Draft Environmental Impact Report for the

Riverside Community Hospital Expansion Project

FEBRUARY 2014

PREPARED FOR:
City of Riverside
Community Development Department
Planning Division
3900 Main Street, Third Floor
Riverside, CA 92522

PREPARED BY:
DUDEK
3685 Main Street, Suite 250
Riverside, CA 92501

DRAFT

Environmental Impact Report for the Riverside Community Hospital Specific Plan Expansion Project

Prepared for:

City of Riverside
Community Development Department
3900 Main Street
Riverside, California 92522

FOR

Contact: Steve Hayes, City Planner

Prepared by:

DUDEK
3685 Main Street, Suite 250
Riverside, California 92501
Contact: Stephanie Standerfer

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TABLE OF CONTENTS

Section **Page No.**

EXECUTIVE SUMMARY ES-1
ES.1 Document Purpose ES-1
ES.2 Project Location ES-1
ES.3 Project Description ES-2
ES.3.1 Background ES-2
ES.3.2 Project Objectives ES-2
ES.3.3 Required Permits and/or Approval ES-3
ES.4 Summary of Environmental Impacts and Mitigation Measures ES-4
ES.5 Areas of Controversy/Issues to be Resolved ES-26
ES.6 Summary of Project Alternatives ES-27
ES.6.1 Alternatives Evaluated in Preparation of RCH Expansion Project ES-27
ES.6.2 Environmentally Superior Alternative ES-28

1.0 INTRODUCTION 1.0-1
1.1 Purpose and Scope 1.0-1
1.2 Compliance with CEQA 1.0-2
1.2.1 Format 1.0-2
1.2.2 Environmental Procedures 1.0-9
1.2.3 Incorporation by Reference 1.0-11
1.2.4 NOP Comment Letters, City Planning Commission Workshop 1.0-11

2.0 PROJECT DESCRIPTION 2.0-1
2.1 Project Location 2.0-1
2.2 Project Background and Objectives 2.0-1
2.2.1 Previous Approvals/History of Project Changes 2.0-2
2.2.2 Need for the Project 2.0-9
2.2.3 Project Objectives 2.0-9
2.3 Project Characteristics 2.0-10
2.3.1 California Environmental Quality Act Baseline 2.0-10
2.3.2 Project 2.0-12
2.3.3 Project Design Features and Construction Measures 2.0-17
2.4 Discretionary Actions 2.0-21
2.5 References 2.0-22

3.0 EFFECTS FOUND NOT TO BE SIGNIFICANT 3.0-1
3.1 Effects Found Not to Be Significant during Preparation of the Notice of Preparation (NOP) 3.0-1
3.2 Effects Found Not to Be Significant as Part of the EIR Process 3.0-3

3.3 Effects Found to Be Less Than Significant with Mitigation Measures Incorporated 3.0-4
3.4 Effects Found to Be Significant Even with Mitigation Measures Incorporated 3.0-4
3.5 References 3.0-4

4.0 ENVIRONMENTAL IMPACT ANALYSIS 4.0-1
4.1 Aesthetics 4.1-1
4.1.1 Setting 4.1-2
4.1.2 Thresholds of Significance 4.1-8
4.1.3 Project Elements That Can Reduce Impacts 4.1-9
4.1.4 Environmental Impacts Before Mitigation 4.1-10
4.1.5 Mitigation Measures 4.1-29
4.1.6 Environmental Impacts After Mitigation Is Incorporated 4.1-31
4.1.7 References 4.1-32
4.2 Air Quality 4.2-1
4.2.1 Setting 4.2-1
4.2.2 Thresholds of Significance 4.2-15
4.2.3 Project Elements That Can Reduce Impacts 4.2-19
4.2.4 Environmental Impacts Before Mitigation 4.2-19
4.2.5 Mitigation Measures 4.2-52
4.2.6 Environmental Impacts After Mitigation Is Incorporated 4.2-57
4.2.7 References 4.2-58
4.3 Biological Resources 4.3-1
4.3.1 Setting 4.3-1
4.3.2 Thresholds of Significance 4.3-5
4.3.3 Project Elements That Can Reduce Impacts 4.3-5
4.3.4 Environmental Impacts Before Mitigation 4.3-5
4.3.5 Mitigation Measures 4.3-6
4.3.6 Environmental Impacts After Mitigation Is Incorporated 4.3-7
4.3.7 References 4.3-7
4.4 Cultural Resources 4.4-1
4.4.1 Setting 4.4-2
4.4.2 Thresholds of Significance 4.4-15
4.4.3 Project Elements That Can Reduce Impacts 4.4-16
4.4.4 Environmental Impacts Before Mitigation 4.4-16
4.4.5 Mitigation Measures 4.4-25
4.4.6 Environmental Impacts After Mitigation Is Incorporated 4.4-27
4.4.7 References 4.4-27

4.5 Greenhouse Gases 4.5-1
4.5.1 Setting 4.5-1
4.5.2 Thresholds of Significance 4.5-14
4.5.3 Project Elements That Can Reduce Impacts 4.5-17
4.5.4 Environmental Impacts Before Mitigation 4.5-19
4.5.5 Mitigation Measures 4.5-27
4.5.6 Environmental Impacts After Mitigation Is Incorporated 4.5-27
4.5.7 References 4.5-28
4.6 Hazards and Hazardous Materials 4.6-1
4.6.1 Setting 4.6-1
4.6.2 Thresholds of Significance 4.6-19
4.6.3 Project Elements That Can Reduce Impacts 4.6-19
4.6.4 Environmental Impacts Before Mitigation 4.6-20
4.6.5 Mitigation Measures 4.6-25
4.6.6 Environmental Impacts After Mitigation Is Incorporated 4.6-26
4.6.7 References 4.6-26
4.7 Hydrology/Water Quality 4.7-1
4.7.1 Setting 4.7-1
4.7.2 Thresholds of Significance 4.7-10
4.7.3 Project Elements That Can Reduce Impacts 4.7-11
4.7.4 Environmental Impacts Before Mitigation 4.7-12
4.7.5 Mitigation Measures 4.7-19
4.7.6 Environmental Impacts After Mitigation Is Incorporated 4.7-19
4.7.7 References 4.7-19
4.8 Land Use and Planning 4.8-1
4.8.1 Setting 4.8-1
4.8.2 Thresholds of Significance 4.8-21
4.8.3 Project Elements That Can Reduce Impacts 4.8-21
4.8.4 Environmental Impacts Before Mitigation 4.8-21
4.8.5 Mitigation Measures 4.8-47
4.8.6 Environmental Impacts After Mitigation Is Incorporated 4.8-47
4.8.7 References 4.8-47
4.9 Noise 4.9-1
4.9.1 Setting 4.9-1
4.9.2 Thresholds of Significance 4.9-13
4.9.3 Project Elements That Can Reduce Impacts 4.9-13
4.9.4 Environmental Impacts Before Mitigation 4.9-14
4.9.5 Mitigation Measures 4.9-32

4.9.6 Environmental Impacts After Mitigation Is Incorporated 4.9-34
4.9.7 References 4.9-34
4.10 Traffic 4.10-1
4.10.1 Setting 4.10-1
4.10.2 Thresholds of Significance 4.10-16
4.10.3 Project Elements That Can Reduce Impacts 4.10-17
4.10.4 Environmental Impacts Before Mitigation 4.10-17
4.10.5 Mitigation Measures 4.10-36
4.10.6 Environmental Impacts After Mitigation Is Incorporated 4.10-37
4.10.7 References 4.10-40
4.11 Utilities and Service Systems 4.11-1
4.11.1 Setting 4.11-1
4.11.2 Thresholds of Significance 4.11-5
4.11.3 Project Elements That Can Reduce Impacts 4.11-5
4.11.4 Environmental Impacts Before Mitigation 4.11-6
4.11.5 Mitigation Measures 4.11-9
4.11.6 Environmental Impacts After Mitigation Is Incorporated 4.11-9
4.11.7 References 4.11-10
4.12 Energy Conservation 4.12-1
4.12.1 Setting 4.12-1
4.12.2 Thresholds of Significance 4.12-6
4.12.3 Project Elements That Can Reduce Impacts 4.12-6
4.12.4 Environmental Impacts Before Mitigation 4.12-8
4.12.5 Mitigation Measures 4.12-13
4.12.6 Environmental Impacts After Mitigation Is Incorporated 4.12-13
4.12.7 References 4.12-13

5.0 MANDATORY CEQA TOPICS 5.0-1
5.1 Introduction 5.0-1
5.1.1 Significant Unavoidable Environmental Effects 5.0-1
5.1.2 Significant Irreversible Changes 5.0-2

6.0 CUMULATIVE IMPACT ANALYSIS 6.0-1
6.1 Introduction 6.0-1
6.2 Cumulative Analysis Setting 6.0-1
6.3 Cumulative Forecasting Methodology 6.0-1
6.4 Assessment of Cumulative Impacts 6.0-3
6.4.1 Aesthetics 6.0-3
6.4.2 Air Quality 6.0-5
6.4.3 Biological Resources 6.0-9

6.4.4 Cultural Resources 6.0-10
6.4.5 Greenhouse Gas Emissions 6.0-11
6.4.6 Hazards and Hazardous Materials 6.0-12
6.4.7 Hydrology /Water Quality 6.0-14
6.4.8 Land Use and Planning 6.0-16
6.4.9 Noise 6.0-17
6.4.10 Traffic 6.0-19
6.4.11 Utilities and Service Systems 6.0-22
6.4.12 Energy Conservation 6.0-24
6.5 References 6.0-24

7.0 PROJECT ALTERNATIVES 7.0-1
7.1 introduction 7.0-1
7.2 Project objectives 7.0-1
7.3 Alternatives Considered but Rejected 7.0-2
7.4 Alternatives under consideration 7.0-6
7.5 Evaluation of Alternatives 7.0-25
7.6 Environmentally Superior Alternative 7.0-26
7.7 References 7.0-27

8.0 GROWTH-INDUCING IMPACTS 8.0-1
8.1 Environmental Impacts 8.0-1
8.2 References 8.0-2

9.0 LIST OF PREPARERS 9.0-1

APPENDICES

A Initial Study, Notice of Preparation, Notice of Preparation Comment Letters, and Community Planning Commission Workshop Minutes
B Air Quality and Greenhouse Gas Reports
C Biological Technical Memorandum
D Cultural/Historic Resources Report
E Hazards Report
F Riverside Public Utilities Letter
G Noise Technical Memorandum
H Utilities
I Traffic Impact Assessment and Parking Analysis
J Water Quality Management Plan
K Geotechnical Report
L Hydrology/Drainage Study

FIGURES

1.0-1 Regional Map 1.0-3
1.0-2 Vicinity Map 1.0-5
1.0-3 Site Plan 1.0-7
2.0-1 Regional Map 2.0-3
2.0-2 Vicinity Map 2.0-5
2.0-3 Site Plan 2.0-7
4.1-1 Architectural Rendering for Phase I Hospital Bed Tower 4.1-13
4.1-2 View of RCH Campus from City Hall 4.1-15
4.1-3 View from corner of Magnolia Avenue and 14th Street 4.1-17
4.1-4 View from Brockton Avenue and Raincross Medical Group Building 4.1-19
4.1-5 View from RCH Entrance on Magnolia Avenue 4.1-21
4.4-1 Site Plan 4.4-5
4.6-1 On-Site Hazards 4.6-9
4.7-1 On-Site and Municipal Drainage System 4.7-3
4.8-1 Site Plan – Baseline Conditions 4.8-5
4.8-2 Site Plan – Proposed Land Use Phase I 4.8-7
4.8-3 Site Plan – Proposed Land Use Phase II 4.8-11
4.8-4 Existing General Plan Land Use 4.8-17
4.8-5 Existing Zoning 4.8-45
4.9-1 Noise Measurement Locations 4.9-7
4.9-2 Noise/Land Use Noise Compatibility Criteria 4.9-9
4.9-3 Off-Site Sensitive Receptors 4.9-17
4.9-4 Site Plan 4.9-23
4.10-1 Project Study Area 4.10-7
4.10-2 Existing Lane Configuration and Traffic Control 4.10-9
4.10-3 Cumulative Projects Map 4.0-23
6.0-1 Cumulative Projects Map 6.0-7
7.0-1 Possible Alternative Site Locations 7.0-3

TABLES

ES-1 Summary of Environmental Impacts and Mitigation Measures ES-5
ES-2 Comparison of Impacts of the Alternatives ES-28
2.0-1 Existing RCH Uses on Site 2.0-2
2.0-2 Existing and Approved RCH Uses on Site – Baseline Conditions 2.0-11
2.0-3 Existing and Approved RCH Uses on Site, including Phase I of the Project 2.0-13
2.0-4 Existing and Approved RCH Uses on Site, Phase I, Phase IIa, and Phase IIb of the Project 2.0-16
2.0-5 Summary of Project Design Features and Construction Measures 2.0-18
2.0-6 Project Design Features to Reduce Greenhouse Gases 2.0-20
4.2-1 Ambient Air Quality Standards 4.2-8
4.2-2 SCAB Attainment Classification 4.2-13
4.2-3 Ambient Air Quality Data (parts per million unless otherwise indicated) 4.2-14
4.2-4 Frequency of Air Quality Standard Violations 4.2-15
4.2-5 SCAQMD Air Quality Significance Thresholds 4.2-16
4.2-6 Localized Significance Thresholds 4.2-18
4.2-7 Phase I Construction Equipment 4.2-23
4.2-8 Phase I Estimated Maximum Daily Construction Emissions (pounds/day unmitigated) 4.2-24
4.2-9 Phase IIa Construction Equipment 4.2-26
4.2-10 Phase IIa Estimated Maximum Daily Construction Emissions 4.2-27
4.2-11 Phase IIb Construction Equipment 4.2-30
4.2-12 Phase IIb Estimated Maximum Daily Construction Emissions 4.2-31
4.2-13 Baseline Conditions (Year 2014) Estimated Maximum Daily Operational Emissions (pounds/day unmitigated) 4.2-36
4.2-14 Phase I (Year 2017) Estimated Maximum Daily Operational Emissions (pounds/day unmitigated) 4.2-37
4.2-15 Phase I, Phase IIa, and Phase IIb (2030) Estimated Maximum Daily Operational Emissions (pounds/day unmitigated) 4.2-38
4.2-16 Sensitive Receptors 4.2-42
4.2-17 LST Modeling Results – Phase I 4.2-43
4.2-18 LST Modeling Results – Phase IIb 4.2-44
4.4-1 Archaeological Resources within 1 Mile of the Project 4.4-23
4.5-1 GHG Sources in California 4.5-2
4.5-2 Community GHG Emissions 4.5-3
4.5-3 Project Design Features – GHGs 4.5-17
4.5-4 Phase I Estimated Annual Construction GHG Emissions 4.5-20
4.5-5 Phase IIa Estimated Annual Construction GHG Emissions 4.5-20

4.5-6 Phase IIb Estimated Annual Construction GHG Emissions 4.5-21
4.5-7 Baseline Estimated Operational GHG Emissions 4.5-23
4.5-8 Phase I Estimated Operational GHG Emissions 4.5-23
4.5-9 Phase I, Phase IIa, and Phase IIb Estimated Operational GHG Emissions 4.5-24
4.5-10 Consistency with Green Action Plan Goals 4.5-26
4.6-1 Review of Historical Aerial Photographs 4.6-2
4.6-2 Review of Historical Topographic Maps 4.6-2
4.6-3 Review of Historical Sanborn Fire Insurance Maps and City Directory Listings .. 4.6-3
4.6-4 RCH Hazardous Materials Business Emergency Plan Chemical Inventory 4.6-4
4.6-5 2012 RCH Chemical Inventory 4.6-5
4.6-6 EPA Federal Sources Databases Searched 4.6-14
4.6-7 State Sources Databases Searched 4.6-16
4.7-1 Existing and Project Site Stormwater Calculations 4.7-16
4.8-1 Existing Riverside Community Hospital Uses on Site 4.8-2
4.8-2 Existing and Approved Riverside Community Hospital Uses on Site – Baseline Conditions 4.8-3
4.8-3 Existing and Approved Riverside Community Hospital Uses on Site (Phase I, Phase IIa, and Phase IIb) of the Project 4.8-13
4.8-4 Project's Consistency with City of Riverside General Plan 2025 ..... 4.8-22
4.8-5 Project's Consistency with City of Riverside Downtown Specific Plan 4.8-42
4.9-1 Typical Sound Levels in the Environment and Industry 4.9-3
4.9-2 Existing Average Daily Traffic 4.9-3
4.9-3 Measured Noise Levels 4.9-4
4.9-4 Exterior Noise Limits 4.9-11
4.9-5 Construction Equipment Noise Emission Levels 4.9-16
4.9-6 Short-Term (Construction) Noise Levels 4.9-19
4.9-7 Typical Noise Levels Resulting from Parking Lot Activities 4.9-22
4.9-8 Noise from On-Site Stationary Equipment 4.9-25
4.9-9 Project-Related Traffic Noise: Existing 4.9-26
4.9-10 Project-Related Traffic Noise: Year 2035 ..... 4.9-27
4.10-1 Level of Service Criteria for Signalized Intersections 4.10-6
4.10-2 Level of Service Criteria for Unsignalized Intersections 4.10-6
4.10-3 Existing Intersection Operations 4.10-11
4.10-4 Existing Conditions Roadway Operations 4.10-12
4.10-5 City of Riverside Intersection Level of Service Standards 4.10-15
4.10-6 City of Riverside Roadway Capacity Standards 4.10-16
4.10-7 Trip Generation – Phase I 4.10-18
4.10-8 Trip Generation – Phases IIa, IIb, and IIc 4.10-19
4.10-9 Existing Plus Phase I Intersection Operations 4.10-20

4.10-10 Existing Plus Phase I Roadway Operations 4.10-21
4.10-11 Year 2014 Cumulative Conditions Plus Phase I Intersection Operations..... 4.10-25
4.10-12 Year 2014 Cumulative Conditions Plus Phase I Roadway Operations 4.10-26
4.10-13 Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc Intersection Operations 4.10-28
4.10-14 Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc Roadway Operations 4.10-29
4.10-15 Year 2014 Cumulative Conditions Plus Phase I Plus Brockton Restriping Project Intersection Operations 4.10-32
4.10-16 Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc Plus Brockton Restriping Project Intersection Operations 4.10-33
4.10-17 Summary of Intersection Operations with Mitigation 4.10-39
4.11-1 Existing Landfills 4.11-2
4.11-2 Project Anticipated Solid Waste Generation 4.11-7
4.12-1 Project Design Features – Energy Reduction 4.12-6
6.0-1 Cumulative Projects 6.0-2
7.0-1 Summary of No Project Alternative Success at Meeting Project Objectives 7.0-11
7.0-2 Summary of Alternative 1 Success at Meeting Project Objectives 7.0-18
7.0-3 Summary of Alternative 2 Success at Meeting Project Objectives 7.0-24
7.0-4 Summary of Comparison of Alternatives Impacts..... 7.0-26

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EXECUTIVE SUMMARY

This section provides a summary of the Draft Environmental Impact Report (EIR) for the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project). Included in this summary are areas of known controversy and issues to be resolved, a summary of project alternatives, a summary of all project impacts and associated mitigation measures, and a statement of the ultimate level of significance after mitigation is applied.

