

A tall, slender clock tower with a perforated facade, illuminated from within, set against a twilight sky. The tower has a central clock face and is flanked by two smaller clock faces. The background shows silhouettes of trees and a clear sky with a gradient from orange to blue.

University of California, Riverside 2021 Long Range Development Plan

Draft Environmental Impact Report
State Clearinghouse No. 2020070120

July 2021

University of California, Riverside 2021 Long Range Development Plan

Draft Environmental Impact Report
State Clearinghouse No. 2020070120

prepared for
University of California, Riverside
Stephanie Tang, Campus Environmental Planner
Planning, Design & Construction
1223 University Avenue, Suite 240
Riverside, California 92507

prepared with the assistance of
Rincon Consultants, Inc.
Sally Schifman, Consultant Project Manager
1980 Orange Tree Lane, Suite 105
Redlands, California 92374

July 2021



Table of Contents

Executive Summary	ES-1
Project Synopsis	ES-1
Project Location	ES-1
Background	ES-2
2021 LRDP EIR Objectives	ES-2
Project Characteristics	ES-3
Alternatives	ES-4
Environmentally Superior Alternative	ES-7
Areas of Known Controversy/Issues to be Resolved	ES-7
Summary of Impacts and Mitigation Measures	ES-9
References	ES-58
1 Introduction	1-1
1.1 Project Overview	1-1
1.2 Purpose and Legal Authority	1-2
1.3 Scope of this EIR	1-2
1.4 Environmental Review Process	1-4
1.5 Draft EIR Content	1-5
1.6 List of Abbreviations	1-6
2 Project Description	2-1
2.1 Project Background	2-1
2.2 Campus Population	2-2
2.3 2021 LRDP Overview	2-3
2.3.1 2021 LRDP Planning Context	2-3
2.3.2 2021 LRDP EIR Objectives	2-3
2.3.3 Facility Growth, Location, and Redevelopment/Demolition	2-4
2.3.4 Proposed 2021 LRDP Campus Land Use Designations	2-6
2.3.5 Facilities Development	2-10
2.3.6 Open Space	2-17
2.3.7 Mobility	2-21
2.3.8 Sustainable Development and Utilities	2-23
2.4 LRDP Implementation	2-24
2.4.1 Development Review Process	2-24
2.4.2 Tiering Under CEQA	2-25
2.4.3 University of California Policies	2-26
2.4.4 Non-UC Policies, Laws, and Regulations	2-26
2.4.5 Required Approvals	2-26
2.5 References	2-28
3 Environmental Setting	3-1
3.1 Regional Setting	3-2
3.2 Campus Location and Setting	3-2
3.2.1 UCR Campus	3-2
3.2.2 Surrounding Land Uses	3-6

