4.19c Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. According to the LRDP EIR, the planned expansion of the Michaelson Water Recycling Plant (MWRP), which would undergo additional environmental review and continue to abide Industrial User Discharge Permit regulations, would have sufficient capacity to accommodate increases in wastewater generation as a result of implementation of the 2007 LRDP. The LRDP EIR concluded that impacts would be less than significant.

The MWRP currently treats up to 28 million gallons per day (mgd) of wastewater, and an additional upgrade to 33 mgd is scheduled to be completed in 2025. IRWD forecasts a total service area demand for wastewater treatment of 26.11 mgd by 2025, including the projected increase associated with full implementation of the 2007 LRDP. As the proposed Project is within the capacity assumed in the 2007 LRDP and analyzed in the LRDP EIR and its subsequent amendments, the Project would not increase the anticipated wastewater generated at the campus. Therefore, the MWRP would have sufficient capacity to accommodate the anticipated wastewater generation throughout the IRWD service area, including the proposed Project sites. Therefore, impacts would be less than significant in this regard.

4.19d Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. According to the LRDP EIR, since UCI would continue to administer its recycling and waste diversion program and an expansion of the Frank R. Bowman Landfill is likely, the landfill would have sufficient permitted capacity to accommodate the increase in solid waste generation as a result of implementation of the 2007 LRDP. Therefore, the LRDP EIR concluded that impacts pertaining to the generation of solid waste would be less than significant.

The Frank R. Bowerman Landfill is permitted to receive a daily maximum of 11,500 tons per day and has enough projected capacity to serve residents and businesses until approximately 2053. The Olinda Alpha Landfill and Prima Deshecha Landfill also serve the County of Orange, which are utilized if the Frank R. Bowerman Landfill reaches its daily capacity. Olinda Alpha Landfill permits 8,000 tons daily with an expected closure in 2030 and Prima Deshecha Landfill is scheduled to close in 2067 and permits 4,000 tons daily. Orange County Waste & Recycling and the three landfills are in compliance with the California Integrated Waste Management Act of 1989 (Assembly Bill 939), which requires each jurisdiction to maintain 15 years of solid waste disposal capacity.

As discussed in *Section 4.14, Population and Housing*, the Project would be within the student housing capacity and accordingly consistent with student housing buildout assumptions as analyzed in the 2007 LRDP EIR and its subsequent amendments. As such, the proposed Project would not generate population growth and instead serve the existing and planned student population as projected and analyzed in the 2007 LRDP EIR and its subsequent amendments. While the proposed Project would result in more people on each site compared to existing conditions, it would not result in unplanned population growth and therefore would not increase solid waste generation beyond what was previously analyzed under buildout of the 2007 LRDP EIR and its subsequent amendments. Based on this and the availability of disposal capacity for the area, 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. Impacts in this regard would be less than significant.

4.19e Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. According to the LRDP EIR, since UCI would continue to adhere to the University of California Policy on Sustainable Practices which requires waste diversion and recycling on all UC Campuses, implementation of the 2007 LRDP would comply with applicable laws and regulation related to solid waste. The LRDP EIR concluded that impacts would be less than significant.

The University of California is not subject to Assembly Bill 939 or other local agency regulations pertaining to solid waste management. Nonetheless, the University of California has adopted the University of California Policy on Sustainable Practices that requires campuses to undertake aggressive programs to reduce solid waste generation and disposal. As discussed above, the proposed Project would meet the requirements of the University of California Policy on Sustainable Practices, including compliance with the Green Building Design section. Therefore, the proposed Project and would not violate any federal or State management or reduction statutes or regulations related to solid waste. Impacts would be less than significant in this regard

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.20 WILDFIRE

Issues	Potentially Significant Issues	Project Impact Adequately Addressed in LRDP EIR	Less Than Significant with Project-level Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X	
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?					X
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?				X	
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?				X	

Discussion

Wildfire thresholds were added in the 2018 CEQA Guidelines Update, which became effective on December 28, 2018. As such, a Wildfire section was not specifically included in the LRDP EIR. However, many wildfire-related issues are discussed in Section 4.6, Hazards and Hazardous Materials, of the LRDP EIR.