ES.1 DOCUMENT PURPOSE

This Draft EIR has been prepared by the City of Riverside (City), as lead agency, to inform decision makers and the public of the potential significant environmental effects associated with the project. This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code, Section 21000 et seq.) and the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines; 14 CCR 15000 et seq.) published by the Public Resources Agency of the State of California and in accordance with the City's CEQA Guidelines.

The purpose of this EIR is to focus the discussion on those potential effects on the environment of the project which the lead agency has determined may be significant. In addition, feasible mitigation measures are recommended, when applicable, that could reduce significant environmental impacts or avoid significant environmental impacts.

ES.2 PROJECT LOCATION

The approximately 22.5-acre project site is located at 4445 Magnolia Avenue in Riverside, California, approximately 0.42 mile west of State Route 91 (SR 91) and approximately 1.60 miles south of SR 60. The site is bounded by 14th Street to the north, Brockton Avenue to the west, and Magnolia Avenue to the east. Evans Sports Complex, Tequesquite Avenue, and residential development are located to the south (Figure ES-1, Regional Map; Figure ES-2, Vicinity Map; Figure ES-3, Site Plan).

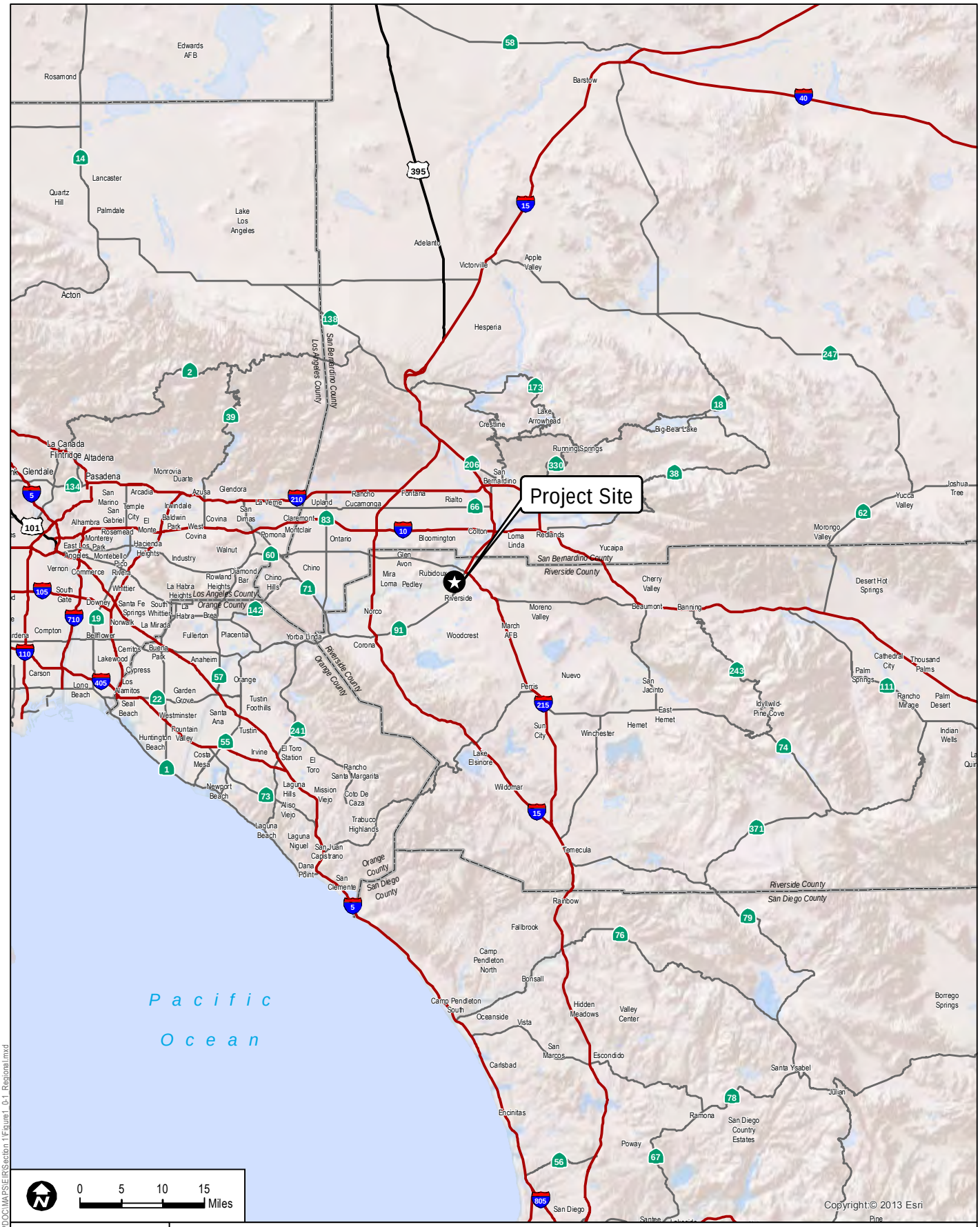
The uses adjacent to the project site are residences to the northwest; Grant Elementary School and a gas station to the north; muffler services to the northeast; Newman Park and Community Medical Group of Riverside to the east; Riverside City College to the southeast; Calvary Presbyterian Church, Evans Sports Complex, and residences to the south; and commercial and industrial uses to the west. Project location is further discussed in Chapter 2.0, Project Description, of this EIR.

ES.3 PROJECT DESCRIPTION

ES.3.1 Background

RCH opened in March 1925 after purchasing a 5-acre parcel and constructed a single-story, 85-bed hospital. A six-story patient care tower was added in 1965 under a conditional use permit (CUP), which grew the hospital to 325 beds. Other hospital-related facilities, including medical office buildings, a health education center, a women's services building, a storage building, parking structures, a HeartCare Institute, and emergency and surgical services, were developed between 1958 and 2002. RCH is owned and operated by an affiliate of Hospital Corporation of America. It is currently equipped with 373 beds and has approximately 1,960 employees, including over 500 highly trained physicians representing over 200 specialties.

The City of Riverside General Plan 2025 (GP 2025) land use designation for the RCH campus is Downtown Specific Plan (DSP) and is currently zoned Downtown Specific Plan–Health Care District (DSP–HC). RCH is proposing a Specific Plan (SP) on the hospital campus that will supersede the DSP–HC designation. As stated above, RCH currently operates under a CUP that dates back to the 1960s. Any future development and expansion would likewise require approval from the City. The proposed SP will make future development more streamlined in that it will supersede existing entitlements, outline existing uses and future uses, and lay out a cohesive set of guidelines that will provide City staff, RCH, and the public with a clear understanding of how growth and development will occur at the site. The use of the SP will allow City staff to expedite the entitlement processes for future development.



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7824-01

SOURCE: ESRI 2013

FIGURE ES-1
Regional Map

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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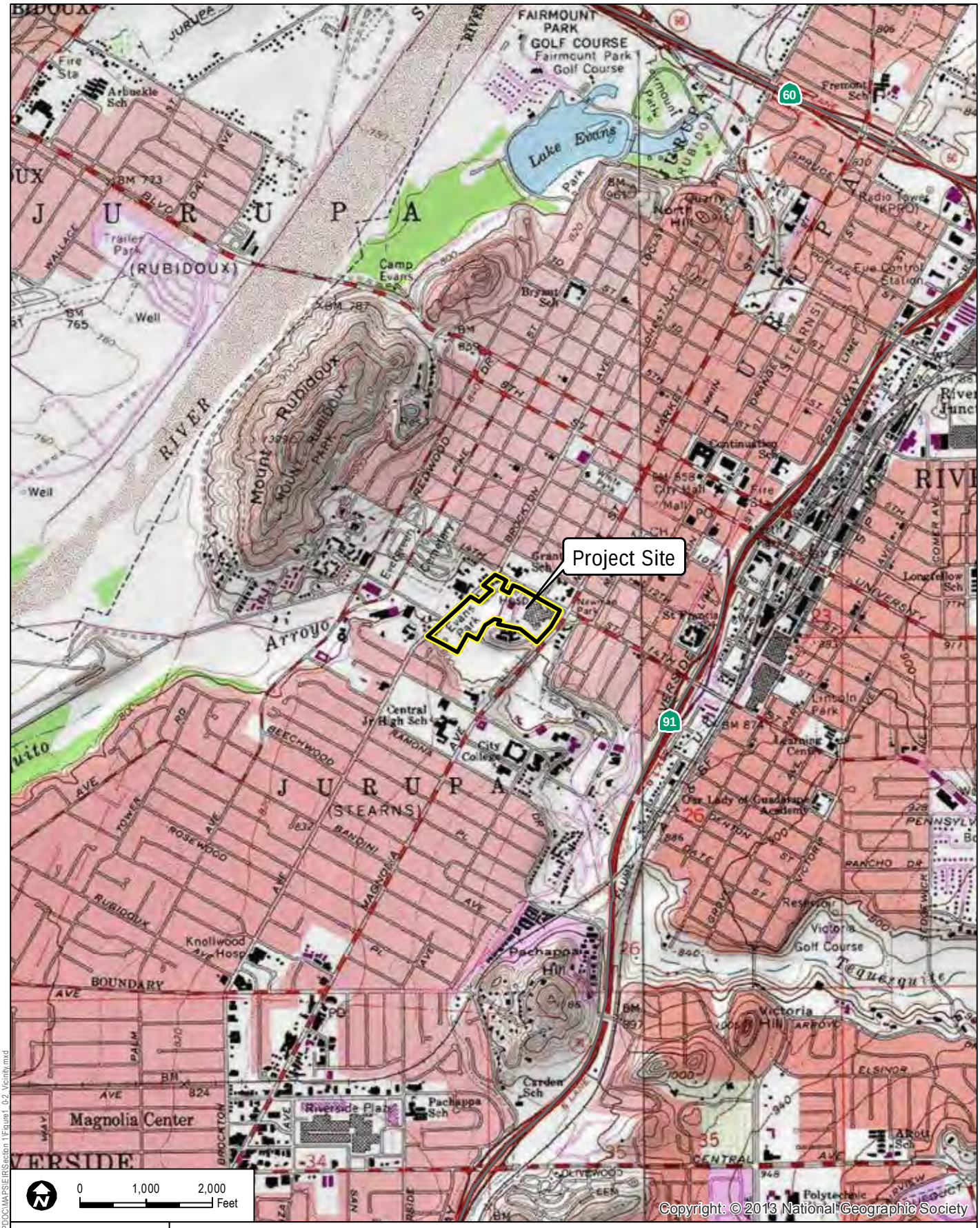

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SOURCE: USGS 7.5-Minute Series Quadrangle (Riverside West, Riverside East)

FIGURE ES-2
Vicinity Map

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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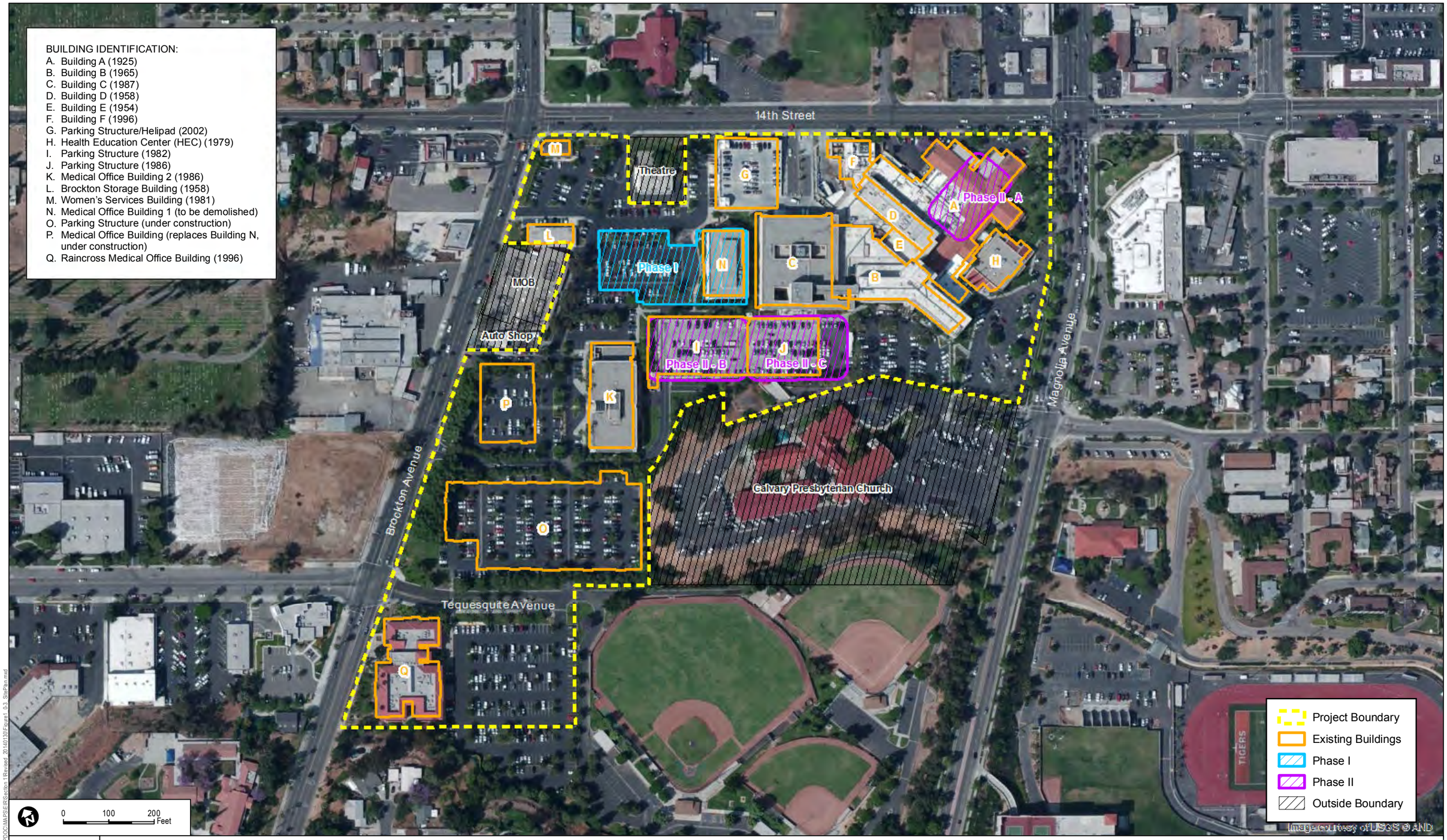

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SOURCE: Kimley-Horn and Associates, Perkins+Will , BING

FIGURE ES-3

Site Plan

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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ES.3.2 Project Objectives

Project objectives allow for the analysis of reasonable alternatives to the project. Reasonable alternatives must be analyzed in accordance with Section 15126.6 of the CEQA Guidelines.

The SP objectives (project objectives) are as follows:

- Demolish, rehabilitate, and construct new structures within the RCH campus in order to comply with the mandated requirements of Senate Bill 1953, the Alfred E. Alquist Seismic Act, to replace unsafe applicable hospital facilities by the year 2030.
- In order to meet the requirements of Nonstructural Performance Category 5 by 2030, construct facilities that provide a self-sustaining hospital that would provide water and wastewater holding tanks sufficient for 72 hours in the event of a disaster.
- Develop a comprehensively planned, integrated medical campus within the existing hospital campus boundaries that includes an approximately 600-hospital-bed buildout capacity, with acute care services, medical offices, and ancillary services for the community and new employment opportunities in downtown Riverside.
- Increase hospital operational efficiencies by providing a variety of services, such as cancer care, ER/trauma, imaging, neurology and neurosurgery, a center for surgical weight loss, transplant programs, labs, and medical office space in a central campus-like setting.
- Provide space for research and medical education facilities in cooperation with the Medical School at University of California, Riverside.
- Provide a roadmap to guide future development plans on the campus by providing design and development standards to be implemented by future streamlined entitlement processes for future campus expansions.

ES.3.3 Required Permits and/or Approval

Implementation of the project may require permits or other forms of approval from public agencies or other entities prior to construction of the project. They include, but are not limited to, the following.

City of Riverside

Certification of this EIR (Planning Case P13-0207), General Plan Amendment (Planning Case P13-0208), Rezone (Planning Case P13-0209), Site Plan Review (Planning Case P13-0210), Specific Plan (Planning Case P13-0211), and other discretionary actions shall be reviewed and/or approved by Planning Staff, City Planning Commission, and/or City Council. Plan Check process and approval is required.

Regional Water Quality Control Board, Santa Ana Region

National Pollutant Discharge Elimination System (NPDES) Construction General Permits will be required for grading activities of 1 acre or larger. Since the project would disturb more than 1 acre of soil, the applicant must file a Notice of Intent with the Santa Ana Regional Water Quality Control Board (RWQCB) and obtain a General Construction Activity Stormwater Permit, pursuant to the NPDES regulations established under the Clean Water Act. This permit requires preparation and implementation of a stormwater pollution prevention plan, which is intended to prevent degradation of surface and groundwater during the grading and construction process. A report of waste discharge shall be submitted to the Santa Ana RWQCB to obtain either a waste discharge requirement or a waiver for any impacts to waters of the state.

South Coast Air Quality Management District

A fugitive dust control plan submitted to the South Coast Air Quality Management District for approval will be required prior to issuance of grading permits (SCAQMD Rule 403). Permits for stationary sources, such as those proposed to be installed in the Central Plant (e.g., boilers, emergency generators), will be required prior to project approval.

ES.4 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table ES-1, Summary of Environmental Impacts and Mitigation Measures, provides a summary of the impact analysis related to the project. The table identifies a summary of the significant environmental impacts resulting from the project pursuant to the CEQA Guidelines Section 15123(b)(1). For more detailed discussion, please see Chapter 4.0 of this document. Table ES-1 also lists the applicable mitigation measures related to identified significant impacts, as well as the level of significance after mitigation is identified. As stated in Chapter 2.0 of the EIR, the Initial Study (IS) prepared and circulated with the Notice of Preparation (NOP) for public review on the project (see Appendix A of the EIR) concluded that the project would not result in significant impacts to agriculture and forestry resources, geology and soils, mineral resources, population and housing, public services, and recreation; therefore, these topics are not addressed in the EIR and not summarized in Table ES-1.