3.3	Existing Campus Conditions	3-6
3.3.1	UCR Development and Growth	3-6
3.3.2	On-Campus Housing	3-8
3.3.3	Recreation, Entertainment, and Student Life Facilities	3-8
3.3.4	UCR Botanic Gardens.....	3-9
3.3.5	Campus Access, Circulation, and Parking	3-9
3.3.6	Campus Utilities and Service Systems	3-12
3.4	References	3-14
4	Environmental Impact Analysis	4-1
	Scope of the Environmental Impact Analysis	4-1
	General Format of the Environmental Analysis.....	4-2
	Cumulative Development	4-4
	References	4-10
4.1	Aesthetics.....	4.1-1
4.1.1	Environmental Setting	4.1-1
4.1.2	Regulatory Setting	4.1-40
4.1.3	Environmental Impacts and Mitigation Measures	4.1-42
4.1.4	Cumulative Impacts	4.1-53
4.1.5	References	4.1-54
4.2	Agricultural Resources	4.2-1
4.2.1	Environmental Setting	4.2-1
4.2.2	Regulatory Setting	4.2-4
4.2.3	Environmental Impacts and Mitigation Measures	4.2-6
4.2.4	Cumulative Impacts	4.2-10
4.2.5	References	4.2-11
4.3	Air Quality	4.3-1
4.3.1	Environmental Setting	4.3-1
4.3.2	Regulatory Setting	4.3-8
4.3.3	Environmental Impacts and Mitigation Measures	4.3-18
4.3.4	Cumulative Impacts	4.3-45
4.3.5	References	4.3-46
4.4	Biological Resources.....	4.4-1
4.4.1	Environmental Setting	4.4-1
4.4.2	Regulatory Setting	4.4-21
4.4.3	Environmental Impacts and Mitigation Measures	4.4-26
4.4.4	Cumulative Impacts	4.4-45
4.4.5	References	4.4-46
4.5	Cultural Resources	4.5-1
4.5.1	Environmental Setting	4.5-1
4.5.2	Regulatory Setting	4.5-36
4.5.3	Environmental Impacts and Mitigation Measures	4.5-42
4.5.4	Cumulative Impacts	4.5-50
4.5.5	References	4.5-51
4.6	Energy	4.6-1
4.6.1	Environmental Setting	4.6-1
4.6.2	Regulatory Setting	4.6-11
4.6.3	Environmental Impacts and Mitigation Measures	4.6-21

4.6.4	Cumulative Impacts	4.6-37
4.6.5	References	4.6-38
4.7	Geology and Soils	4.7-1
4.7.1	Environmental Setting	4.7-1
4.7.2	Regulatory Setting	4.7-12
4.7.3	Environmental Impacts and Mitigation Measures	4.7-17
4.7.4	Cumulative Impacts	4.7-28
4.7.5	References	4.7-30
4.8	Greenhouse Gas Emissions	4.8-1
4.8.1	Environmental Setting	4.8-1
4.8.2	Regulatory Setting	4.8-15
4.8.3	Environmental Impacts and Mitigation Measures	4.8-24
4.8.4	Cumulative Impacts	4.8-44
4.8.5	References	4.8-44
4.9	Hazards and Hazardous Materials	4.9-1
4.9.1	Environmental Setting	4.9-1
4.9.2	Regulatory Setting	4.9-12
4.9.3	Environmental Impacts and Mitigation Measures	4.9-28
4.9.4	Cumulative Impacts	4.9-41
4.9.5	References	4.9-43
4.10	Hydrology and Water Quality	4.10-1
4.10.1	Environmental Setting	4.10-1
4.10.2	Regulatory Setting	4.10-22
4.10.3	Environmental Impacts and Mitigation Measures	4.10-33
4.10.4	Cumulative Impacts	4.10-45
4.10.5	References	4.10-47
4.11	Noise	4.11-1
4.11.1	Environmental Setting	4.11-1
4.11.2	Regulatory Setting	4.11-11
4.11.3	Environmental Impacts and Mitigation Measures	4.11-14
4.11.4	Cumulative Impacts	4.11-32
4.11.5	References	4.11-33
4.12	Population and Housing	4.12-1
4.12.1	Environmental Setting	4.12-1
4.12.2	Regulatory Setting	4.12-13
4.12.3	Environmental Impacts and Mitigation Measures	4.12-16
4.12.4	Cumulative Impacts	4.12-23
4.12.5	References	4.12-26
4.13	Public Services	4.13-1
4.13.1	Environmental Setting	4.13-1
4.13.2	Regulatory Setting	4.13-7
4.13.3	Environmental Impacts and Mitigation Measures	4.13-12
4.13.4	Cumulative Impacts	4.13-21
4.13.5	References	4.13-22
4.14	Recreation	4.14-1
4.14.1	Environmental Setting	4.14-1
4.14.2	Regulatory Setting	4.14-8
4.14.3	Environmental Impacts and Mitigation Measures	4.14-12