4.20a *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. This impact threshold was modified since the LRDP EIR was prepared. As such, this impact threshold was not discussed in the LRDP EIR.

The Project sites are not located in or near a State Responsibility Area (SRA) or on lands classified as a Very High Fire Hazard Severity Zone (VHFHSZ). The nearest VHFHSZ is located approximately 0.8 miles east of Site A, around the east boundary of UCI's Campus. The University maintains a campus-wide Emergency Operations Plan (EOP) that establishes policies, procedures, and organizational infrastructure for the campus to address potential emergency scenarios, such as earthquake, active shooter, laboratory fire, cyber threat, public health emergency, hazardous waste spill or release, terrorism, civil disturbance,

and wildland fire.³⁷ The proposed Project would be consistent with surrounding uses (student housing) facilities, and would not result in additional hazards not previously addressed within the EOP.

Project construction would not require the complete closure of any public or private streets or roadways during construction. Temporary construction activities would not impede the use of the roadways for emergencies or emergency response vehicles access. In the event that roadways would need to be closed during Project construction, access by fire protection, ambulances, police, or other emergency vehicles would be maintained for the active construction zones and surrounding land uses. All road closures during construction would be reviewed by the UCI Fire Marshal, as discussed above in *Section 4.9, Hazards and Hazardous Materials*, to ensure adequate emergency access at all times. Therefore, the proposed Project would not substantially impair an adopted emergency response plan and impacts would be less than significant.

4.20b 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?

No Impact. This impact threshold was modified since the LRDP EIR were prepared. As such, this impact threshold was not discussed in the LRDP EIR.

As noted above, the Project sites are not located in or near a State Responsibility Area (SRA) or on lands classified as a Very High Fire Hazard Severity Zone (VHFHSZ). The nearest VHFHSZ is located approximately 0.8 miles east of Site A, around the boundary of UCI's campus. UCI, including the proposed Project sites, are located in a Local Responsibility Area (LRA) and the Orange County Fire Authority (OCFA) is responsible for fire prevention and suppression services. As shown in mapping by CalFire, the campus is not located in a VHFHSZ and the Project sites and all immediately surrounding areas are designated as non-VHFHSZ.³⁸ Therefore, the proposed Project would not exacerbate wildland fires risks, thereby exposing Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact would occur in this regard.

4.20c 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?

Less Than Significant Impact. This impact threshold was modified since the LRDP EIR were prepared. As such, this impact threshold was not discussed in the LRDP EIR.

As noted above, the Project sites are not located in or near a State Responsibility Area or a VHFHSZ. The Project sites are in an urbanized area and would connect to the existing infrastructure that currently serves the Project area. Therefore, the Project does not include installation or maintenance of associated infrastructure that would exacerbate fire risk. The Project would result in a less than significant impact in this regard.

³⁷ University of California Irvine, April 2023, *UC Irvine Emergency Operations Basic Plan*, Available at https://em.uci.edu/_pdf/emergency-operations-plan.pdf, Accessed February 2025.

³⁸ CalFire, 2024, *Fire Hazard Severity Zone Viewer*, Available at <https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/>, Accessed February 2025.

4.20d *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?*

Less Than Significant Impact. This impact threshold was modified since the LRDP EIR were prepared. As such, this impact threshold was not discussed in the LRDP EIR.

As discussed above, the Project sites are not located in or near a State Responsibility Area, a VHFHSZ, nor is it located within a hilly area or include slopes on-site. Therefore, proposed Project would not expose people or structures to significant risk, as a result of runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant.

LRDP EIR Mitigation Measures

No LRDP EIR Mitigation Measures apply.

Project-Level Mitigation Measures

No project-level Mitigation Measures are required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

4.21a *Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Less than Significant with Project-Level Mitigation Incorporated. As discussed throughout this Initial Study, the proposed Project does not have the potential to significantly degrade the quality of the environment or result in significant impacts to the environment that cannot be reduced to less than

significant following compliance with the established regulatory framework and the recommended mitigation measures.