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Aesthetics			
a. Scenic vista effects	Potentially significant	MM AES-1: In order to avoid potential indirect impacts to Calvary Presbyterian Church during Phases IIb and IIc, the following design guidelines in regard to the design of the Phase IIb and Phase IIc hospital bed tower shall be observed: 1. Ensure that the building is contemporary in design, but sensitive to the adjacent church in the placement of height, massing, landscaping, and in the use of materials. 2. Design the building to step up in height, beginning with lower elements at the south and east elevations and progressing to higher elements toward the north and west. 3. Refrain from the extensive use of highly reflective building materials in lower parts of the building. 4. Use shading devices similar in concept to those used on Building B so as to soften the view to windows and provide a sense of depth to the building. 5. Design the landscaping around the south and east sides of the building to create a landscape filter at both the lower and higher elevations. The type of tree used in the parking lot for Building B is a good example of the type of landscaping that would effectively soften the view to the Phase IIb and Phase IIc hospital bed tower.	Less than significant
b. Scenic resource damage	Less than significant	N/A	N/A
c. Visual quality/character degradation	Potentially significant	MM AES-2: In order to avoid potential direct impacts to Building B during seismic retrofitting in Phase I, the following measures shall be implemented: 1. Maintain the architectural integrity of Building B by preserving its character-defining features. If replacement of character-defining features becomes necessary, the replacements shall maintain the appearance of the original materials.	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		2. Locate seismic reinforcement within the interior of the building. To the extent that seismic reinforcement needs to be accomplished on the exterior of the building, it will be designed to blend as much as possible with the existing building. For example, any seismic wrap necessary on the building should protrude from the building face as little as possible and should be similar in color and texture to the existing building. 3. Maintain the lacy look provided by the lemon-scented eucalyptus trees south of Building B through preservation or relocation of existing trees or through the replacement of existing trees with specimen trees of the same variety. 4. Preserve all rock walls and seating areas associated with Building B's landscape. If new improvements necessitate the removal of some rock walls, replacement walls with the same appearance as the original walls shall be constructed. MM AES-3:During Phase IIa, in order to avoid potential direct and indirect impacts to the J. Harrison Wright Palm Grove associated with the Building A site and the Newman Park Palm Grove, as well as protecting other mature trees near the palm trees and the mounded turf area, the following measures shall be implemented: 1. Establish a landscape setback that preserves the trees in the J. Harrison Wright Palm Grove, with the frontage of the landscape setback to extend from the east frontage of the health education center Building H to the parking lot at the southwest corner of Magnolia Avenue and 14th Street. If necessary for the efficiency of the design of the building that replaces Building A, a small number of palms may be relocated within the defined setback area.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		2. Ensure that the building that replaces Building A is of contemporary design, but sensitive in design, color, and materials. If the building has a direct frontage on the palm grove landscape setback, design the building to step down to one story at the edge of the palm grove, with a design that provides a compatible backdrop for the historical landscape. 3. Design the site plan for the building that replaces Building A so it has a building edge or building-like edge adjacent to the palm grove. A building-like edge could consist of an arcade-type structure similar in concept to that used along the Market Street frontage of the shopping center on the west side of Market Street, between 3rd and 4th Streets. If such an arcade-like feature is used, it will be of an architectural style in keeping with the building behind it. 4. Design and install a plaque and interpretive feature with prominent public access in the palm grove, telling the history of J. Harrison Wright and his association with the landscaping of the hospital and Newman Park..	
d. New source of light or glare	Potentially significant	MM AES-4: Window glazing on buildings constructed during Phases I, IIa, IIb, and IIc shall be predominantly (at least 60%) lightly tinted in a natural glass color that has a low reflectance percentage, which will reduce the reflection of natural or artificial light off structural façades. MM AES-5: Development during Phases I, IIa, IIb, and IIc shall incorporate exterior landscaping, as needed, and will be determined during preparation of design plans, that minimizes glare generated from windows and glass panels, especially when development occurs adjacent to sensitive land uses.	Less than significant
e. Cumulative aesthetic and/or lighting impact	Less than significant	N/A	N/A

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Air Quality			
a. Applicable air quality plan	Less than significant	N/A	N/A
b. Projected air quality violation	Potentially significant	MM AQ-1: The following measures shall be adhered to during project grading and construction to reduce oxides of nitrogen (NOx) from construction equipment for all phases of the project: a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 2 or better diesel engines. b. The engine size of construction equipment shall be the minimum size. c. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time. d. Construction equipment shall be maintained in tune per the manufacturer's specifications. e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower. f. Electric equipment shall be utilized in lieu of diesel-powered equipment, where feasible. MM AQ-2: During the environmental review process for future discretionary permits for Phase IIc of the Riverside Community Hospital Expansion Project, an air quality technical report that includes project construction phasing, timing and operational details shall be analyzed using the current air quality model available from the South Coast Air Quality Management District (SCAQMD). Project emissions shall be modeled and then evaluated based on current SCAQMD thresholds. The technical analysis for Phase IIc shall be prepared to analyze construction and operational emissions.	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		If air quality impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated to reduce impacts. Examples of standard construction mitigation measures include the following: Consistent with SCAQMD Rule 403, it is required that fugitive dust generated by grading and construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures listed below: a. During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease. b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour. c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with soil binders to prevent dust generation. d. Speeds on unpaved roads shall be reduced to less than 15 miles per hour. e. All grading and excavation operations shall be halted when wind speeds exceed 25 miles per hour. f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and/or washed at the end of each workday. g. If import/export of soil materials would be required, all trucks hauling dirt, sand, soil, or other loose material to and from	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		the construction site shall be covered and/or a minimum 2 feet of freeboard shall be maintained. h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by the SCAQMD). i. Any additional requirements of SCAQMD Rule 403 shall be reviewed and complied with. The following measures shall be adhered to during project grading and construction to reduce emissions of volatile organic compounds (VOC) and oxides of nitrogen (NOx) from construction equipment: a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 4 or better diesel engines. b. The engine size of construction equipment shall be the minimum size. c. The amount of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest amount of equipment is operating at any one time. d. Construction equipment shall be maintained in tune per the manufacturer's specifications. e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower. f. Electric equipment shall be utilized in lieu of diesel-powered equipment, where feasible. g. RCH shall use zero-VOC-content architectural coatings during project construction/application of paints and other	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		architectural coatings to reduce ozone precursors. If zero-VOC paint cannot be utilized, the developer shall avoid application of architectural coatings during the peak smog season: July, August, and September. RCH shall procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings). If air quality impacts for operational emissions for Phase IIc are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated to reduce impacts. Examples of standard operational mitigation measures include the following: reduce trips in passenger vehicles by patients, visitors, or physicians/staff; enhance transportation management demand programs; and reduce energy usage.	
c. Cumulatively considerable net increase of criteria pollutants	Less than significant	N/A	N/A
d. Pollutant concentrations	Potentially significant	MM AQ-3: During construction of all phases of the project, the following mitigation measures shall be incorporated to reduce impacts resulting from the exceedance of the South Coast Air Management District (SCAQMD) localized significance thresholds. Consistent with SCAQMD Rule 403, it is required that fugitive dust generated by grading and construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures listed below: a. During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease. b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour. c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with soil binders to prevent dust generation. d. Speeds on unpaved roads shall be reduced to less than 15 miles per hour. e. All grading and excavation operations shall be halted when wind speeds exceed 25 miles per hour. f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and/or washed at the end of each workday. g. If import/export of soil materials would be required, all trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered and/or a minimum 2 feet of freeboard shall be maintained. h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by SCAQMD). i. Any additional requirements of SCAQMD Rule 403 shall be reviewed and complied with. j. The construction contractor or Riverside Community Hospital representative shall notify sensitive receptors when building demolition and grading activities would occur so that sensitive	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		residents could be kept indoors or other accommodations made for their comfort. The construction contractor shall post readily visible signage in publicly accessible areas along the property lines of the Riverside Community Hospital with a contact name and telephone number in the event that project construction would generate nuisance levels of air pollutants in the surrounding community. Action shall be taken within 4 hours after notification to determine the cause of the objectionable emissions and take corrective action. The following measures shall be adhered to during project grading and construction to reduce emissions of oxides of nitrogen (NO_x) from construction equipment: a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 3 or better diesel engines. b. The engine size of construction equipment shall be the minimum size. c. The amount of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest amount of equipment is operating at any one time. d. Construction equipment shall be maintained in tune per the manufacturer's specifications. e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower. f. Electric equipment shall be utilized in lieu of diesel-powered equipment, where feasible.	
e. Objectionable odors	Less than significant	N/A	N/A
f. Cumulative air quality impact	Potentially significant	N/A	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Biological Resources			
a. Impacts to sensitive or special-status species	Potentially significant	MM BIO-1: In order to avoid potential impacts to nesting birds in conformance with the Migratory Bird Treaty Act and California Fish and Game Code during all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of the project, a qualified biologist will conduct a nesting bird survey within 1 week prior to ground-disturbance activities. Avoidance will involve the period from approximately February 1 to August 31, which covers the breeding season for most birds that may occur in the project area. The survey shall consist of full coverage of the proposed disturbance footprint as well a 300-foot buffer. If no active nests are found, no additional measures are required. If active nests are found, the nest locations shall be mapped by the biologist using Global Positioning System (GPS) equipment. The nesting bird species and, to the degree feasible, the nesting stage (e.g., incubation of eggs, feeding of young, near fledging) will be documented. The biologist shall establish a no-disturbance buffer around each active nest. The buffer will be determined by the biologist based on the species present and surrounding habitat. No construction or ground disturbance activities shall be conducted within the buffer until the biologist has determined the nest is no longer active and has informed the construction supervisor that activities may resume.	Less than significant
b. Cumulative biological resource impact	No cumulative impact	N/A	N/A
Cultural Resources			
a. Adverse change in the significance of a historical resource	Potentially significant	MM AES-1: see above. MM AES-2: see above. MM AES-3: see above.	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		MM CUL-1: Design and install a plaque and interpretive feature with prominent public access in the palm grove, telling the history of J. Harrison Wright and his association with the landscaping of Riverside Community Hospital (RCH) and Newman Park. MM CUL-2: In order to avoid potential indirect impacts to the Riverside Community Players Theatre during Phase I, RCH will implement the following measures prior to issuance of building permits: 1. Before ground is broken for the new Phase I hospital bed tower, provide improved parking for Riverside Community Players Theatre patrons in accordance with the agreement between RCH and the Riverside Community Players. Many of the theatre patrons are elderly, so such parking needs to be located near the theatre and at the same general grade as the theatre. 2. If necessary, pave and stripe the area below the parking structure/helipad, Building G, to provide added parking near the theatre. 3. Work with theatre management to develop a means for ensuring access to convenient parking for theatre patrons when performances are scheduled at the Community Players Theatre. 4. Narrow the planter areas shown on the plot plan east and west of the parking bay along the north face of the Phase I hospital bed tower and use the space gained to create four or five finger planters to break up the expanse of parking. In these planters, tree varieties that will help soften the view to the lower part of the building will be required.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		MM CUL-3: In order to lessen direct and indirect impacts related to archaeological evidence of Chinatown's history that is around the project site or at the Old Magnolia Avenue Trolley Line and Refuse Dump, all ground-disturbing activities during all construction phases of the project shall be monitored by a qualified archaeologist meeting the requirements of the Secretary of the Interior. In the event that the archaeological monitor identifies a potentially significant site, the monitor shall secure the discovery site from further impacts by delineating the site with staking and flagging, and by diverting grading equipment away from the archaeological site. Following notification to the City of Riverside (City), the archaeological monitor shall conduct investigations as necessary to determine whether the discovery is significant under the criteria listed in the California Environmental Quality Act and the environmental guidelines of the City. If the discovery is determined to be not significant, grading operations may resume and the archaeological monitor shall summarize the findings in a letter report submitted to the City following the completion of mass grading activities. The letter report shall describe the results of the on-site archaeological monitoring, each archaeological site observed, the scope of testing conducted, results of laboratory analysis (if applicable), and conclusions. The letter report shall be completed prior to the release of grading bonds. Any artifacts recovered during the evaluation of resources shall be curated at a facility approved by the City. For the cultural prehistoric/historic resources that are determined to be significant, alternate means of achieving mitigation shall be pursued. In general, these forms of mitigation include the following:	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		1. Site avoidance by preservation of the archaeological site in a natural state in open space, or in specific open space easements 2. Site avoidance by preservation through capping the site and placing landscaping on top of the fill 3. Data recovery through implementation of an excavation and analysis program 4. A combination of one or more of the above measures. MM CUL-4: In order to lessen direct and indirect impacts related to the historical resources located on the site, RCH shall develop an interpretive feature telling the story of RCH and display it in a prominent public place so that the public can be educated on the history of the site. This history will include the use of the property for farming and then athletic fields, as well as its ultimate development as a major medical center. This interpretive feature shall be installed prior to issuance of occupancy permits for Phase IIb.	
b. Adverse change in significance of an archaeological resource	Potentially significant	MM CUL-3: See above. MM CUL-4: See above.	Less than significant
c. Cumulative cultural resource impact	Less than significant	N/A	N/A
Greenhouse Gas Emissions			
a. Generate direct or indirect greenhouse gas emissions	Less than significant	MM AQ-1: See above.	Less than significant
b. Conflict with a plan, policy, or regulation adopted to reduce greenhouse gas emissions	Less than significant	N/A	N/A

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Hazards and Hazardous Materials			
a. Exposing a school to hazardous materials	Potentially significant	MM HAZ-1: Prior to demolition activities in Phase I, Phase IIa, and Phase IIb of the project, a lead-based paint and asbestos survey shall be conducted. Should lead-based paint or asbestos-containing materials be identified during survey, abatement of the same will be accomplished in accordance with local, state, and federal guidelines. MM HAZ-2: Prior to grading and/or subsurface work for Phase I, Phase IIa, Phase IIb, and Phase IIc of the project, air monitoring for volatile organic compounds (VOCs) shall be conducted to determine whether subsurface contamination will affect construction activities. If VOC levels are above those allowed for worker safety and environmental compliance, Riverside Community Hospital (RCH) shall retain qualified personnel to train RCH employees and/or contractors, remediate existing VOC levels, and prevent exposure to RCH customers and employees/contractors through monitoring and remediating impacted materials, proper use of personal protective equipment, and utilizing best management procedures.	Less than significant
b. Located on a hazardous materials site	Potentially significant	MM HAZ-2: See above. MM HAZ-3: Prior to construction activities in the area of the former underground storage tanks (see Figure 4.6-1), a subsurface soil and soil vapor investigation shall be conducted in the north, northeast, and western portions of the project site. If contamination is detected during the subsurface investigations and the concentrations exceed worker safety thresholds, a soil management plan shall be prepared to protect worker health and safety during construction. If established regulatory agency contamination thresholds are exceeded, the regulatory agencies (e.g., the Department of Toxic Substances	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		Control (DTSC) and the Regional Water Quality Control Board (RWQCB)) shall be notified and remediation may be necessary. MM HAZ-4: Prior to the demolition of the parking structure during Phase IIb of the project, an investigation of the soil in the area of the hydraulic oil release by the parking structure elevator shall be conducted. If contamination is detected during the subsurface investigations and the concentrations exceed worker safety thresholds, a soil management plan shall be prepared to protect worker health and safety during construction. If established regulatory agency contamination thresholds are exceeded, the regulatory agencies (e.g., the DTSC and the RWQCB) shall be notified and remediation may be necessary.	
c. Located within an airport land use plan	Less than significant	N/A	Less than significant
d. Impair emergency response	Less than significant	N/A	Less than significant
e. Cumulative hazards or hazardous materials impact	No Cumulative Impact	N/A	N/A
Hydrology/Water Quality			
a. Violate water quality standards	Less than significant	N/A	N/A
b. Deplete groundwater supplies	Less than significant	N/A	N/A
c. Alter drainage pattern, causing erosion	Less than significant	N/A	N/A
d. Alter drainage pattern, causing flooding	Less than significant	N/A	N/A
e. Excess runoff water	Less than significant	N/A	N/A
f. Cumulative hydrology or water quality impact	No cumulative impact	N/A	N/A
Land Use and Planning			
a. Conflicts with other plans, policies, or regulations	Less than significant	N/A	N/A

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
b. Cumulative land use and/or planning impact	No cumulative impact	N/A	N/A
Noise			
a. Noise in excess of established standards	Potentially significant	MM NOISE-1: In order to reduce impacts related to heavy construction equipment moving and operating on site during all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of demolition, grading, and construction, prior to issuance of grading permits mitigation measures shall be incorporated by the City of Riverside (City) as conditions on permits. Examples of measures to be required by the City are as follows: • All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers. • Construction noise reduction methods, such as shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied sensitive receptor areas, and using electric air compressors and similar power tools rather than diesel equipment, shall be used. • During construction, stationary construction equipment shall be placed such that noise is directed away from or shielded from sensitive noise receivers. • During construction, stockpiling and vehicle staging areas shall be located far from noise-sensitive receptors. • The project shall be in compliance with the City's Municipal Code: Construction shall occur between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and between 8:00 a.m. and 5:00 p.m. on Saturdays. Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners and residents to contact the job superintendent.	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		MM NOISE-2: If surface parking or parking structures are proposed during Phase IIa, IIb, or IIc of the project, the project proponent shall retain an acoustical specialist to conduct an analysis of noise effects from the proposed parking facilities at nearby noise-sensitive land uses, and to provide mitigation measures that will reduce noise levels to below 60 A-weighted decibels (dBA) or less at the property line and will not otherwise result in the project exceeding relevant noise standards at nearby noise-sensitive land uses (e.g., recreation, residential). Examples of mitigation measures are as follows: requirement of pavement treatments to reduce or eliminate tire squeal, administrative measures such as restricted speed limits and active enforcement thereof, or restricted parking hours. MM NOISE-3: Because heating, ventilation, and air conditioning (HVAC) equipment, boilers, and generators can generate noise that could affect surrounding sensitive receptors for all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of the project if not placed inside buildings or enclosures or otherwise shielded from receptors, and because the details, specifications, and locations of these facilities is not known yet, the project proponent shall retain an acoustical specialist to review project construction-level plans at every phase (Phase I, Phase IIa, Phase IIb, and Phase IIc) of the project to ensure that the equipment specifications and plans for HVAC, central plant, and emergency generator equipment incorporate measures, such as the specification of quieter equipment or provision of acoustical enclosures, that will reduce noise levels to below 60 dBA or less at the property line and will not otherwise result in the project exceeding relevant noise standards at nearby noise-sensitive land uses (e.g., recreation, residential). Prior to the commencement of construction for all phases (Phase I, Phase	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		IIa, Phase IIb, and Phase IIc) of the project, the acoustical specialist shall certify in writing to the City that the equipment specifications and plans incorporate measures that will achieve the relevant noise limits.	
b. Excessive groundborne vibration or groundborne noise levels	Less than significant	N/A	N/A
c. Permanent increase in ambient noise levels	Less than significant	MM NOISE-2: See above. MM NOISE-3: See above.	Less than significant
d. Temporary or periodic increase in ambient noise levels	Potentially significant	MM NOISE-1: See above.	Significant
e. Exposing people residing or working in airport land to excessive noise	Less than significant	N/A	N/A
f. Cumulative noise impact	Potentially significant	N/A	Significant
Traffic			
a. Conflict with applicable traffic performance standard	Potentially significant	MM TRA-1: Brockton Avenue and 14th Street: Prior to the completion of Phase I, Riverside Community Hospital (RCH) shall convert the number one westbound through lane to a second left-turn lane. MM TRA-2: 14th Street and Magnolia Avenue / Market Street: Prior to the completion of Phase I, RCH shall modify the signal operation at 14th Street and Magnolia Avenue / Market Street to provide right-turn overlap for the northbound approach. MM TRA-3: Brockton Avenue and RCH Entrance: Prior to the completion of Phase I, the driveway at the RCH entrance off Brockton Avenue shall be modified to prohibit westbound (outbound) left-turn movements to reduce delay. As a condition of approval, southbound left-turns into the driveway at the RCH	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		entrance off Brockton Avenue shall be restricted. This measure will also address level of service during Phases IIa, IIb, and IIc. MM TRA-4: Brockton Avenue and 14th Street: Prior to issuance of certificate of occupancy for Phase IIa, the intersection of Brockton Avenue and 14th Street shall be modified by converting one westbound through lane to a second left-turn lane. MM TRA-5: 14th Street and Magnolia Avenue / Market Street: Prior to issuance of certificate of occupancy for Phase IIa, a second westbound left-turn lane shall be provided at the intersection of 14th Street and Magnolia Avenue / Market Street, as well as signal operation modification to provide right-turn overlap for the northbound approach. Additional right-of-way shall be dedicated on 14th Street at Market Street to accommodate the proposed turn lanes. If acquisition of off-site right-of-way is necessary, the applicant shall make a good faith effort to acquire the right-of-way needed to accomplish the improvement. MM TRA-6: 14th Street and Lime Street: Prior to issuance of a certificate of occupancy for Phase IIa, the northbound through/right-turn lane at the intersection of 14th Street and Lime Street shall be converted into an exclusive right-turn lane to accommodate heavy right-turn movement toward the freeway. Signal operation shall be modified to provide right-turn overlap for the northbound approach. MM TRA-7: Brockton Avenue roadway segment from Tequesquite to Ramona: During Phase I, modification of the traffic signal at the intersection of Brockton Avenue and Tequesquite Avenue shall provide protected/permissive left-turn phasing in all directions.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		MM TRA-8: Brockton Avenue roadway segment from 14th Street to Tequesquite: During Phase I, Brockton Avenue south of 14th Street shall be restriped to provide a northbound right-turn lane and the traffic signal at the intersection of Brockton Avenue and 14th Street shall be modified to provide right-turn overlap for the northbound approach.	
b. Conflict with applicable congestion management program	Potentially significant	MM TRA-3: See above. MM TRA-6: See above.	Significant
c. Change in air traffic patterns	Less than significant	N/A	N/A
f. Conflict with alternative transportation	Potentially significant	MM TRA-9: During Phases I, IIa, IIb, and IIc, RCH shall work with the Riverside Transit Agency and City of Riverside staff to identify modifications to reduce the potential for conflicts between buses and vehicles entering the RCH campus. MM TRA-10: During Phases I, IIa, IIb, and IIc, RCH shall continue to implement two ride-sharing rewards programs in coordination with IE511 (Inland Empire Commuter Incentives).	Less than significant
g. Cumulative impact to transportation, specifically conflicts with an applicable plan, ordinance, or policy used to measure effectiveness of the transportation system	Potentially significant	N/A	Significant
h. Cumulative impacts to transportation, specifically conflicts with an applicable congestion management program	Potentially significant	N/A	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
Utilities and Service Systems			
a. Require construction of new drainage facilities	Less than significant	N/A	N/A
b. Sufficient landfill capacity	Less than significant	N/A[a]	N/A
c. Conflict with solid waste regulations	Less than significant	N/A	N/A
d. Cumulative public services and/or utilities impact	No cumulative impact	N/A	N/A
Energy Conservation			
a. Wasteful energy consumption	Less than significant	N/A	N/A
b. Conflict with energy standards	Less than significant	N/A	N/A
c. Significant demand on energy supply	Less than significant	MM TRA-10: See above.	N/A
d. Cumulative impact on energy consumption	No cumulative impact	N/A	N/A