4.14.4	Cumulative Impacts	4.14-20
4.14.5	References	4.14-21
4.15	Transportation	4.15-1
4.15.1	Environmental Setting	4.15-1
4.15.2	Regulatory Setting	4.15-13
4.15.3	Environmental Impacts and Mitigation Measures	4.15-21
4.15.4	Cumulative Impacts	4.15-35
4.15.5	References	4.15-37
4.16	Tribal Cultural Resources	4.16-1
4.16.1	Environmental Setting	4.16-1
4.16.2	Regulatory Setting	4.16-5
4.16.3	Environmental Impacts and Mitigation Measures	4.16-7
4.16.4	Cumulative Impacts	4.16-13
4.16.5	References	4.16-13
4.17	Utilities and Service Systems	4.17-1
4.17.1	Environmental Setting	4.17-1
4.17.2	Regulatory Setting	4.17-11
4.17.3	Environmental Impacts and Mitigation Measures	4.17-23
4.17.4	Cumulative Impacts	4.17-39
4.17.5	References	4.17-44
4.18	Wildfire.....	4.18-1
4.18.1	Environmental Setting	4.18-1
4.18.2	Regulatory Setting	4.18-7
4.18.3	Environmental Impacts and Mitigation Measures	4.18-16
4.18.4	Cumulative Impacts	4.18-25
4.18.5	References	4.18-26
5	Other CEQA Required Discussions.....	5-1
5.1	Significant and Unavoidable Adverse Impacts.....	5-1
5.2	Significant and Irreversible Environmental Changes	5-2
5.3	Growth Inducing Impacts.....	5-3
5.3.1	Population and Housing Growth	5-4
5.3.2	Economic Growth	5-5
5.3.3	Removal of Obstacles to Growth.....	5-6
5.4	References	5-6
6	Alternatives.....	6-1
6.1	Introduction	6-1
6.2	Summary of Significant and Unavoidable Impacts	6-2
6.3	Attainment of Project Objectives.....	6-3
6.4	Alternatives Considered but Rejected	6-4
6.5	Alternatives Selected for Analysis.....	6-5
6.5.1	Alternative 1: No Project Alternative	6-7
6.5.2	Alternative 2: Reduced Development Program.....	6-20
6.5.3	Alternative 3: Increased Student Housing.....	6-27
6.5.4	Alternative 4: No Agricultural Land Development	6-33
6.6	Comparison of Alternatives	6-39
6.7	Environmentally Superior Alternative	6-42

7 References 7-1

7.1 Bibliography 7-1

Executive Summary..... 7-1

Project Description..... 7-1

Environmental Setting 7-1

Environmental Impact Analysis..... 7-2

Aesthetics..... 7-3

Agriculture 7-4

Air Quality 7-5

Biological Resources..... 7-7

Cultural Resources 7-8

Energy 7-12

Geology and Soils..... 7-15

Greenhouse Gas Emissions 7-16

Hazards and Hazardous Materials 7-17

Hydrology and Water Quality 7-19

Noise 7-22

Population and Housing..... 7-24

Public Services..... 7-26

Recreation..... 7-28

Transportation 7-30

Tribal Cultural Resources 7-31

Utilities and Service Systems 7-32

Wildfire..... 7-34

Other CEQA 7-36

7.2 List of Preparers and Persons Consulted 7-36

Key Preparers..... 7-36

Persons Consulted..... 7-37

Tables

Table ES-1 NOP Comments ES-7

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts ES-10

Table 2-1 Baseline (2018/2019) and 2021 LRDP (2035/2036) Campus Population..... 2-3

Table 2-2 2005 LRDP versus 2021 LRDP Land Uses..... 2-7

Table 2-3 Existing and Proposed Campus Building Space 2-11

Table 2-4 Interim Projects 2-12

Table 2-5 Projected University-Affiliated Beds 2-15

Table 2-6 Anticipated Permits and Approvals for 2021 LRDP and Subsequent Implementation..... 2-27