As concluded in *Section 4.4, Biological Resources*, the proposed Project is located in an urbanized area on currently developed sites. The Project would implement Project level Mitigation Measure BIO-1, which would require a pre-construction nesting bird survey, to ensure removal of existing ornamental landscaping would not adversely impact nesting birds. Therefore, the Project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten or eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

As concluded in *Section 4.5, Cultural Resources*, the Project site's existing structures do not meet the criteria of "architecturally significant" or a "historic resource" under CEQA and there are no known cultural resources identified on either Project site. The Project would implement LRDP EIR Mitigation Measure Cul-1C, to ensure implementation would not result in a substantial adverse change in the significance of a previously unidentified archaeological resource. Therefore, the Project would not eliminate important examples of the major periods of California history or prehistory.

4.21b Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Impact Adequately Addressed in LRDP EIR. A significant impact may occur if a proposed Project, in conjunction with related projects, would result in impacts that are less than significant when viewed separately, but would be significant when viewed together. As concluded in Sections 4.1 through 4.20, the proposed Project would not result in any significant and unavoidable impacts in any environmental categories with implementation of existing regulatory requirements and/or Project-specific mitigation measures. Implementation of the LRDP EIR mitigation measures at the project-level would reduce the potential for the incremental effects of the proposed Project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects under the 2007 LRDP. Thus, potential impacts in this regard would be considered adequately addressed in the LRDP EIR.

4.21c Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Impact Adequately Addressed in LRDP EIR. Previous sections of this Initial Study reviewed the proposed Project's potential impacts related to aesthetics, air quality, noise, hazards and hazardous materials, transportation, and other issues. As concluded in these previous discussions, the proposed Project would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly, following conformance with the existing regulatory framework, and mitigation measures. Further, as a residential development, Project features would be designed to meet the needs of humans and are not anticipated to result in direct or indirect adverse effects. Impacts would be less than significant upon implementation of all applicable LRDP EIR mitigation measures detailed throughout.

5.0 REFERENCES

- California Air Pollution Control Officers Association. 2009. *Health Risk Assessments for Proposed Land Use Projects*.
- California Air Resources Board. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*.
<https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rrpfinal.pdf>. Accessed December 2024.
- California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. <https://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf>. Accessed December 2024.
- California Air Resources Board. 2022. *California's 2022 Climate Change Scoping Plan*.
<https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>. Accessed December 2024.
- California Air Resources Board. 2024. *Aerometric Data Analysis and Measurement System (ADAM): Top Four Summaries from 2021 to 2023*.
- California Air Resources Board. 2024. *Air Quality and Meteorological Information System*.
- California Air Resources Board. 2024. *Ambient Air Quality Standards*.
https://ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf. Accessed January 2025.
- California Air Resources Board. n.d. *Common Air Pollutants*.
<https://ww2.arb.ca.gov/resources/common-air-pollutants>. Accessed March 2025.
- California Department of Forestry and Fire Protection (CAL FIRE). 2026. *Fire Hazard Severity Zone Viewer*. <https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/>. Accessed March 2026.
- California Department of Transportation. 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf>. Accessed January 2025.
- California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed January 2025.
- California Geological Survey. 2025. *Earthquake Zones of Required Investigation*.
<https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/>. Accessed March 2025.
- California State Highway Scenic Mapping Program. n.d. *State Scenic Highways*.
<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed February 2023.
- City of Irvine. 2015. *City of Irvine General Plan*.
- City of Irvine. 2020. *City of Irvine Municipal Code*. Codified through Ordinance No. 20-02.
- City of Irvine. 2024. *2045 General Plan Conservation and Open Space Element, Figure 10: Mineral, Oil, and Gas Resources*. <https://legacy.cityofirvine.org/civica/filebank/blobdload.asp?BlobID=35717>. Accessed February 2025.