N/A = not applicable

[a] Impacts to landfill capacity as a result of the project are found to be less than significant. However, MM UTL-1 and MM UTL-2 (see Section 4.11.5) have been included to ensure preparation of waste recycling plans.

ES.5 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

Section 15123(b) (2) of the CEQA Guidelines requires that areas of controversy known to the lead agency must be stated in the EIR summary. Issues of interest to the public and public agencies were identified during the 30-day public comment period of the IS and NOP. A Planning Commission Workshop was held before the City of Riverside Planning Commission on May 23, 2013.

Written comments in response to the NOP were received from the following agencies:

- State of California Governor's Office of Planning and Research – State Clearinghouse and Planning Unit
- South Coast Air Quality Management District
- California Department of Transportation
- Native American Heritage Commission
- Morongo Band of Mission Indians
- The Soboba Band of Luiseño Indians.

Written comments in response to the NOP were received from the following property owners:

- Riverside Community Players Theatre.

At the Planning Commission Workshop on May 23, 2013, verbal comments were received from the following people:

- Cindy Roth, Riverside Chamber of Commerce President
- Robert Mease, on behalf of the Calvary Presbyterian Church.

The IS, NOP, distribution list, and comment letters received during the NOP review period are included in Appendix A of this EIR.

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved; this includes the choice among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved for the project include decisions by the City as to whether this EIR adequately describes the potential environmental impacts of the project, whether the recommended mitigation measures should be adopted or modified, whether additional mitigation measures need to be applied, whether the project should or should not be approved as proposed, or whether the project should be modified based on the alternatives considered in this EIR.

ES.6 SUMMARY OF PROJECT ALTERNATIVES

Section 15126.6 of the CEQA Guidelines identifies the parameters within which consideration and discussion of alternatives to the project should occur. As stated in this section of the guidelines, alternatives must focus on those that are reasonably feasible and that attain most of the basic objectives of the project. Each alternative should be capable of avoiding or substantially lessening any significant effects of the project. The rationale for selecting the alternatives to be evaluated and a discussion of the No Project Alternative are also required, per Section 15126.6.

ES.6.1 Alternatives Evaluated in Preparation of RCH Expansion Project

This EIR includes an evaluation of the following alternatives:

- No Project Alternative – Continued Hospital Use
- Alternative 1 – Reduced Licensed Beds
- Alternative 2 – One Hospital Bed Tower Development.

ES.6.1.1 No Project Alternative – Continued Hospital Use

The No Project Alternative assumes that the project site would not be developed and the existing hospital facilities would remain and continue in operation. The RCH SP would not take effect under the No Project Alternative and the RCH campus would remain in the DSP–HC District. The RCH would continue to operate under a CUP that dates back to the 1960s. Although project-level impacts would be avoided, without the project some of the hospital facilities would not meet seismic retrofit requirements required by Senate Bill (SB) 1953. Specifically, Building A would not be allowed to house acute care services beyond January 1, 2020, and Buildings B and D would not be allowed to house acute care services beyond January 1, 2030. In addition to meeting the requirements of SB 1953, the overall hospital expansion is needed to improve access to healthcare for a growing population as well as to modernize hospital facilities. Although this alternative would not meet the project objectives, CEQA requires the alternative to be analyzed.

ES.6.1.2 Alternative 1 – Reduced Licensed Beds

Alternative 1 is to reduce the number of hospital beds on the campus by 25%, from 600 licensed beds at project buildout, to 450 licensed beds. Under this alternative, it would be assumed that the height and size of the proposed new buildings would be reduced in size by 25% since there would not need to be as many hospital beds. Fewer vehicle trips would be generated as a result of this alternative; therefore, air quality and traffic would be expected to be reduced. By reducing the intensity of the use on the site, impacts under this alternative could be reduced compared to the project.

ES.6.1.3 Alternative 2 – One Hospital Bed Tower Development

The project would construct one hospital bed tower under Phase I (a seven-story tower) and another under Phases IIb and IIc (a nine-story tower); these two towers combined would accommodate 600 licensed beds.

Alternative 2 would involve the construction and operation of one 15-story hospital bed tower that would accommodate 600 licensed beds, rather than the two hospital bed towers planned under the project. The 15-story hospital bed tower would be built where the Phase I bed tower is currently proposed (along 14th Street). Phase IIa would still occur as a result of this alternative. The construction of only one bed tower would limit the amount of land needed to support the additional beds and the amount of construction time required. Additionally, this alternative would limit the adjacency issues related to placing numerous buildings close to cultural resources and sensitive receptors. Further, the RCH SP would continue to be implemented under this alternative. However, a 15-story building in the middle of the RCH campus would drastically alter the aesthetics of the site and the views from surrounding locations.

ES.6.2 Environmentally Superior Alternative

Table ES-2, Comparison of Impacts of the Alternatives, provides a summary of the alternatives impact analysis considered in the EIR and identifies the areas of potential environmental effects per CEQA, and ranks each alternative as better, the same, or worse than the project with respect to each issue area.

Table ES-2
Comparison of Impacts of the Alternatives

Environmental Issue Area	Project With Mitigation	No Project Alternative	Alternative 1 – Reduced Licensed Beds	Alternative 2 – One Hospital Bed Tower Development
Aesthetics	LTS	▼	▼	Δ
Air Quality	SU	▼	—	—
Biological Resources	LTS	▼	—	—
Cultural Resources	LTS	▼	—	Δ
Greenhouse Gas Emissions	LTS	▼	—	—
Hazards and Hazardous Materials	LTS	▼	▼	—
Hydrology/Water Quality	LTS	▼	—	—
Land Use and Planning	LTS	▼	—	Δ
Noise	SU	▼	—	—
Traffic	SU	▼	▼	Δ

Table ES-2
Comparison of Impacts of the Alternatives

Environmental Issue Area	Project With Mitigation	No Project Alternative	Alternative 1 – Reduced Licensed Beds	Alternative 2 – One Hospital Bed Tower Development
Utilities and Service Systems	LTS	▼	▼	▼
Energy Conservation	LTS	▼	▼	▬
Meets project objectives?	Yes	No	No	No

Δ Alternative is likely to result in greater impacts to issue when compared to project.
▬ Alternative is likely to result in similar impacts to issue when compared to project.
▼ Alternative is likely to result in reduced impacts to issue when compared to project.
LTS = Less than significant impact; SU = significant, unavoidable impact

As indicated in Table ES-2, the No Project Alternative would result in the least environmental impacts, and based on this would be considered the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Of the alternatives evaluated above, Alternative 1 was found to be environmentally superior over the project because it had the most reductions in impacts from the project. Alternative 1 was found to have improved, or better, impacts related to aesthetics, hazards and hazardous materials, transportation and traffic, utilities and service systems, and energy conservation. However, Alternative 1 does not meet the following project objectives:

1. Develop a comprehensively planned, integrated medical campus within the existing hospital campus boundaries that includes an approximately 600-hospital-licensed bed buildout capacity, with acute care services, medical offices, and ancillary services for the community and new employment opportunities in downtown Riverside.
2. Increase hospital operational efficiencies by providing a variety of services, such as cancer care, ER/trauma, imaging, neurology and neurosurgery, a center for surgical weight loss, transplant programs, labs, and medical office space in a central campus-like setting.
3. Provide space for research and medical education facilities in cooperation with the Medical School at University of California, Riverside.

Further, Alternative 1 would not reduce the project's significant and unavoidable air quality impacts to less than significant levels. Therefore, this alternative has been rejected as being infeasible.

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CHAPTER 1.0
INTRODUCTION

1.1 PURPOSE AND SCOPE

The purpose of this Draft Environmental Impact Report (EIR) is to disclose the potential environmental consequences of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project). The general location of the project is illustrated in Figure 1.0-1, Regional Map, and Figure 1.0-2, Vicinity Map. The proposed RCH Expansion Project development constitutes a "project" as defined in the California Environmental Quality Act (CEQA) Guidelines Section 15378. The City of Riverside (City) is the lead agency in preparing this EIR in accordance with the CEQA statutes (California Public Resources Code, Section 21000 et seq.) and implementing the CEQA Guidelines (14 CCR 15000 et seq.).

The approximately 22.5-acre project site is located at 4445 Magnolia Avenue in Riverside, California, approximately 0.42 mile west of State Route 91 (SR 91) and approximately 1.60 miles south of SR 60. The site is bounded by 14th Street to the north, Brockton Avenue to the west, and Magnolia Avenue to the east. Evans Sports Complex, Calvary Presbyterian Church, Tequesquite Avenue, and residential development are located to the south (Figure 1.0-1, Regional Map; Figure 1.0-2, Vicinity Map; Figure 1.0-3, Site Plan).

Since 1901, RCH has been, and will continue to be, a prominent provider of healthcare in the Riverside community and the Inland Empire region, providing comprehensive healthcare and highly specialized services. RCH is proposing a new Specific Plan (SP) on the project site. A site master plan has been developed and includes both short-term and long-range planning goals that will guide construction on the RCH campus over a 30-year period which will be the subject of the SP.

The SP is divided into Phases: Phase I and Phase II (which is further subdivided into subphases: Phase IIa, IIb, and IIc) (see Figure 1.0-3, Site Plan). The primary focus of Phase I of the project is to construct a new hospital bed tower to alleviate seismic concerns associated with existing buildings and to meet seismic retrofit requirements as required by Senate Bill (SB) 1953. Phases IIa, IIb, and IIc of the project also address seismic concerns of other existing buildings and include future and possible long-range development. Phase I and Phase II of the project are described in Chapter 2.0, Project Description. At full buildout, the total number of licensed beds on the RCH campus would be 600.

EIRs are informational documents "which will inform public agency decision-makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project" (14 CCR 15121). The purpose of this EIR is to present the evaluation of the anticipated environmental effects of the project.

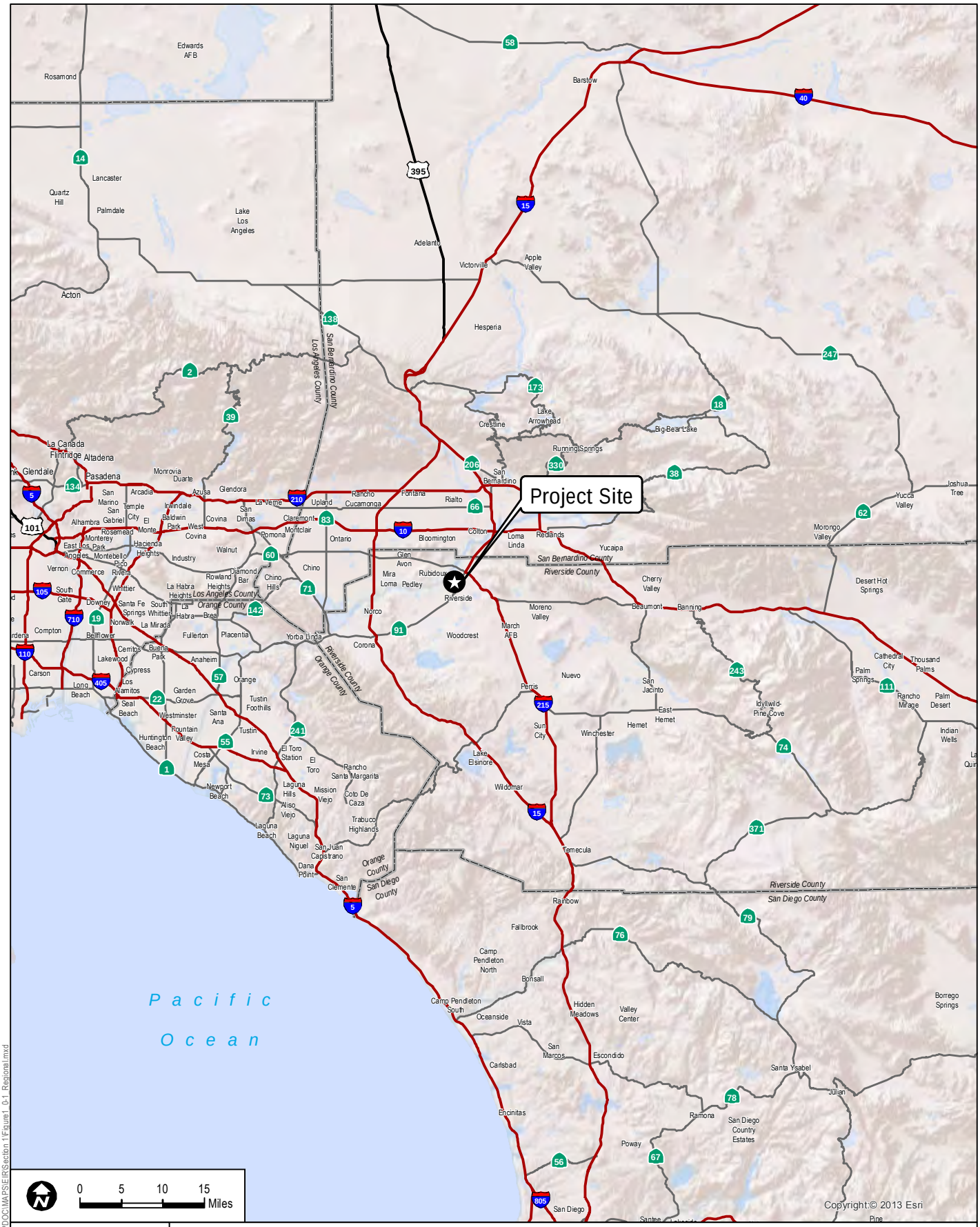
This EIR is intended for use by decision makers (i.e., City Planning Commission and City Council), other public agencies, and the general public. It provides relevant information concerning the potential environmental effects associated with the construction and operation of the RCH Expansion Project.

1.2 COMPLIANCE WITH CEQA

1.2.1 Format

Chapter 1.0 of this EIR sets forth the summary requirements of CEQA as required by Section 15123 of the CEQA Guidelines. The Executive Summary and Chapter 2.0, Project Description, also comply with the project description requirements of CEQA by discussing the project location (Section ES-1.3), the project objectives (Section ES-1.4.2), and a statement of the document's purpose and intended use (Section ES-1.2).

Issues identified in the initial study (IS) prepared by the City for the project that were found to have no impact or a less than significant impact are provided in Appendix A of this document. This EIR has been formatted to address the issues found to be potentially significant in the IS. For the issue areas found to be potentially significant in the IS, there is a corresponding EIR section. Each EIR section includes an existing setting discussion which describes the physical environmental conditions within the project area, as they exist at the time the NOP was prepared and is considered the baseline physical condition by which the City determines whether an impact is considered to be significant (14 CCR 15125(a)). The existing parking structure (Building O) and medical office building (Building P) that are currently under construction have been previously approved under Planning Case P12-0643 with a Notice of Exemption (Class 32/Section 15332 (In-Fill Development)) filed with the Riverside County Clerk on February 7, 2013, and Planning Case P12-0779 with a Notice of Exemption (Class 32/Section 15332 (In-Fill Development, Section 15061(b)(3)) filed with the Riverside County Clerk on May 15, 2013, respectively. Since these structures were previously approved and will be completed prior to the construction of Phase I, they have been included as part of the baseline analysis in this EIR. Section 15125(d) of the CEQA Guidelines requires that an EIR "discuss any inconsistencies between the project and applicable general plans and regional plans," which will be addressed in Section 4.8, Land Use and Planning. Each EIR section includes an analysis performed to determine the amount and degree of impact that is associated with the project. As previously described, the SP is divided into phases: Phase I, Phase IIa, Phase IIb, and Phase IIc. At this time, Phase IIc's general location is known; however, the specific project details for Phase IIc are not known. Because specific development plans for Phase IIc are not available at this time, the analysis for Phase IIc in the EIR is at a program level. Where specific details of Phase IIc are known, then Phase IIc is analyzed at a project level. The Phase I hospital bed tower, Phase IIa mixed-use building, and the Phase IIb hospital bed tower will all be analyzed at a project level. For all significant environmental impacts, mitigation measures, where feasible, are implemented in order to reduce the impacts to a less than significant level.