Table 4-1 UCR Cumulative Projects List 4-5

Table 4-2 SCAG Projections for the City of Riverside, Moreno Valley, and the San Bernardino-Ontario-Riverside Region 4-7

Table 4.1-1 Summary of KVP Details 4.1-30

Table 4.2-1 UCR Existing Farmland..... 4.2-2

Table 4.3-1	Federal and State Ambient Air Quality Standards.....	4.3-2
Table 4.3-2	Ambient Air Quality at the Riverside-Rubidoux Monitoring Station.....	4.3-6
Table 4.3-3	Proposed 2021 LRDP Facility Types per CalEEMod User Guide	4.3-20
Table 4.3-4	SCAQMD Regional Significance Thresholds.....	4.3-24
Table 4.3-5	SCAQMD LSTs for Construction (SRA 23)	4.3-26
Table 4.3-6	Construction Emissions	4.3-31
Table 4.3-7	Project Operational Emissions.....	4.3-32
Table 4.3-8	Cancer Risk Results	4.3-40
Table 4.3-9	Chronic Health Risk Results	4.3-42
Table 4.3-10	Acute Health Risk Results	4.3-43
Table 4.4-1	Vegetation Types and Other Areas on the UCR Campus	4.4-4
Table 4.5-1	Evaluation Results, UCR Facilities Constructed through 1975	4.5-30
Table 4.6-1	California 2018 Total System Electric Generation.....	4.6-2
Table 4.6-2	RPU and California 2018 Power Mix.....	4.6-3
Table 4.6-3	RPU Service Area 2018 Electricity Consumption.....	4.6-4
Table 4.6-4	UCR 2018 Electricity Consumption.....	4.6-5
Table 4.6-5	Riverside County 2018 Natural Gas Consumption	4.6-6
Table 4.6-6	UCR 2018 Natural Gas Consumption.....	4.6-7
Table 4.6-7	Riverside County 2018 Gasoline and Diesel Consumption	4.6-8
Table 4.6-8	UCR 2018 Fuel Consumption	4.6-10
Table 4.6-9	Proposed 2021 LRDP Operational Mobile Energy Consumption	4.6-30
Table 4.6-10	Proposed 2021 LRDP Operational Stationary Energy Consumption	4.6-32
Table 4.6-11	Proposed 2021 LRDP Mitigated Operational Stationary Energy Consumption ..	4.6-34
Table 4.7-1	Regional Faults in Relation to UCR Campus	4.7-10
Table 4.8-1	Description of Greenhouse Gases of California Concern	4.8-4
Table 4.8-2	UCR 2018 GHG Emissions Inventory	4.8-10
Table 4.8-3	Proposed 2021 LRDP GHG Emissions by Scope and Year.....	4.8-34
Table 4.8-4	Comparison of Proposed 2021 LRDP Projected GHG Emissions Without Mitigation Against UCR Thresholds	4.8-35
Table 4.8-5	Scopes 1, 2, and 3 GHG Emissions On-campus Reduction Measures Quantification Summary	4.8-39
Table 4.10-1	Depth to Groundwater	4.10-15
Table 4.10-2	Santa Ana River Surface Water Pollutants and Contamination Categories	4.10-19
Table 4.10-3	RPU System Groundwater Contamination Levels (Regulated Chemicals)	4.10-21
Table 4.11-1	UCR Parking Structure 1 Noise Monitoring Results (Location A)	4.11-5
Table 4.11-2	UCR Glen Mor 2 Student Apartments Project Noise Monitoring Results (Location B).....	4.11-5
Table 4.11-3	CARB Southern California Consolidation Project Noise Monitoring Results (Location C).....	4.11-6
Table 4.11-4	UCR North District Development Plan Noise Monitoring Results (Location D) ..	4.11-6