- County of Orange. 2008. *Airport Environs Land Use Plan for John Wayne Airport*.
- County of Orange. 2019. *John Wayne Airport 2019 Annual CNEL Noise Contours (60–75 dB)*.
https://files.ocair.com/media/2021-02/JWA_AELUP-April-17-2008.pdf. Accessed January 2025.
- County of Orange. n.d. *Frank R. Bowerman Landfill*. <https://oclandfills.com/landfills/frank-r-bowerman-landfill>. Accessed February 2023.
- Department of Toxic Substances Control. 2026. *Hazardous Waste and Substances Site List (Cortese List)*.
<https://www.envirostor.dtsc.ca.gov>. Accessed March 2026.
- Federal Emergency Management Agency. n.d. *National Flood Hazard Layer Viewer*.
<https://www.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>. Accessed February 2025.
- Federal Highway Administration. 2006. *Roadway Construction Noise Model*.
- Federal Highway Administration. 2017. *Measurement, Prediction, and Mitigation of Highway Traffic Noise: Special Report*.
- Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment Manual*.
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed January 2025.
- Harris, Cyril M. 1994. *Noise Control in Buildings*.
- Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007: The Physical Science Basis*.
https://www.ipcc.ch/site/assets/uploads/2020/02/ar4-wg1-sum_vol_en.pdf. Accessed December 2024.
- Intergovernmental Panel on Climate Change. 2013. *Climate Change 2013: The Physical Science Basis*.
- Kariel, H.G. 1991. *Noise in Rural Recreational Environments*. *Canadian Acoustics* 19(5): 3–10.
- National Research Council. 2010. *Advancing the Science of Climate Change*.
- Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines*. <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>. Accessed December 2024.
- Orange County Fire Authority. n.d. *Standards of Cover*.
http://www.ocfa.org/Uploads/Orange%20County%20Fire%20Authority%20SOC_FINAL.pdf. Accessed February 2023.
- South Coast Air Quality Management District. 1993. *CEQA Air Quality Handbook*.
- South Coast Air Quality Management District. 2008. *Localized Significance Threshold Methodology*.
<https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>. Accessed January 2025.
- South Coast Air Quality Management District. 2009. *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*.
- South Coast Air Quality Management District. 2022. *Air Quality Management Plan*.
<https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp.pdf>. Accessed December 2024.

- Southern California Association of Governments. 2024. *Connect SoCal 2024 Regional Transportation Plan/Sustainable Communities Strategy*. <https://scag.ca.gov/sites/default/files/2024-05/23-2987-connect-socal-2024-final-complete-040424.pdf>. Accessed January 2025.
- University of California. 2020. *Storm Water Management Plan*. https://www.ehs.uci.edu/enviro/storm-water/_pdf/UCI_SWMP.pdf. Accessed February 2025.
- University of California. 2024. *Policy on Sustainable Practices*. <https://policy.ucop.edu/doc/3100155/SustainablePractices>. Accessed January 2025.
- University of California, Irvine. 2007. *Long Range Development Plan*. <https://planningandsustainability.uci.edu/environmental/campus-feir.php>. Accessed January 2025.
- University of California, Irvine. 2016. *Climate Action Plan*. <https://sustainability.uci.edu/climate-and-energy/>. Accessed January 2025.
- University of California, Irvine. 2018. *Green and Gold Plant List*. <https://planningandsustainability.uci.edu/Green-and-Gold-Plants-6-13-18.docx.pdf>. Accessed April 2026.
- University of California, Irvine. 2023. *Strategic Plan*. https://strategicplan.uci.edu/wp-content/uploads/2023/06/UCI23_Strategic-Plan_spring23_230606.pdf. Accessed December 2024.
- University of California, Irvine. 2023. *Emergency Operations Basic Plan*. https://em.uci.edu/_pdf/emergency-operations-plan.pdf. Accessed February 2025.
- U.S. Environmental Protection Agency. 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*.
- U.S. Environmental Protection Agency. 2010. *Methane and Nitrous Oxide Emissions from Natural Sources*.
- U.S. Environmental Protection Agency. 2014. *Policy Assessment for the Review of the Lead National Ambient Air Quality Standards*. https://www3.epa.gov/ttn/naaqs/standards/pb/data/140501_pa_pb_fin.pdf. Accessed January 2025.
- U.S. Environmental Protection Agency. 2018. *Overview of Greenhouse Gases*.
- U.S. Environmental Protection Agency. 2024. *National Ambient Air Quality Standards Table*. https://ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf. Accessed January 2025.
- U.S. Environmental Protection Agency. 2025. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2022*. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>. Accessed January 2025.
- U.S. Environmental Protection Agency. 2025. *Nonattainment Areas for Criteria Pollutants*.