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SOURCE: ESRI 2013

FIGURE 1.0-1
Regional Map

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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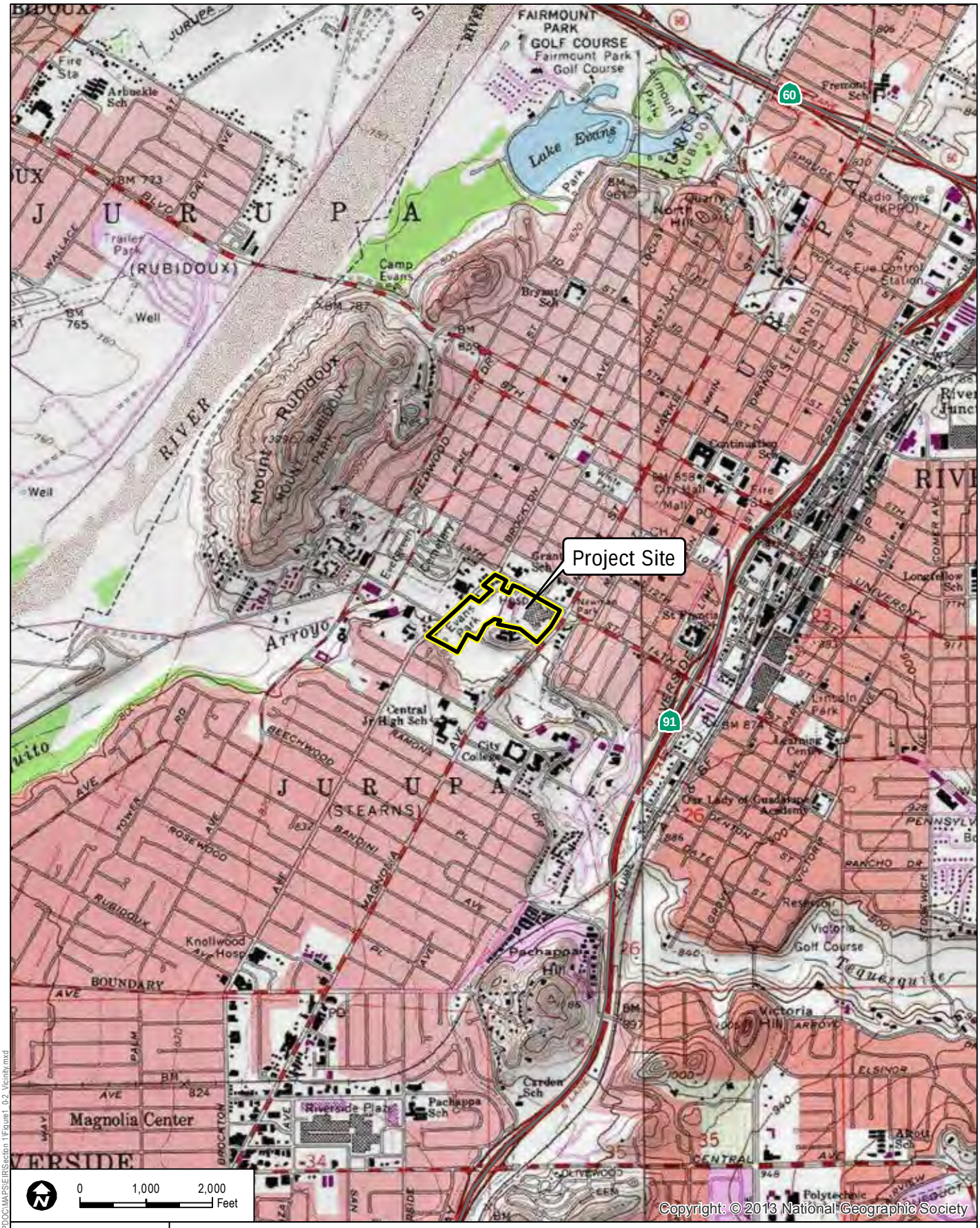

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SOURCE: USGS 7.5-Minute Series Quadrangle (Riverside West, Riverside East)

FIGURE 1.0-2
Vicinity Map

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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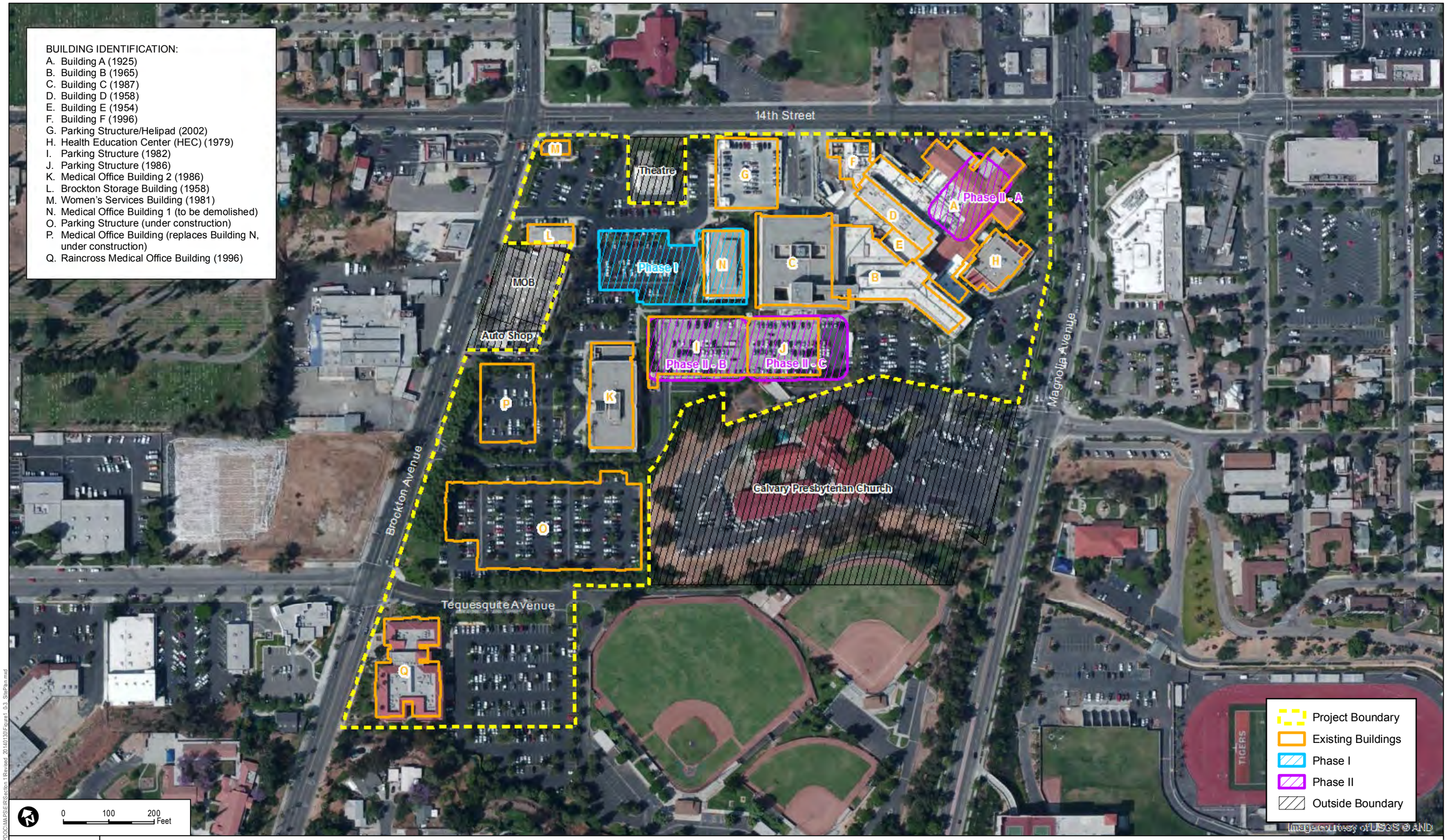

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SOURCE: Kimley-Horn and Associates, Perkins+Will , BING

FIGURE 1.0-3

Site Plan

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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The analysis of impacts and identification of mitigation measures are derived from technical reports that are included as technical appendices to this document and from other informational resources as listed in the references section of this document.

1.2.2 Environmental Procedures

The basic purposes of CEQA are to:

1. Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities;
2. Identify the ways that environmental damage can be avoided or significantly reduced;
3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible;
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved (14 CCR 15002).

The EIR process typically consists of three parts: (1) the Notice of Preparation (NOP) (including the IS), (2) Draft EIR, and (2) Final EIR. Pursuant to Section 15063 of the CEQA Guidelines, the City prepared an IS (Environmental Checklist) for the project in order to determine if the project would have a significant effect on the environment. The NOP was intended to encourage interagency communication concerning the proposed action and provide sufficient background information about the proposed action so that agencies, organizations, and individuals could respond with specific comments and questions on the scope and content of the EIR. Based upon the findings of fact contained within the NOP/IS, the City concluded that an EIR should be prepared. The NOP for an EIR and a description of potential adverse impacts were distributed to the State Clearinghouse, responsible agencies, and adjacent property owners and other interested parties on July 31, 2013. Pursuant to Section 15082 of the CEQA Guidelines, recipients of the NOP were requested to provide responses within 30 days after their receipt of the NOP. After the 30-day public review period of the NOP, RCH held a Community Meeting on September 9, 2013, to gather additional public input on the SP portion of the project. It should be noted that a City Planning Commission Workshop was held on May 23, 2013, to gather input on the preliminary plot plan and building elevation associated with the project from the Planning Commissioners and the public. Copies of the NOP (including the IS) and the NOP distribution list are located in Appendix A. All comments received during the NOP public notice period and City Planning Commission Workshop were considered during the preparation of this EIR. Written comments received on the NOP and a copy of the City Planning Commission Minutes dated May 23, 2013, are included in Appendix A of this EIR.

Based on the scope of analysis for this EIR, including comments received during the NOP public scoping period, the following issues were determined to be potentially significant and are therefore addressed in Chapter 4.0 of this document:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Traffic
- Utilities and Service Systems
- Energy Conservation.

Other potential environmental impact areas, such as agriculture and forestry resources, geology and soils, mineral resources, population and housing, public services, and recreation, were not found to be significant based on the results of the IS. These issues are addressed in Chapter 3.0 of this EIR.

As the lead agency for the project, the City has assumed responsibility for preparing this document. The decision to consider the project is within the purview of the City Planning Commission and City Council. The City will use the information included in this EIR to consider potential impacts to the physical environment associated with the project when considering approval of the project. As set forth in Section 15021 of the CEQA Guidelines, the City, as lead agency, has the duty to avoid or minimize environmental damage where feasible. Furthermore, Section 15021(d) states that:

> CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment (14 CCR 15021(d)).

In accordance with CEQA, the lead agency will be required to make findings for each environmental impact of the project that cannot be mitigated to a less than significant level. If the lead agency determines that the benefits of the project outweigh unmitigated, significant environmental effects, the agency will be required to adopt a statement of overriding considerations stating the reasons supporting their action notwithstanding the project's significant environmental effects.

The EIR will be made available for review to the public and public agencies for 45 days to provide comments on the "sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (14 CCR 15204).

1.2.3 Incorporation by Reference

Information provided in (1) the City of Riverside General Plan 2025 (GP 2025; City of Riverside 2007) and (2) the Final Program Environmental Impact Report for the City of Riverside General Plan 2025 (State Clearinghouse Number 2004021108; certified by the City in November 2007) (Final GP 2025 PEIR), including all subsequent addenda, were reviewed in order to assist environmental review of the project.

The City's General Plan 2025 lays out the City's plans for development on the site and evaluates the environmental effects of the land uses proposed in the General Plan for the site. The information contained within the General Plan 2025 and its EIR contemplated the same hospital campus uses to occur on the site as those proposed by the Specific Plan. Accordingly, these documents are incorporated by reference (14 CCR 15150). These documents are available for review at Riverside City Hall Planning Division, 3900 Main Street, Riverside, California 92522, as well as on the City's website at www.riversideca.gov.

1.2.4 NOP Comment Letters, City Planning Commission Workshop

Prior to the start of the environmental review process, a City Planning Commission Workshop was held on May 23, 2013. The public review period for the NOP/IS began on July 31, 2013, and ended on August 30, 2013. Some agencies and property owners commented on the NOP/IS and those comments can be found in Appendix A. Discussion at the May 23, 2013, Planning Commission meeting included comments about parking, land use compatibility issues, circulation, and architectural styles of the project. None of the comments received changed the issue areas that the IS determined would be discussed in the EIR. In fact, all of the issues and concerns raised in the comments have been fully addressed and analyzed in the EIR. Copies of the comment letters are included in Appendix A.

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CHAPTER 2.0
PROJECT DESCRIPTION

This section describes the objectives of the Riverside Community Hospital (RCH) Specific Plan Expansion Project (project) and Draft Environmental Impact Report (EIR) and provides a detailed description of project characteristics. This section also discusses the discretionary actions required and gives a brief description of the environmental effects, which are evaluated in Chapter 3.0, Effects Found Not to Be Significant, through Chapter 6.0, Cumulative Impact Analysis, of this EIR.

2.1 PROJECT LOCATION

The approximately 22.5-acre project site is located at 4445 Magnolia Avenue in Riverside, California, approximately 0.42 mile west of State Route 91 (SR 91) and approximately 1.60 miles south of SR 60. The site is bounded by 14th Street to the north, Brockton Avenue to the west, and Magnolia Avenue to the east. Evans Sports Complex, Tequesquite Avenue, Calvary Presbyterian Church, and residential development are located to the south (Figure 2.0-1, Regional Map; Figure 2.0-2, Vicinity Map; Figure 2.0-3, Site Plan).

The uses adjacent to the project site are residences to the northwest; Riverside Community Players Theatre, Grant Elementary School and a gas station to the north; muffler services to the northeast; Newman Park and Community Medical Group of Riverside to the east; Riverside City College to the southeast; Calvary Presbyterian Church, Evans Sports Complex, and residences to the south; and commercial and industrial uses to the west.

RCH consists of 12 Assessor's Parcel Numbers (217-070-027, 217-300-009, 217-300-018, 217-300-019, 217-060-024, 217-060-026, 217-060-027, 217-060-028, 217-300-011, 217-300-014, 217-300-015, and 217-111-048). The latitude and longitude of the approximate center of the site is 33°58′35″ N and 117°22′53″ W. The RCH site includes parts of Section 23 of Township 2 South, Range 5 West within the Riverside West 7.5-minute quadrangle, as mapped by the U.S. Geological Survey.

2.2 PROJECT BACKGROUND AND OBJECTIVES

Since 1901, RCH has been, and will continue to be, a prominent provider of healthcare in the Riverside community and the Inland Empire region, providing comprehensive healthcare and highly specialized services. RCH opened on the site in March 1925 after purchasing a 5-acre parcel and constructed a single-story, 85-licensed-bed hospital (see Building A on Figure 2.0-3, Site Plan). A six-story patient care tower was added in 1965 under a Conditional Use Permit (CUP), which grew the hospital to 325 licensed beds (see Building B on Figure 2.0-3). Other hospital-related facilities, including medical office buildings, health education center, women's services building, storage building, parking structures, HeartCare Institute,

and emergency and surgical services, were developed between 1958 and 2002. RCH is owned and operated by an affiliate of Hospital Corporation of America. It is currently equipped with 373 licensed beds and has approximately 1,960 employees, including over 500 highly trained physicians representing over 200 specialties. RCH houses the largest emergency room and trauma center in the Inland Empire, at 50 licensed beds. RCH is one of Riverside County's only ST-elevation myocardial infarction (STEMI (severe heart attack)) receiving centers and is a fully accredited chest pain center. Centers of Excellence include the HeartCare Institute, offering invasive and non-invasive cardiac procedures, the transplant program, and a Level II neonatal intensive care unit (ICU).

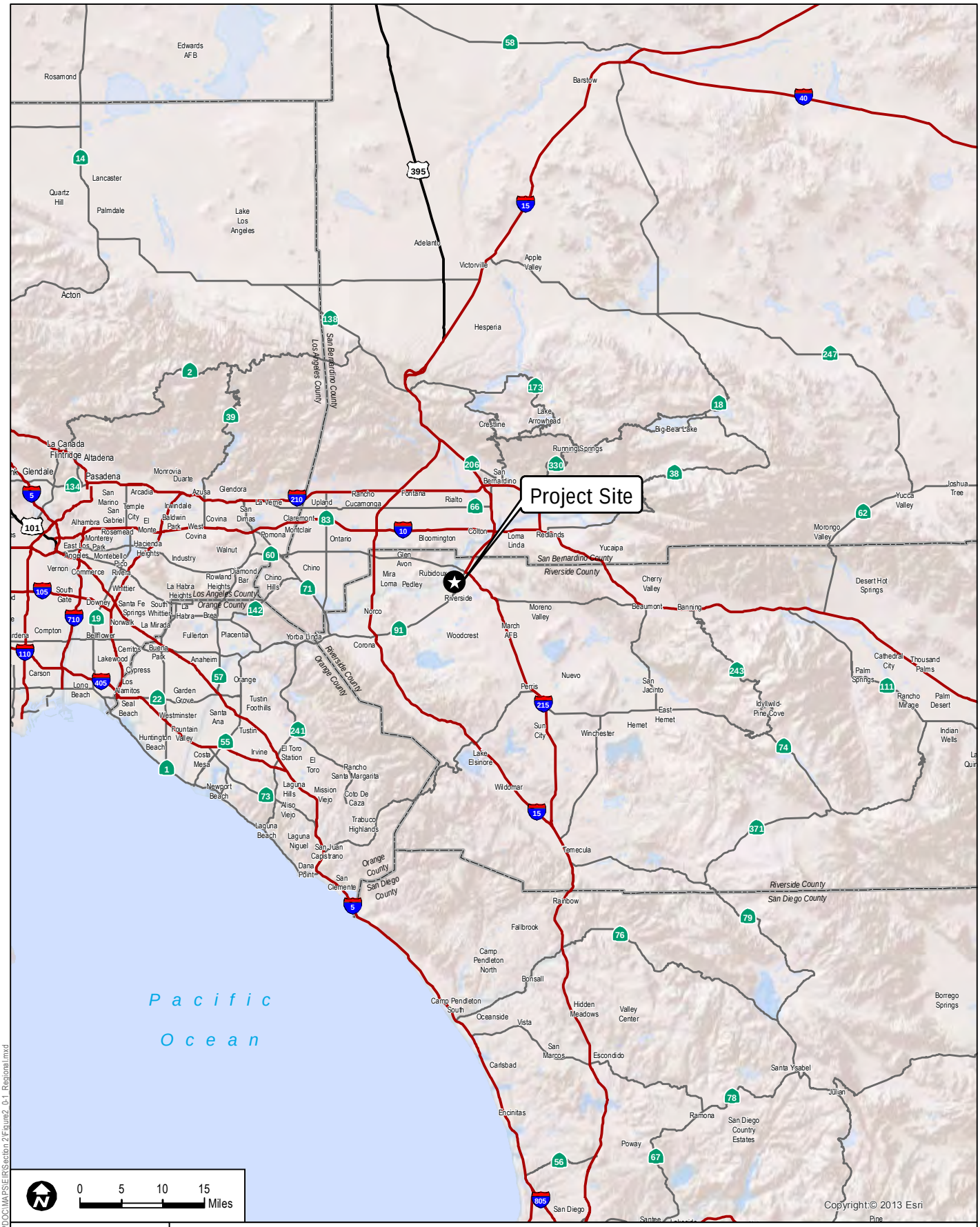
2.2.1 Previous Approvals/History of Project Changes

RCH currently operates under a CUP that dates back to the 1960s and is consistent with the Downtown Specific Plan–Health Care District. Under the Downtown Specific Plan–Health Care District, hospitals are permitted with a CUP. Current RCH campus buildings, including years constructed, are listed in Table 2.0-1 and depicted on Figure 2.0-3, Site Plan.