Table 4.11 5 Existing Calculated Traffic Noise Levels..... 4.11-9

Table 4.11-6 Human Response to Transient Vibration 4.11-13

Table 4.11 7 AASHTO Maximum Vibration Levels for Preventing Damage 4.11-13

Table 4.11-8 Typical Construction Equipment Noise Levels 4.11-16

Table 4.11-9 Vibration Levels Measured during Construction Activities..... 4.11-17

Table 4.11-10 Existing and Future Traffic Volumes..... 4.11-19

Table 4.11-11 Noise Levels Generated by Truck Activity at Delivery Areas..... 4.11-20

Table 4.11-12 Traffic Noise Levels..... 4.11-25

Table 4.11 13 Screening Distances for Vibration-Sensitive Receiver Type and Source 4.11-30

Table 4.12-1 Population Projections for Residents Age 18-25 in California..... 4.12-1

Table 4.12-2 Regional City Population Forecast..... 4.12-3

Table 4.12-3 Regional Housing Forecast 4.12-4

Table 4.12-4 Regional Housing Vacancy Rates..... 4.12-5

Table 4.12-5 City of Riverside Housing Stock 4.12-6

Table 4.12-6 Fall Headcount Student Enrollment 4.12-7

Table 4.12-7 Academic Year 2018/2019 Total Campus Population 4.12-8

Table 4.12-8 Baseline (2018/2019) and Interim/Future UCR Student Housing Facilities 4.12-10

Table 4.12-9 Baseline UCR Campus Population Residence Distribution..... 4.12-11

Table 4.12-10 Campus Population Growth 4.12-20

Table 4.12-11 Proposed 2021 LRDP UCR-Affiliated Housing..... 4.12-20

Table 4.13-1 Nearest RFD Fire Stations to UCR..... 4.13-2

Table 4.13-2 On-Campus Housing Fire Statistics..... 4.13-4

Table 4.13-3 City of Riverside Public School Student Enrollment 2014-2018..... 4.13-5

Table 4.13-4 Public School Enrollment and Capacity 4.13-6

Table 4.13-5 School District Student Enrollment 4.13-6

Table 4.13-6 Estimate of School-Age Children of Campus Population (2018/2019) 4.13-14

Table 4.13-7 Estimate of School-Age Children of Campus Population (2035/2036) 4.13-19

Table 4.13-8 Public School Enrollment and Capacity 4.13-20

Table 4.15-1 Campus Baseline (2018) VMT Compared to Regional VMT Baseline (2018) 4.15-4

Table 4.15-2 Bicycle Facilities near UCR..... 4.15-8

Table 4.15-3 2018 Academic Year Transit Schedule to UCR 4.15-11

Table 4.15-4 Cumulative Project-Generated VMT 4.15-36

Table 4.15-5 WRCOG Region Cumulative Project Effect on VMT 4.15-37

Table 4.17-1 Current and Projected Cumulative RPU Water Supplies..... 4.17-2

Table 4.17-2 Existing Landfills 4.17-10

Table 4.17-3 Estimated Wastewater Flow 4.17-27

Table 4.17-4 RPU’s 2015 UWMP’s Projected Cumulative Demands for Potable and Raw Water..... 4.17-31

Table 4.17-5 UCR Potable Water Consumption 4.17-33

Table 4.17-6	RPU’s 2015 UWMP Water Supply in Single and Multiple Dry Years	4.17-35
Table 6-1	Impact Comparison of Alternatives.....	6-40