Table 2.0-1
Existing RCH Uses on Site

ID on Figure 2.0-3	Building/Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed
A	Building A	Hospital – lab, dietary, administration services	58,705	N/A	1925
B	Building B	Hospital	176,040	273	1965
C	Building C	Hospital – ICU and med/surg	111,450	34	1987
D	Building D	Hospital	41,431	66	1958
E	Building E	Hospital	3,565	N/A	1954
F	Building F	Hospital	1,077	N/A	1996
G	Parking structure and helipad	Parking	59,500	N/A	2002
H	Health education center	Meeting rooms	12,543	N/A	1979
I	Parking structure	Parking	96,084	N/A	1982
J	Parking structure	Parking	101,049	N/A	1986
K	Medical Office Building 2	Cancer center	65,503	N/A	1986
L	Brockton Storage Building	Storage	4,450	N/A	1958
M	Women's services building	Community outreach, lactation building	1,900	N/A	1981
N	Medical Office Building1	Medical offices	61,135	N/A	1975
Q	Raincross Medical Office Building	Medical offices	57,754	N/A	1996
		Total Square Footage	852,186		

Source: Kimley-Horn 2014 (Appendix I).
N/A = not applicable; ICU = intensive care unit; med/surg = medical/surgical



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SOURCE: ESRI 2013

FIGURE 2.0-1
Regional Map

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RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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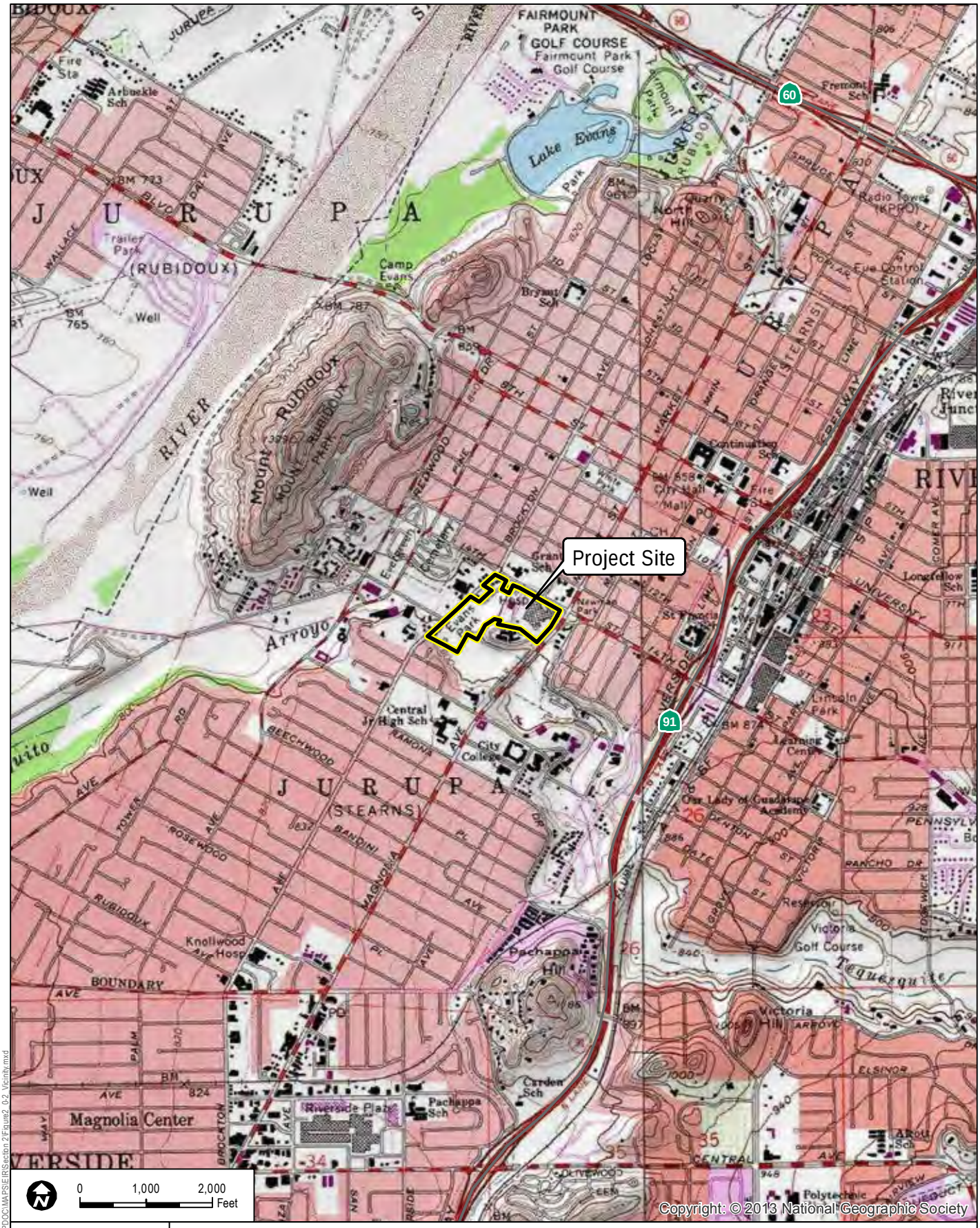

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SOURCE: USGS 7.5-Minute Series Quadrangle (Riverside West, Riverside East)

FIGURE 2.0-2
Vicinity Map

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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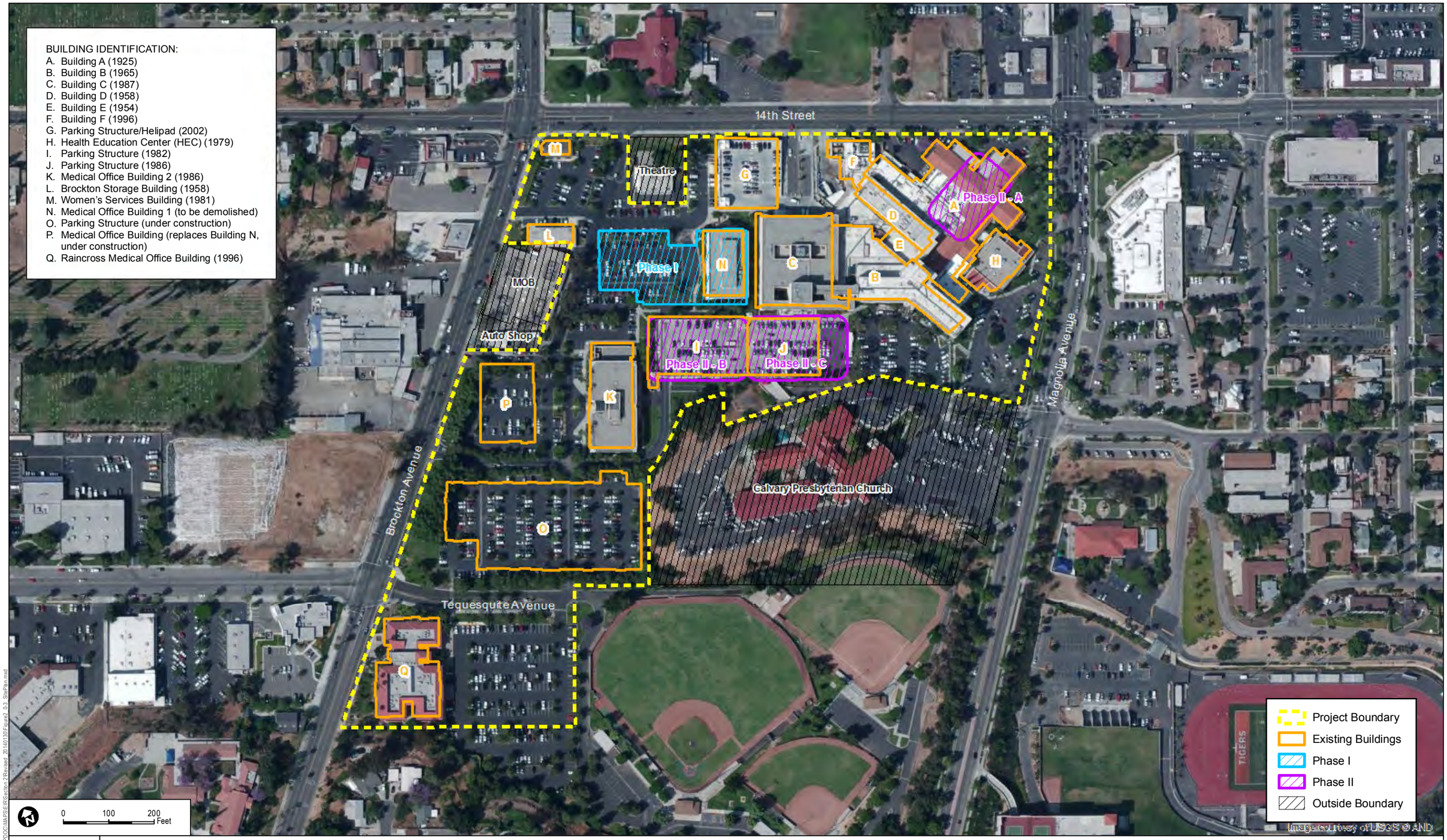

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SOURCE: Kimley-Horn and Associates 5/20/2013, Perkins+Will 5/20/2013, BING 2013

FIGURE 2.0-3

Site Plan

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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2.2.2 Need for the Project

The primary reason for the proposed expansion of RCH is to build new facilities to alleviate noncompliant seismic concerns associated with existing hospital buildings and meet seismic retrofit requirements as required by Senate Bill (SB) 1953. As it exists today, Building A will not be allowed to house acute care services beyond January 1, 2020. Those services will need to be relocated into the proposed Phase I tower. Per SB 1953, Buildings B and D will not be allowed to house acute care services beyond January 1, 2030. In addition to meeting the requirements of SB 1953, the overall hospital expansion is needed to improve access to healthcare for a growing population as well as to modernize hospital facilities. In the event of a disaster, RCH would be the primary hospital that would serve the community of Riverside.

The existing hospital is operating under a 1960s CUP. Any future development and expansion would likewise require approval from the City of Riverside (City). The proposed SP will make future development more streamlined in that it will supersede existing entitlements, outline existing uses and future uses, and lay out a cohesive set of guidelines that will provide City staff, RCH, and the public with a clear understanding of how growth and development will occur at the site. The use of the SP will allow City staff to expedite the entitlement processes for future development.

2.2.3 Project Objectives

RCH proposes the redevelopment and expansion of its existing hospital campus facilities (see Section 2.3).

The overall project goal is to provide a comprehensive specific plan that will include a roadmap to guide future expansion plans on the RCH campus and clearly define the extent and location of future development on the RCH campus. The SP will identify design and development requirements for the medical service facilities and supporting uses on the RCH campus to facilitate a cohesive and efficient orientation for the public, employees, and customers of RCH. The SP will also allow for an expedited entitlement process for future development on the RCH campus.

The SP objectives (project objectives) are as follows:

- Demolish, rehabilitate, and construct new structures within the RCH campus in order to comply with the mandated requirements of SB 1953, the Alfred E. Alquist Seismic Act, to replace unsafe applicable hospital facilities by the year 2030.
- In order to meet the requirements of Nonstructural Performance Category 5 by 2030, construct facilities that provide a self-sustaining hospital that would provide water and wastewater holding tanks sufficient for 72 hours in the event of a disaster.

- Develop a comprehensively planned, integrated medical campus within the existing hospital campus boundaries that includes an approximately 600-hospital-licensed bed buildout capacity, with acute care services, medical offices, and ancillary services for the community and new employment opportunities in downtown Riverside.
- Increase hospital operational efficiencies by providing a variety of services, such as cancer care, ER/trauma, imaging, neurology and neurosurgery, a center for surgical weight loss, transplant programs, labs, and medical office space in a central campus-like setting.
- Provide space for research and medical education facilities in cooperation with the Medical School at University of California, Riverside.
- Provide a roadmap to guide future development plans on the campus by providing design and development standards to be implemented by future streamlined entitlement processes for future campus expansions.

2.3 PROJECT CHARACTERISTICS

2.3.1 California Environmental Quality Act Baseline

The RCH campus currently occupies approximately 852,186 square feet of development. Figure 2.0-3, Site Plan, depicts existing structures, existing structures to be demolished, and previously approved structures to be built. For purposes of the preparation of the SP and analysis in the EIR, any approved ongoing development currently under construction or commencing construction within approximately 12 months of the release of the Notice of Preparation is considered part of the existing development/approvals baseline. The following describes ongoing development currently under construction.

New Parking Structure

A new, five-level, 385,500-square-foot, 1,060-parking-space structure was approved under Planning Case P12-0643 by the City on February 5, 2013. A Notice of Exemption (Class 32/ Section 15332 (In-Fill Development)) was filed with the Riverside County Clerk on February 7, 2013. The proposed parking structure (Building O) involves the displacement of 283 surface parking spaces at the northeast corner of Brockton Avenue and Tequesquite Avenue. The parking structure is currently under construction and is anticipated to be completed by February 2014. It is anticipated that the proposed parking structure will provide sufficient parking at least through Phase IIb of the project.

New Medical Office Building (Building P)

A new, three-story, 61,000-square-foot medical office building was approved under Design Review Planning Case P12-0779 on May 10, 2013. A Notice of Exemption (Class 32/Section 15332 (In-Fill Development, Section 15061(b)(3)) was filed with the Riverside County Clerk on May 15, 2013. The proposed medical office building involves the displacement of 112 existing surface parking spaces at the northeast corner of Brockton Avenue and Tequesquite Avenue (identified as Building P on Figure 2.0-3, Site Plan). The purpose of constructing the new medical office building is to provide a medical office building to replace the existing Building N, Medical Office Building 1, which building is proposed for demolition to accommodate the new SB 1953-compliant hospital bed tower in Phase I. There will be no net increase in number of physicians/staff because Building N will not be reoccupied; it will remain vacant until it is demolished. The new medical office building, Building P, is scheduled for completion in March 2014.

These structures are expected to be completed in early 2014. The approvals for these projects occurred under the existing CUP and prior to the start of the SP/EIR. Therefore, these two structures (Buildings O and P) are included in the baseline scenario and are analyzed as part of the existing conditions in the relevant EIR sections. Table 2.0-2 includes the existing RCH buildings/structures as well as the new parking structure (Building O) and new medical office building (Building P), all to be considered as part of the baseline conditions that will be included in the SP and analyzed in the EIR.

Table 2.0-2
Existing and Approved RCH Uses on Site – Baseline Conditions

ID on Figure 2.0-3	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed
A	Building A	Hospital – lab, dietary, administration services	58,705	N/A	1925
B	Building B	Hospital	176,040	273	1965
C	Building C	Hospital – ICU and med/surg	111,450	34	1987
D	Building D	Hospital	41,431	66	1958
E	Building E	Hospital	3,565	N/A	1954
F	Building F	Hospital	1,077	N/A	1996
G	Parking structure	Parking	59,500	N/A	2002
H	Health education center	Meeting rooms	12,543	N/A	1979
I	Parking structure	Parking	96,084	N/A	1982
J	Parking structure	Parking	101,049	N/A	1986
K	Medical Office Building 2	Cancer center	65,503	N/A	1986
L	Brockton Storage Building	Storage	4,450	N/A	1958
M	Women's services building	Community outreach, lactation building	1,900	N/A	1981

Table 2.0-2
Existing and Approved RCH Uses on Site – Baseline Conditions

ID on Figure 2.0-3	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed
N	Medical Office Building 1	Medical offices	61,135	N/A	1975
O	Parking structure[a]	Parking – 1,060 spaces	385,500	N/A	Construction anticipated to be completed 2014
P	Medical office building	Medical offices	61,000	N/A	Construction anticipated to be completed 2014
Q	Raincross Medical Office Building	Medical offices	57,754	N/A	1996
		Total Square Footage	1,298,686		

Source: Kimley-Horn 2014 (Appendix I).
N/A = not applicable; ICU = intensive care unit; med/surg = medical/surgical

2.3.2 Project

Construction Components and Phasing

RCH is proposing a new SP on the project site. A site master plan has been developed and includes both short-term and long-range planning goals that cover construction over a 30-year period. As previously mentioned, the primary focus of Phase I of the project is to construct a new hospital bed tower to alleviate seismic concerns associated with existing buildings and to meet seismic retrofit requirements as required by SB 1953. Phase II of the project also addresses seismic concerns and includes potential future long-range development. Phase I and Phase II of the project are described in this section.

Phase I – 2014–2017

Phase I of the SP will focus on a new, 251,500-square-foot, seven-story hospital bed tower addition that will initially house up to 105 new licensed beds (with capacity for an additional 84 licensed beds) with 35 intensive care patient rooms and 70 medical and surgical patient rooms to accommodate families, as well as expanding its service offerings to more critically ill patients, a laboratory, and food services operations. This would bring the total licensed bed count on the hospital campus to approximately 478. The hospital bed tower would also accommodate the relocation of acute care services such as dietary and laboratory services currently housed in Building A, which is not compliant with SB 1953. The hospital currently employs approximately 1,960 employees. 187 employees will relocate from Building A (119 laboratory employees and 68 dietary employees) to the new Phase I hospital tower and an additional 330 estimated

employees would be needed to serve the new tower, totaling approximately 2,290 employees campus-wide. During Phase I, Building A would be used for hospital administrative support.

Construction of the new hospital bed tower for Phase I would eliminate 69 parking spaces (see Figure 2.0-3, Site Plan). The existing Building N, Medical Office Building 1, would be demolished under Phase I to accommodate the new hospital bed tower. Building N would already be vacant prior to demolition as the physicians/staff would be relocated to the new Building P (which will be completed in March 2014 under the baseline/existing conditions). Also included in Phase I, Building B is proposed for a full seismic upgrade, including new windows as a result of the retrofit. Table 2.0-3 lists the existing RCH buildings/structures with the addition of the Phase I components of the project.

Table 2.0-3
Existing and Approved RCH Uses on Site, including Phase I of the Project

ID on Figure 2.0-3	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed	Action
A	Building A	Hospital – lab, dietary, administration services	58,705	N/A	1925	Dietary/lab to move to the Phase I bed tower; Building A used for hospital administrative support
B	Building B	Hospital	176,040	273	1965	No change in footprint, but seismic upgrades to occur
C	Building C	Hospital – ICU and med/surg	111,450	34	1987	No change
D	Building D	Hospital	41,431	66	1958	No change in footprint, but seismic upgrades to occur
E	Building E	Hospital	3,565	N/A	1954	No change
F	Building F	Hospital	1,077	N/A	1996	No change
G	Parking structure	Parking	59,500	N/A	2002	No change
H	Health education center	Meeting rooms	12,543	N/A	1979	No change
I	Parking structure	Parking	96,084	N/A	1982	No change
J	Parking structure	Parking	101,049	N/A	1986	No change
K	Medical Office Building 2	Cancer center	65,503	N/A	1986	No change
L	Brockton Storage Building	Storage	4,450	N/A	1958	No change
M	Women's services building	Community outreach, lactation building	1,900	N/A	1981	No change
N	Medical Office Building 1	Medical offices	61,135	N/A	1975	To be demolished as part of Phase I of the project

Table 2.0-3
Existing and Approved RCH Uses on Site, including Phase I of the Project

ID on Figure 2.0-3	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed	Action
O	Parking structure[a]	Parking – 1,060 spaces	385,500	N/A	Construction anticipated to be completed 2014	Part of baseline conditions
P	Medical office building[a]	Medical offices	61,000	N/A	Construction anticipated to be completed 2014	Part of baseline conditions
Q	Raincross Medical Office Building	Medical offices	57,754	N/A	1996	No change
Phase I	New Phase I hospital bed tower	Hospital	251,500	189		Phase I of the project
Total Square Footage[b]			1,489,051			

Source: Kimley-Horn 2014 (Appendix I).
N/A = not applicable; ICU = intensive care unit; med/surg = medical/surgical
Note: Shaded rows represent changes from baseline conditions.
[a]Part of baseline conditions.
[b]Building N is not calculated in the total square footage as it is being demolished as part of Phase I of the project.

Phase II – 2017–2043

During Phase II of the project, it is anticipated that several new structures would be constructed on the existing 22.5-acre hospital campus over a 30-year period. Phase II would be broken down into Phase IIa, Phase IIb, and Phase IIc.

Phase IIa – 2017–2024

Phase IIa would occur between 2017 and 2024 and would consist of the demolition of Building A since it is not in compliance with SB 1953 and can no longer house acute care services. An approximately 100,000-square-foot, mixed-use building would be proposed on the Building A site. Also, the buildout of the shell space (84 additional licensed beds) in the Phase I tower would most likely occur during this phase (or earlier if necessary). Once the Phase I tower is built out, the maximum licensed bed capacity on campus would be 562. Additional surface or structure parking is also anticipated to be needed in this phase to support the new space.

Phase IIb – 2024–2029

Phase IIb would occur between 2024 and 2029 and would consist of a second new, estimated nine-story, 600,000+-square-foot replacement bed tower, totaling 339 licensed beds (273 licensed beds relocated from Building B and 66 licensed beds relocated from Building D to the

proposed Phase IIb replacement bed tower). The relocation of 339 licensed beds would keep the number of licensed beds on campus at 562. Phase IIb focuses on relocating licensed beds and acute care services out of Building B and Building D to the new second tower, as those buildings are no longer in compliance with SB 1953. Once the licensed beds are relocated to the new second hospital bed tower, Building B and Building D will be used for outpatient, skilled nursing, support, and education (e.g., University of California at Riverside program space). Phase IIb contemplates demolishing the existing parking structures (identified as I and J on Figure 2.0-3, Site Plan) prior to the construction of the Phase IIb replacement bed tower. Some additional convenience parking could be included during this phase.

Phase IIc – 2030–2043

Phase IIc would occur between 2030 and 2043 and is expected to include the following:

- Addition of 38 licensed beds, to take the campus-wide total to 600 licensed beds (this could occur in Phase IIb if need is demonstrated prior to 2030)
- Construction of ancillary services as necessary
- Construction of surface or structured parking as needed to support growth.

Long-range development as part of Phase IIc of the project could include future acute care expansions, parking structures, or other ancillary uses including, but not limited to, the following:

- Acute care services
- Central utility plants
- Medical office buildings and clinics
- Outpatient services buildings
- Education centers
- Dental clinics
- Imaging centers
- Pharmacies
- Wellness centers
- Physical therapy or rehabilitation centers
- Community centers
- Optometry services
- Medical retail (medical supplies)
- Off-site street parking, parking structures, or surface parking lots
- Hotel facilities.

Table 2.0-4 lists the existing RCH buildings/structures as well as Phase I, Phase IIa, and Phase IIb components of the project.

Table 2.0-4
Existing and Approved RCH Uses on Site, Phase I, Phase IIa, and Phase IIb of the Project

ID on Figure 2.0-3	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed	Action
A	Building A	Hospital – lab, dietary, administration services	58,705	N/A	1925	To be demolished as part of Phase IIa of the project
B	Building B	Hospital	176,040	273	1965	Part of Phase IIb of the project: 273 beds will be moved to the new Phase IIb replacement bed tower; Building B will be used for outpatient, skilled nursing, support, and education
C	Building C	Hospital – ICU and med/surg	111,450	34	1987	No change
D	Building D	Hospital	41,431	66	1958	Part of Phase IIb of the project: 66 beds will be moved to the new Phase IIb replacement bed tower; Building D will be used for outpatient, skilled nursing, support, and education
E	Building E	Hospital	3,565	N/A	1954	No change
F	Building F	Hospital	1,077	N/A	1997	No change
G	Parking structure	Parking	59,500	N/A	2002	No change
H	Health education center	Meeting rooms	12,543	N/A	1979	No change
I	Parking structure	Parking	96,084	N/A	1983	To be demolished as part of Phase IIb of the project
J	Parking structure	Parking	101,049	N/A	1983	To be demolished as part of Phase IIb of the project
K	Medical Office Building 2	Cancer center	65,503	N/A	1986	No change
L	Brockton Storage Building	Storage	4,450	N/A	1958	No change
M	Women's services building	Community outreach, lactation building	1,900	N/A	1981	No change
N	Medical Office Building 1	Medical offices	61,135	N/A	1975	To be demolished as part of Phase I of the project

Table 2.0-4
Existing and Approved RCH Uses on Site, Phase I, Phase IIa, and Phase IIb of the Project

ID on Figure 2.0-3	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed	Action
O	Parking structure[a]	Parking – 1,060 spaces	385,500	N/A	Construction anticipated to be completed 2014	Part of baseline conditions
P	Medical office building[a]	Medical offices	60,897	N/A	Construction anticipated to be completed 2014	Part of baseline conditions
Q	Raincross Medical Office Building	Medical offices	57,754	N/A	1996	No change
Phase I	New Phase I hospital bed tower	Hospital	251,500	189		Part of Phase I of the project
Phase II-b	New Phase II replacement bed tower	Hospital	600,000+	377[b]		Part of Phase IIb of the project
Phase II-a	Mixed-use building in location of Building A	Medical offices	100,000	N/A		Phase IIa of the project
Total Square Footage[c]			1,994,245			

Source: Kimley-Horn 2014 (Appendix I).
N/A = not applicable; ICU = intensive care unit; med/surg = medical/surgical
Notes: Phase IIc is not included in the table since specific project development details under Phase IIc is not known at this time.
Shaded rows represent changes from baseline conditions and Phase II of the project.
[a] Part of baseline conditions.
[b] Phase IIb hospital bed tower licensed beds includes the licensed beds that would be relocated from Building B (273 licensed beds) and Building D (66 licensed beds) and future addition of 38 licensed bed to the Phase IIb hospital bed tower (273+66+28=377 licensed beds).
*Buildings A, I, J, and N are not calculated in the total square footage as they are proposed for demolition as part of Phase I or Phase II of the project.

Project- and Programmatic-Level Analysis

The project is divided into phases: Phases I, IIa, IIb, and IIc. Phase I will be analyzed at a project level in this EIR. At this time, Phase IIa, IIb, and IIc's general locations are known; however, specific project components are not known. Because specific development plans for Phases IIa, IIb, and IIc are not available at this time, analysis for these phases will be addressed at a program level in this EIR.

2.3.3 Project Design Features and Construction Measures

RCH has incorporated project design features and construction measures into the project to reduce the potential for environmental effects. Construction will be performed by qualified

contractors, and contract documents, plans, and specifications will incorporate stipulations regarding standard legal requirements and acceptable construction practices including, but not limited to, traffic control during construction activities, noise, visual impacts, geologic conditions, drainage and water quality improvements, water quality protection and erosion and sedimentation control, construction-related solid waste, water supply, hazardous waste, and hazardous materials during construction. The project will be designed in accordance with the State of California Building Code (CBC) and the Riverside Municipal Code requirements. These measures are included in Table 2.0-5, Summary of Project Design Features and Construction Measures, and referenced throughout the impact discussions in Sections 4.1–4.12 of the EIR. Additionally, Table 2.0-6 identifies the project design features that would be applied to the project in order to reduce greenhouse gas emissions. The project design features and construction measures listed in Tables 2.0-5 and 2.0-6 are incorporated into the SP and EIR as design features of the project. Where applicable, some of these items may be included as mitigation measures.

Table 2.0-5
Summary of Project Design Features and Construction Measures

Subject Area	Design Feature or Construction Measure
Traffic control during construction activities	RCH has prepared a traffic control plan as part of the Traffic Study that specifically addresses construction traffic and possible lane closures within the City's public rights-of-way. The traffic control plan has been approved by the City. The traffic control plan includes provisions for construction times and control plans to allow motorist, bicyclist, pedestrian, and bus access throughout construction. The traffic control plan includes provisions to ensure emergency vehicle passage at all times, and includes signage and flagmen when necessary. The traffic control plan includes provisions for coordinating with local school hours and emergency service providers regarding construction times.
Noise	Construction activities would occur Monday through Friday from 7:00 a.m.–7:00 p.m., except on state and federal holidays, and on Saturdays from 8:00 a.m.–5:00 p.m. (in compliance with the City's Municipal Code, Section 7.35).
Visual impacts	The project has been designed to alleviate many potential visual impacts. While the program requirement will drive the overall massing of the buildings, steps have been taken to minimize the overall appearance and bring down the scale of the tower. The base of the buildings will take into account pedestrian scale, pedestrian connectivity, landscaped areas, etc.
Geologic conditions	When final plans are known for structures, a design-level geotechnical investigation will be conducted to evaluate the potential for ground settlement, seismic slope instability, and ground-shifting hazards that may affect the approved project and all associated facilities. The geotechnical investigation will document the types of soils on the site, the type and extent of fill material on the site, and the location and type of faults existing on the site. Where these hazards are found to exist, appropriate engineering design and construction measures that meet CBC design parameters shall be incorporated into the project designs. Appropriate measures for project facilities could include construction of pile foundations, ground improvement of artificial fill areas with new artificial fill, regrading and compaction, and impermeable liners below bioswales to limit infiltration. The geotechnical investigation shall be prepared by a certified geologist and be submitted to City geology staff 90 days prior to construction of proposed structures.

Table 2.0-5
Summary of Project Design Features and Construction Measures

Subject Area	Design Feature or Construction Measure
Drainage and water quality improvements	The project design includes the following best management practices (BMPs) to improve overall site permeability and reduce off-site drainage flow: • Curbs and gutters will collect runoff and convey to Filterra bioretention units. • Parking lots will be designed to minimum required pavement width, according to City guidelines. • Vegetated bioswales will be used to the maximum extent possible to achieve filtration and natural treatment of the stormwater runoff from rooftops. • Where bioswales cannot be used to treat runoff, stormwater runoff from proposed structure roofs and paved areas will be conveyed to Filterra bioretention units to provide treatment before being discharged into the underground storm drain system. • Stormwater drainage from loading dock areas will be collected and treated prior to discharge off site. • On-site soils within landscaped areas will be scarified. • The City's Landscape Regulations (Chapter 19.570) will be adhered to for landscaped areas. Additional native trees and large shrubs will be planted where needed. New trees will be planted according to the City's design guidelines for the area required per tree. The landscaping will meet the City's approved landscape materials list. • Rain shutoff devices to prevent irrigation during and after precipitation will be included in the design. The irrigation system will include control mechanisms to allow staff to adjust water supplies to areas based on need. • Stormwater conveyance system inlets will include language indicating that water flows to the local water resource. • Trash receptacles will be provided on site with signage. • A fire sprinkler will be designed to discharge into the sanitary sewer. • Bioswales, Filterra bioretention units, parking lots, and trash pickup will be maintained as part of the ongoing landscaping maintenance costs.
Water quality protection and erosion and sedimentation control	In compliance with the National Pollution Discharge Elimination System (NPDES), the applicant will prepare a stormwater pollution prevention plan (SWPPP) that specifies BMPs to be implemented during project construction to prevent pollutants from contacting stormwater and control erosion and sedimentation. The SWPPP will be prepared and submitted to the Regional Water Quality Control Board (RWQCB) for review and approval prior to the start of construction.
Construction-related solid waste	RCH will designate a solid waste management coordinator who will execute the project's City-approved waste management plan. The solid waste management coordinator will work with contractors to estimate quantities of each type of material that is to be salvaged, recycled, or disposed of as waste; oversee plans for separation of materials; and review procedures for periodic collection and transportation of materials.
Hazardous waste	As required by state hospital licensing requirements, for Phases I, IIa, IIb, and IIc, RCH will update its internal Hazardous Materials and Waste Management Plan and Hazardous Materials Business Plan to reflect transport, storage, use, and disposal of hazardous materials following construction of each phase of the project. These updates would include the use of additional chemicals currently used at the hospital as well as any new chemicals required to operate the project's components. The updated documents will be submitted to County of Riverside Department of Environmental Health. All chemicals shall be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5).

Table 2.0-5
Summary of Project Design Features and Construction Measures

Subject Area	Design Feature or Construction Measure
Hazardous materials during construction	As part of state hospital licensing requirements, RCH will prepare a hazardous substance management, handling, storage, disposal, and emergency response plan to be followed during all phases of construction that will ensure adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, and will ensure that construction of the project will not create a significant hazard to the public or the environment.
Control of petroleum products in storage tanks	In accordance with the Code of Federal Regulations, Title 40, Part 112 (40 CFR 112), prior to certificate of occupancy issuance for Phases I, IIa, IIb, and IIc, RCH will update its Spill Prevention Control and Countermeasures plan.
Cultural resources	During any phase of construction, RCH shall comply with Health and Safety Code Section 7050.5 addressing requirements should human remains be accidentally discovered during ground-disturbing activities.

Table 2.0-6
Project Design Features to Reduce Greenhouse Gases

Building Component	Design Feature
Roof	Single-ply thermoplastic roof membrane over 5/8-inch exterior gypsum sheathing over rigid insulation over metal deck with lightweight concrete fill.
	Minimum R-30 insulation.
	Certified compliant membrane with California Energy Commission definition of a cool roof. Based on G410-20 feltback membrane by Sika Sarnafil, Inc.; minimum 80 mil, white.
	Initial Solar Reflectance: Minimum measured initial solar reflectance value of 0.85 plus or minus 0.02, when tested in compliance with ASTM C 1549, ASTM E 903, or ASTM E 1918.
	Three-Year Aged Solar Reflectance: Minimum measured solar reflectance value of 0.60, when maintained under normal conditions and tested in compliance with ASTM C 1549, ASTM E 903, or ASTM E 1918.
Exterior wall	Type 1: Cast stone over continuous rigid insulation on fluid applied air/vapor barrier over 0.625-inch exterior gypsum sheathing over 6-inch metal stud framing with bat insulation; total system minimum R-19.
	Type 2: Three-inch insulated composite metal panel over fluid applied water protection over 0.625-inch exterior gypsum sheathing over 9-inch metal stud framing with bat insulation; total system minimum R-19.
	Type 3: Six-inch architectural precast concrete over 6-inch metal stud framing, used in non-conditioned garage stair tower.
Glazing	Vision Glass Insulating Glazing Units (IGUs): Design is based on PPG Solarban R100 solarblue tinted over clear glass (which has visible light-exterior reflectance of 15% (Viracon 2012)).
	Winter Nighttime Center-of-Glass (COG) U-Factor: Maximum 0.29 BTU per hour per square foot per degree Fahrenheit (°F).
	Summer Daytime COG U-Factor: Maximum 0.27 BTU per hour per square foot per °F.
	Total Shading Coefficient: Maximum 0.22, when calculated using a spectral data file determined in accordance with NFRC 300 and NFRC Verification Procedures.
	Total Solar Heat Gain Coefficient: Maximum 0.19, when determined in compliance with NFRC 200.
	Ceramic-Coated Spandrel Glass IGUs: Design is based on 1-inch VE1-42 Insulating HS/HS Spandrel by Viracon (which has visible light-exterior reflectance of 15% (Viracon 2012)).

Table 2.0-6
Project Design Features to Reduce Greenhouse Gases

Building Component	Design Feature
	Winter Nighttime COG U-Factor: Maximum 0.29 BTU per hour per square foot per °F.
	Summer Daytime COG U-Factor: Maximum 0.27 BTU per hour per square foot per °F.
Lighting systems – interior (interior lighting systems will not be necessary in all rooms)	Provide individual lighting controls for minimum of 90% of building occupants to enable adjustments to suit individual task needs and preferences.
	Provide dimming or multilevel switching for all spaces larger than 100 square feet in which the connected lighting load exceeds 0.8 watts (W) per square foot.
	Provide time switches, photoelectric switches, occupancy sensors, and light sensors.
	Provide dimming controls.
	LED exit signs used.
Exterior lighting	55 W compact fluorescent lamp, 39 W LED lamp pole lights, 39 W compact fluorescent bollard light.
Indoor building water use	Toilets – 1.28 gallons/flush. Not all toilets will comply with the indoor building water use.
	Urinals – 1.0 pints/flush.
	Faucets – 0.5 gallons/minute. Not all faucets will comply with the indoor building water use.
	Showers – 2.5 gallons/minute.
Outdoor water use	Irrigation – Fully automatic, electronically controlled irrigation using low-flow spray heads, rotors, and drip irrigation technology.
	Irrigation Control – Controllers equipped with rain-sensing shutoff switches.
	Water Usage – Modify plant palette to use water-efficient, drought-tolerant, naturalized plant materials.

2.4 DISCRETIONARY ACTIONS

Implementation of the project will require permits or other forms of approval from public agencies or other entities prior to construction of the project. They include, but are not limited to, the following.

City of Riverside

Certification of this EIR (Planning Case P13-0207), General Plan Amendment (Planning Case P13-0208), Rezone (Planning Case P13-0209), Site Plan Review (Planning Case P13-0210), SP (Planning Case P13-0211), and other discretionary actions shall be reviewed and/or approved by Planning Staff, City Planning Commission, and/or City Council.

Plan check process and approval is required.

Regional Water Quality Control Board, Santa Ana Region

National Pollutant Discharge Elimination System (NPDES) Construction General Permits will be required for grading activities of 1 acre or larger. Since the project would disturb

more than 1 acre of soil, the applicant must file a Notice of Intent with the Regional Water Quality Control Board (RWQCB), Santa Ana Region, and obtain a General Construction Activity Stormwater Permit pursuant to the NPDES regulations established under the Clean Water Act. This permit requires preparation and implementation of a Stormwater Pollution Prevention Plan, which is intended to prevent degradation of surface and ground waters during the grading and construction process.

A report of waste discharge shall be submitted to the RWQCB to obtain either a waste discharge requirement or a waiver for any impacts to waters of the state.

South Coast Air Quality Management District

A fugitive dust control plan submitted to the South Coast Air Quality Management District for approval will be required prior to issuance of grading permits (SCAQMD Rule 403).

Permits for stationary sources, such as those proposed to be installed in the central plant (e.g., boilers, emergency generators), will be required prior to project approval.