Figures

Figure 2-1	Proposed 2021 LRDP Land Use Map	2-5
Figure 2-2	Proposed Open Space Framework	2-18
Figure 2-3	Draft Circulation Framework.....	2-22
Figure 3-1	Regional Location	3-3
Figure 3-2	Local Setting	3-4
Figure 3-3	Aerial Map	3-5
Figure 3-4	Existing Campus Parking.....	3-11
Figure 4.1-1	Streets and Roadways Discussed in this Analysis.....	4.1-3
Figure 4.1-2	Northwesterly View of Citrus Orchards on West Campus with San Gabriel Mountains in the Background	4.1-6
Figure 4.1-3	View East from University Avenue, with University Village on Northeast Corner, I-215/SR 60 Visible in Middle Ground, and Box Springs Mountains Visible at Horizon.....	4.1-7
Figure 4.1-4	View of Landscaped Buffer between Parking Structure 1 and Valencia Hill Drive, North of Big Springs Road, Campus on Left, Residential Neighborhood on Right.....	4.1-8
Figure 4.1-5	Southerly View Toward Campus from Valencia Hill Drive with Multi-family Residential Units on Left and Landscaped Setback by Glen Mor Student Residences on the Right, Mountains Visible in the Background	4.1-9
Figure 4.1-6	Southeast Edge of East Campus, Showing Gentle Slopes that Characterize the Campus with Contrast between Urban Landscape and Brown Hill Slopes.....	4.1-9
Figure 4.1-7	Southeasterly View of Box Springs Reserve from Canyon Crest Drive and West Linden Street, across Parking Lot 24	4.1-11
Figure 4.1-8	Lothian Hall Looking Northeast	4.1-11
Figure 4.1-9	Pentland Hills Residence Complex Looking Northeast.....	4.1-12
Figure 4.1-10	Glen Mor Residential Complex Looking Southeast	4.1-12
Figure 4.1-11	Westerly View of Corporation Yard and Triangular Landscaped Area from Watkins Drive	4.1-13
Figure 4.1-12	Hinderaker Hall on the Western Part of East Campus, Looking Northeast.....	4.1-14
Figure 4.1-13	CHASS Interdisciplinary Building, Looking Northeast.....	4.1-14
Figure 4.1-14	Arts Building, Looking Southwest.....	4.1-15
Figure 4.1-15	Renovated Original Structure of The Barn, Looking Southwest.....	4.1-15
Figure 4.1-16	Addition to The Barn - Event Center and Restaurant, Looking East.....	4.1-16
Figure 4.1-17	UCR Bell Tower Looking North with Rivera Library Arches to the Right	4.1-17
Figure 4.1-18	Tomás Rivera Library and Arcade.....	4.1-17
Figure 4.1-19	West Side of Sproul Hall Looking Northeast	4.1-18
Figure 4.1-20	Olmstead Hall and University Theatre Looking Southwest.....	4.1-18

Figure 4.1-21 Arcade Arches to University Theatre Looking Southeast..... 4.1-19

Figure 4.1-22 Watkins Hall Breezeway Looking East 4.1-19

Figure 4.1-23 Pierce Hall Looking Northeast 4.1-20

Figure 4.1-24 HUB Courtyard Looking North, Box Springs Mountains Visible in Background .. 4.1-20

Figure 4.1-25 Physics Building and Winston Chung Hall Looking Northeast..... 4.1-22

Figure 4.1-26 Material Science and Engineering Building Looking Northeast 4.1-22

Figure 4.1-27 Psychology Building Looking Northeast 4.1-23

Figure 4.1-28 Anderson Hall and Chapman Hall Looking Northeast 4.1-23

Figure 4.1-29 Salinity Laboratory Viewed from Parking Lot 13 Looking Southeast 4.1-24

Figure 4.1-30 UCR Botanic Gardens Entry Looking East 4.1-25

Figure 4.1-31 Box Springs Mountains Viewed from Mount Vernon Drive, Looking
Northeast..... 4.1-26

Figure 4.1-32 Picnic Hill Naturalistic Open Space Looking East..... 4.1-27

Figure 4.1-33 Key Viewpoint Locations Around UCR..... 4.1-29

Figure 4.1-34 KVP 1: Corner of Chicago Avenue and Martin Luther King Boulevard Looking
Southeast Across Agricultural Fields of West Campus 4.1-31

Figure 4.1-35 KVP 2: Corner of Chicago Avenue and Martin Luther King Boulevard Looking
Northeast Across Agricultural Fields of West Campus with CARB Facility in the
Middle Ground 4.1-31

Figure 4.1-36 KVP 3: View East on Blaine Street with Stonehaven Apartments to the Left
of Image and the Baseball Field to the Right..... 4.1-32

Figure 4.1-37 KVP 4: West Linden Street East of Rustin Avenue Looking East..... 4.1-33

Figure 4.1-38 KVP 5: View from Canyon Crest Drive North of West Linden Street Looking
Southeast..... 4.1-33

Figure 4.1-39 KVP 6: Canyon Crest Drive at West Linden Street Looking Southwest 4.1-34

Figure 4.1-40 KVP 7: View South from West Linden Street toward Ropes Course by the
SRC..... 4.1-35

Figure 4.1-41 KVP 8: Canyon Crest Drive Looking Southwest with Bannockburn Village on
the Right and Parking Lot 24 on the Left..... 4.1-35

Figure 4.1-42 KVP 9: View Northeast on Canyon Crest Drive toward Amy S. Harrison
Athletic Field and Soccer Fields 4.1-36

Figure 4.1-43 KVP 10: Watkins Drive Looking Southwest toward Campus 4.1-37

Figure 4.1-44 KVP 11: Watkins Drive Looking Southwest toward Campus 4.1-38

Figure 4.2-1 UCR Campus Farmland Designations 4.2-3

Figure 4.3-1 TAC Emissions Sources – Baseline Scenario 4.3-22

Figure 4.3-2 New/Relocated TAC Emissions Sources – Future Scenario 4.3-23

Figure 4.4-1 MSHCP Criteria Cells..... 4.4-2

Figure 4.4-2 Vegetation Types and Other Areas 4.4-6

Figure 4.4-3 Areas of Potential Habitat for Special-Status Species 4.4-16

Figure 4.4-4 Potential Jurisdictional Waters..... 4.4-19

Figure 4.5-1 Overview of UCR Campus and Dates of Construction..... 4.5-4

Figure 4.5-2	Citrus fields (left), ca. 1890, and Gage Canal, (right) circa 1900	4.5-5
Figure 4.5-3	Horticulture Bldg. (Anderson Hall 1) and West Campus orchards, circa 1920.....	4.5-8
Figure 4.5-4	Dr. Stanley E. Flanders, UCR Citrus Experiment Station, 1953.....	4.5-10
Figure 4.5-5	Chancellor Rivera celebrating the Citrus Experiment Station’s 75 th anniversary, 1982, with Bob Soost (left) and James Cameron (right); Tracy Kahn, Citrus Variety Collection curator, with a Valentine pummelo, a grapefruit-like hybrid developed at UCR, 2019	4.5-11
Figure 4.5-6	First class at UCR, Tartan Yearbook, 1954.....	4.5-13
Figure 4.5-7	Riverside Daily Press supplement, February 1954, celebrating the inaugural semester at the new College of Letters and Sciences	4.5-13
Figure 4.5-8	Mario Savio gives speech in front of the Commons Building at UCR, 1969	4.5-14
Figure 4.5-9	Police during Protest, 1970	4.5-15
Figure 4.5-10	Students hold “Liberated Territory” sign at Riverside County Court House, 1970	4.5-16
Figure 4.5-11	Students before the City Council and holding signs on UCR campus, 1970.....	4.5-17
Figure 4.5-12	UCR Professors Maurice Jackson (left, 1925-1987) and Carlton Rowland Bovell (right, 1924-2019).....	4.5-20
Figure 4.5-13	Black Student Union Central Committee Members, 1969	4.5-21
Figure 4.5-14	Black Student Union President Charles Jenkins addresses group, N.D.	4.5-22
Figure 4.5-15	Carlos Cortés and UCR graduate students, 1971	4.5-24
Figure 4.5-16	Alberto Chavez, UCR Chicano Student Programs director, circa 1975 (left); Chicano Student Programs mural (right).....	4.5-25
Figure 4.5-17	Cesar Chavez at UCR’S Carillon Mall, October 1972, in MEChA-sponsored event.....	4.5-26
Figure 4.5-18	Tomás and Concepción Rivera, ca. 1980 (left); Rivera (second from right), speaking to President Ronald Reagan, Committee on Higher Education, 1983 (right)	4.5-27
Figure 4.5-19	In 1985, UCR renamed the main library to Rivera Library, in honor of Chancellor Rivera, the university’s first Mexican-American chancellor.....	4.5-27
Figure 4.5-20	UCR Pow Wow, 2012.....	4.5-29
Figure 4.5-21	Historic Resources Survey Results, UCR Campus	4.5-34
Figure 4.7-1	Geologic Units Underlying UCR Campus and Adjacent Areas	4.7-4
Figure 4.7-2	Liquefaction Zones Underlying the UCR Campus.....	4.7-8
Figure 4.7-3	Regional Earthquake Fault Lines	4.7-11
Figure 4.8-1	The Greenhouse Gas Effect	4.8-2
Figure 4.8-2	2018 U.S. GHG Emissions by Gas.....	4.8-8
Figure 4.8-3	2018 California GHG Emissions by Scoping Plan Sectors and Sub-Sectors	4.8-9
Figure 4.8-4	2018 UCR Emissions by Scope	4.8-11
Figure 4.8-5	UCR Forecasted Growth Comparison to Thresholds.....	4.8-41
Figure 4.10-1	Santa Ana River Watershed Boundary and Santa Ana River Reaches.....	4.10-2
Figure 4.10-2	Water Resources and Drainages On and Proximate to UCR Campus	4.10-5

Figure 4.10-3 University Arroyo Tributary Looking Southwest 4.10-6

Figure 4.10-4 East Campus Existing Drainage Conditions 4.10-7

Figure 4.10-5 Gage Canal Looking East in West Campus..... 4.10-8

Figure 4.10-6 RCFCWCD Stormwater Drainage Facilities On and Proximate to UCR
Campus 4.10-10

Figure 4.10-7 Flood Hazard Zones On and Proximate to UCR Campus 4.10-11

Figure 4.10-8 Riverside-Arlington Groundwater Subbasin Boundary 4.10-13

Figure 4.11-1 Noise Measurement Locations..... 4.11-7

Figure 4.12-1 Location of Campus Residence Halls 4.12-9

Figure 4.12-2 Campus Population Residence Distribution 4.12-12

Figure 4.14-1 UC Riverside Recreational Facilities 4.14-5

Figure 4.15-1 Regional and Local Roadways..... 4.15-2

Figure 4.15-2 Project Trip Distribution 4.15-5

Figure 4.15-3 Bicycle Facilities Near Campus 4.15-9

Figure 4.15-4 Transit Routes near Campus..... 4.15-12

Figure 4.15-5 Transit Priority Areas 4.15-23

Figure 4.17-1 Existing UCR Irrigation and Domestic Water System 4.17-4

Figure 4.17-2 Sanitary Sewer System 4.17-7

Figure 4.18-1 Area Fire Hazard Severity Zones..... 4.18-4

Appendices

Appendix A Notice of Preparation, Initial Study, and Scoping Comments

Appendix B LRDP Program Model

Appendix C Air Quality Supporting Information

Appendix D Biological Resources Constraints Report

Appendix E Cultural Resources Supporting Information

Appendix F Energy Supporting Information

Appendix G GHG Emissions Supporting Information

Appendix H Hazardous Chemical Inventory Site Maps

Appendix I Noise Supporting Information

Appendix J Transportation Impact Analysis

Appendix K Tribal Cultural Resources AB 52 Correspondence

This page intentionally left blank.