Office of Statewide Health Planning and Development

The Office of Statewide Health Planning and Development's (OSHPD's) Facilities Development Division will review and approve the plans and specifications of the proposed hospital building towers, medical office buildings, and related hospital facilities as well as any alterations to existing buildings to ensure compliance with the provisions of the CBC, Title 24, California Code of Regulations (OSHPD 2011).

2.5 REFERENCES

Kimley-Horn (Kimley-Horn and Associates Inc.). 2014. *Traffic Impact Analysis for the Riverside Community Hospital Expansion Project in the City of Riverside*. January 2014.

OSHPD (Office of Statewide Health Planning and Development). 2011. "About Us." Accessed June 6, 2013. http://www.oshpd.ca.gov/FDD/About_Us/History/Index.html#plnrvw.

CHAPTER 3.0
EFFECTS FOUND NOT TO BE SIGNIFICANT

3.1 EFFECTS FOUND NOT TO BE SIGNIFICANT DURING PREPARATION OF THE NOTICE OF PREPARATION (NOP)

California Environmental Quality Act (CEQA) provides that an environmental impact report (EIR) shall focus on the significant effects on the environment, discussing the effects with emphasis in proportion to their severity and probability of occurrence. Effects dismissed in an initial study (IS) as clearly insignificant and unlikely to occur need not be discussed further in the EIR unless information inconsistent with the finding in the IS is subsequently received.

Section 21100 (c) of the Public Resources Code states that an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were, therefore, not discussed in detail in the draft EIR (DEIR) (California Public Resources Code, Section 21000 et seq.). Section 15128 of the CEQA Guidelines adds, "Such a statement may be contained in an attached copy of an IS" (14 CCR 15000 et seq.).

The IS (Environmental Checklist) prepared and circulated with the NOP for public review on July 31, 2013, for the project (Appendix A) concluded that the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project) would not result in potentially significant impacts to the following areas:

- **Agricultural Resources –** The project site is designated "Urban and Built-Up Land" by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (DOC 2010). The project site is already developed with an existing hospital campus and is not located on any Farmland designations; therefore, no conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use would occur. According to the DOC's Williamson Act Map (2012) and as depicted in Figure OS-3, Williamson Act Preserves in the City's GP 2025 Open Space and Conservation Element (2007), there are no Williamson Act contracts on the project site. No forest land, timberland, or Timberland Production areas (as defined in the Public Resources Codes 12220(g) and 4526 or Government Code 51104(g)) are located within or adjacent to the project site; therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use. No impacts to agricultural resources are expected.
- **Geology and Soils –** The project site does not have active faults crossing the site and is not within a fault hazard zone. The project site is located approximately 7 miles from the San Jacinto Fault Zone. Although the site is not within a fault hazard zone and the potential for fault rupture is low, the existing buildings (Buildings A, B, and

D) are currently non-compliant with Senate Bill (SB) 1953, the Alfred E. Alquist Hospital Facilities Seismic Safety Act. SB 1953 requires replacement or retrofitting of hospital buildings to higher seismic safety standards by 2030. Buildings B and D will be retrofitted to comply with the mandated requirements of SB 1953 as part of Phase I of the project. Building A will be demolished during Phase IIa of the project. An SP is being prepared for the project to provide guidelines for project design to ensure that the construction of the buildings meet California Building Code (CBC) standards. Proper engineering design and construction in conformance with CBC standards would ensure that seismic ground shaking would be less than significant. Additionally, the Office of Statewide Health Planning and Development's (OSHPD's) Facilities Development Division will review and approve the plans and specifications of the proposed hospital building towers, medical office buildings, and related hospital facilities as well as any alterations to existing buildings to ensure compliance with the provisions of the CBC, Title 24, California Code of Regulations (OSHPD 2011). The potential for seismically induced landsliding, soil erosion or loss of topsoil, liquefaction, and expansive soil is considered to be low. According to Figure PS-2 of the City's GP 2025, the project site is within medium, high, and very high liquefaction zones (City of Riverside 2007). However, based on the groundwater measurements of the Geotechnical Report prepared by AMEC (Appendix K) and prior investigations, groundwater levels are expected to be 20 feet below the ground surface (AMEC 2013). Since the on-site soils below a depth of 10 to 20 feet are in a dense to very dense state, AMEC determined that the liquefaction potential at the site is low. Impacts related to ground failure such as from liquefaction are considered less than significant based on the information provided by the AMEC report, as well as due to the fact that the new structures being proposed by the project will all be designed to CBC standards to anticipate impacts associated with seismic-related ground failure. Short-term erosion effects during the construction phase of the project would be prevented through required implementation of a stormwater pollution prevention plan through compliance with the National Pollutant Discharge Elimination System program and the incorporation of best management practices intended to reduce soil erosion. As such, impacts related to geology and soils are less than significant.

- **Mineral Resources –** The project lies within Mineral Resource Zone (MRZ) 3 as depicted on Figure OS-1 of the City's GP 2025 (City of Riverside 2007), indicating that the area contains known or inferred mineral occurrences of undetermined mineral resources significance. The project site has been previously disturbed and is developed with an existing hospital campus. Based on the MRZ-3 designation and given that the site is currently developed, impacts related to mineral resources are less than significant.

- **Population/Housing –** No housing is being proposed with this project. However, the project would require additional employees to serve the new hospital bed towers, mixed-use medical buildings, and any additional hospital expansions. According to the SCAG Growth Forecast (Appendix to the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy), employment is anticipated to grow from 151,500 in 2008 to 217,800 in 2035 in the City of Riverside (SCAG 2012, 35). Total employees/staff at the end of Phase I would be 2,290 (RCH currently employs 1,960 employees; an additional 330 estimated employees would be needed to serve the new tower). It is not yet known how many employees would be required upon the completion of the hospital expansion (after Phase IIc has been completed); however, the increase in employment would be minimal in comparison to the anticipated increase of the SCAG Growth Forecast. Overall, the project would indirectly stimulate population growth through the addition of new hospital staff members. However, the growth would be consistent with employment growth envisioned in local and regional land use plans and in projections made by regional planning authorities, since the planned growth of RCH and its land use intensity have been factored into the underlying growth projections of the SCAG 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy.
- **Public Services –** The project will be adequately served by the City's Fire Department Station 1 and City's Police Department. The proposed hospital expansion would not result in an increased demand for school services, parks, and other public facilities. Therefore, impacts related to public services are less than significant.
- **Recreation –** The project is a hospital expansion project to better serve the existing community and the Inland Empire. The project does not propose residential uses and therefore would not result in a direct increase in the use of parks and recreational facilities. The City's Park and Recreation Department requests fees to be paid for all development projects within the City in order to ensure that park development and open space needs are adequately provided for. Therefore, impacts related to recreation are less than significant.

Therefore, as stated in the IS/NOP, these topics are not addressed further in the EIR.

3.2 EFFECTS FOUND NOT TO BE SIGNIFICANT AS PART OF THE EIR PROCESS

Based on the analysis provided herein, the following areas were found to not have significant impacts, with no mitigation measures needed:

- Hydrology and Water Quality
- Land Use and Planning.

Therefore, no mitigation measures are required.

3.3 EFFECTS FOUND TO BE LESS THAN SIGNIFICANT WITH MITIGATION MEASURES INCORPORATED

Based on the analysis provided herein, the following areas were found to have less than significant impacts with the incorporation of mitigation measures:

- Aesthetics
- Biological Resources
- Cultural Resources
- Energy Conservation
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Utilities and Service Systems.

3.4 EFFECTS FOUND TO BE SIGNIFICANT EVEN WITH MITIGATION MEASURES INCORPORATED

Based on the analysis provided herein, the following areas were found to have potentially significant impacts even after feasible mitigation measures were incorporated:

- Air Quality – short-term construction impacts, localized construction impacts, and long-term operational impacts from Phase IIc of the project
- Noise – short-term construction impacts during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project
- Traffic – road segment of14th Street from Magnolia Avenue / Market Street to Mulberry Avenue.

3.5 REFERENCES

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended. AMEC. 2013. Report of Geotechnical Investigation Proposed Bed Tower Expansion. February 28, 2013.

California Public Resources Code, Sections 21000–21177. California Environmental Quality Act, as amended.

City of Riverside. 2007. *City of Riverside General Plan 2025*. Adopted November 2007. Riverside, California: City of Riverside Community Development Department. Amended November 2012.

DOC (California Department of Conservation). 2010. "Unique Farmland and Farmland of Statewide Importance." Farmland Mapping and Monitoring Program.

DOC. 2012. Riverside County Williamson Act Maps FY 2008–2009.

OSHPD (Office of Statewide Health Planning and Development). 2011. "About Us." Accessed June 6, 2013. http://www.oshpd.ca.gov/FDD/About_Us/History/Index.html#plnrvw.

SCAG (Southern California Association of Governments). 2012. "Growth Forecast." Appendix to *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy* Adopted April 2014. Accessed January 17, 2014. http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_GrowthForecast.pdf.

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CHAPTER 4.0
ENVIRONMENTAL IMPACT ANALYSIS

The purpose of this Draft Environmental Impact Report (EIR) is to evaluate the potential environmental effects of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project). The City of Riverside (City) circulated a Notice of Preparation (NOP) beginning on July 31, 2013, with the public review period ending on August 30, 2013. The NOP was transmitted to the State Clearinghouse, responsible agencies, other affected agencies, and sent to property owners immediately adjacent to and across the street from the project site to solicit issues and concerns related to the project. The NOP, initial study, and comment letters are contained in Appendix A of this EIR.

The project is divided into phases: Phases I, IIa, IIb, and IIc. Phase I will be analyzed at a project level in this EIR. At this time, Phase IIa, IIb, and IIc's general locations are known; however, specific project components are not known. Because specific development plans for Phases IIa, IIb, and IIc are not available at this time, analysis for these phases will be addressed at a program level in this EIR.

Sections 4.1–4.12 of the EIR contain the potential environmental impacts analysis associated with implementation of the project and focus on the following issues:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Traffic
- Utilities and Service Systems
- Energy Conservation.

Technical Studies

Technical studies were prepared in order to accurately analyze air quality/greenhouse gas emissions, biological resources, cultural resources, noise impacts, and traffic impacts and were used in the preparation of this EIR. These documents are identified in the discussions for the individual environmental issues and included as technical appendices on a CD attached to the EIR. Hard copies are available at the Planning Division of the Community Development Department of the City of Riverside.

Analysis Format

The EIR assesses how the project would impact these issue areas. Each environmental issue addressed in this EIR is presented in terms of the following subsections:

- **Setting**: Provides information describing the existing setting on or surrounding the project site that may be subject to change as a result of the implementation of the project. This setting described the conditions that existed when the NOP was sent to responsible agencies and the State Clearinghouse.
- **Thresholds of Significance**: Provides criteria for determining the significance of project impacts for each environmental issue.
- **Project Elements That Can Reduce Impacts**: Provides a discussion of the project design elements and features with respect to each environmental issue that could reduce impacts.
- **Environmental Impacts Before Mitigation**: Provides a discussion of the characteristics of the project that may have an effect on the environment, analyzes the nature and extent to which the project is expected to change the existing environment, and indicates whether the project impacts meet or exceed the levels of significance thresholds. As stated previously, this EIR will be analyzing the project on both a project level and on a programmatic level. This section of each EIR section will differentiate between these two levels of analysis.
- **Mitigation Measures**: Identifies mitigation measures to reduce significant adverse impacts to the extent feasible.
- **Environmental Impacts After Mitigation Is Incorporated**: Provides a discussion of significant adverse environmental impacts that cannot be feasibly mitigated or avoided, significant adverse environmental impacts that can be feasibly mitigated or avoided, adverse environmental impacts that are not significant, and beneficial impacts.

4.1 AESTHETICS

The focus of the following discussion and analysis is based on the Initial Study (IS), Notice of Preparation (NOP) public comment period, and Specific Plan (SP) (Appendix A). This section analyzes the potential impacts of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project) to scenic vistas, scenic resources, visual character or quality, and light or glare resulting from implementation of the project.

In addition to other documents, the following references were used in the preparation of this section of the Draft Environmental Impact Report (EIR):

- *City of Riverside General Plan (GP) 2025* (City of Riverside 2007a)
- "Officially Designated State Scenic Highways and Historic Parkways: California Scenic Highway Mapping System: Riverside County" (Caltrans 2011)
- City of Riverside Municipal Code (Title 19) (City of Riverside 2007b)
- *City of Riverside Specific Plan* prepared for the project (Dudek n.d.).

Visual Definitions

The ***visual character*** of a site is defined by its physical characteristics, such as landform, vertical relief, type of vegetation, textures, and patterns; the presence of clear or cascading water; range of color in the soil, rock, vegetation, or water; variety in landscape; man-made structures visually different from the natural environment; and other visually distinguishing elements.

The ***visual quality*** of a site results from the interpretation of physical character features determined by the viewer's perception. Perceptual quality factors include vividness, intactness, unity, visual organization, scarcity, adjacent scenery, and cultural modifications. A high visual quality would include a balanced composition of line, form, color, and texture; striking visual patterns or the presence of distinct focal points; enhancement from the adjacent scenery; and overall compatibility with the character of the landscape setting. A low visual quality usually has a chaotic appearance, elements that appear random with no perceivable patterns, adjacent scenery that detracts or has little influence on the scenic quality, and cultural modifications that detract from the setting.

Views are composed of three distinct parts: the viewing scene itself, the viewing location from which an individual sees the viewing scene, and the view corridor, which is the volume of space between the viewing scene and the viewing location.

The ***viewing distance***, or distance between the site and the location from which it is viewed, includes a foreground, mid-ground, and background.

Viewer sensitivity is usually ranked as high, medium, or low, and is generally determined based on the following criteria: types of use, amount of use, public interest, adjacent land uses, and special areas. Sensitive viewpoints generally include surrounding residences, recreational areas, and designated scenic roads.

4.1.1 Setting

Existing Conditions

Project Site

The RCH campus currently occupies approximately 852,186 square feet of development consisting of several multistory buildings, parking lots and garages, and associated landscaping. Figure 2.0-3, Site Plan, depicts existing structures, existing structures to be demolished, and previously approved structures under construction. For purposes of the preparation of the SP and analysis in the EIR, any approved ongoing development currently under construction or commencing construction within approximately 12 months of the release of the NOP is considered part of the existing development/approvals baseline. Ongoing development currently under construction (described in Chapter 2.0, Project Description) includes the new 385,500-square-foot parking structure (Building O) and the new 61,000-square-foot medical office building (Building P) and contributes to the existing visual setting of the site.

Surrounding Land Uses

Land uses surrounding the project area can be characterized by residential development to the northwest; Riverside Community Players Theatre, Grant Elementary School, and a gas station to the north; muffler services to the northeast; Newman Park and Community Medical Group of Riverside to the east; Riverside Community College to the southeast; Calvary Presbyterian Church, Evans Sports Complex, and residential development to the south; and commercial and industrial development to the west. West of downtown and northwest of RCH is the Santa Ana River, Mount Rubidoux, Fairmont Park, and Lake Evans. In addition, south of downtown and southwest of RCH is the Ryan Bonaminio Park at the Tequesquite Arroyo.

Visual Setting

Surrounding Visual Setting

The project is located in a visual environment that consists of an urbanized area in the Downtown Specific Plan–Health Care District in the City of Riverside (City). The visual character of the area surrounding the RCH campus is developed area with a wide variety of land uses (commercial and residential). Downtown Riverside consists of a variety of artistic, natural, historical, and judicial facilities. The downtown area has an interesting natural setting

for such an urban space. RCH is located in the Health Care District on the southerly edge of Downtown Riverside. The Almond Street District and Justice District are directly to the north. The Almond Street District is primarily residential uses and is characterized by its historic single-family residential buildings. The Justice District is the legal and office epicenter of the surrounding region. The Superior Court Building, Hall of Justice, Family Law Court, California Court of Appeal, and U.S. District Court can all be found within the Justice District.

Visual Setting of the Project Site

The RCH campus is composed of an amalgamation of buildings, parking lots, and parking garages that were constructed throughout the twentieth century, dating back to 1925, to accommodate the City's growing population. On-campus structures include a wide variety of building heights, textures, architectural coatings and materials, and orientations. The tallest and most prominent building is the contemporary six-story patient care tower (Building B), which was built in 1965. There is also the original Spanish-style hospital wing, the contemporary Raincross Medical Group Building, and a variety of low-rise medical office buildings and hospital-related facilities. In addition to the eclectic mix of buildings, the RCH campus has a number of small open spaces and is lined with mature trees throughout the site.

Scenic Resources

Although the majority of the City is urbanized, the hills and ridgelines that surround the City, from which residents can experience long-distance views of natural terrain, provide scenic vistas. Vista points can be found throughout the City, as viewed both from urban areas toward the hills and from wilderness areas toward the City. The most prominent scenic resource near the site is Mount Rubidoux to the north (located less than 1 mile from RCH), which can be viewed from most locations at the project site.

Scenic Highways

The City's GP 2025 has designated several parkways and scenic and special boulevards within the City that meet local criteria for designation as scenic routes. Figure CCM-4, Master Plan of Roadways, in the City's GP 2025 Circulation and Community Mobility Element designates Magnolia Avenue as a 120-foot arterial, Parkway, Scenic, and Special Boulevard (City of Riverside 2007a). The GP 2025 considers each parkway part of a network to establish linkages among Riverside's neighborhoods, major elements of its natural environment and neighborhood parks, and schools. The GP 2025 provides a policy to "seek opportunities to provide enhanced bicycle and pedestrian usage along parkways through the development process" (City of Riverside 2007a, Policy LU-11.3). There are no state scenic highways in the vicinity of the project site (Caltrans 2011).

Scenic Vistas

According to the City's GP 2025 Open Space and Conservation Element (City of Riverside 2007a), the peak of Mount Rubidoux, which is located approximately 0.69 mile north of the project site, provides a scenic viewpoint. Mount Rubidoux has panoramic views of Riverside. The RCH campus is clearly visible from the peak of the mountain; however, in comparison to the tall buildings of Downtown Riverside, the hospital is surrounded by tall, mature trees and almost blends into the scenery. Mount Rubidoux is an isolated granite hill rising from the east bank of the Santa Ana River, on the western outskirts of the City. Mount Rubidoux can be seen from the project site and is most clearly visible to northbound travelers on 14th Street. Mount Rubidoux has a relatively low ridgeline that extends from a height of 559 feet above mean sea level (amsl) at its base to an elevation of 1,339 feet amsl. Distant views of the San Bernardino Mountains north of the project site also provide scenic views from the RCH campus. Due to the much greater elevations of the San Bernardino Mountains, views are vast and the RCH campus is only partially visible from this height and distance.

Light, Glare, and Shading

The project site is located in a built-up area where night lighting is a common feature. Upward-pointing or upward-reflected light from outdoor lighting is a significant source of nighttime light in the project area. Nighttime light that spills outside the intended area and lighted signs can be annoying to neighbors and potentially harmful to motorists, cyclists, and pedestrians. Nighttime lighting can result in both skyglow (the brightening of the night sky) and light trespass (a result of spill light shining in undesirable locations). Existing light sources in the area include streetlights, building lighting, illuminated signs, security lighting, sidewalk lighting, parking lot lighting, lights from motorists, Riverside City College athletic field lighting, recreational park lighting, and various residential structure lights.

Within urban settings, buildings commonly cast shadows on adjacent and nearby properties. Shading can have positive consequences, such as cooling effects during warm weather, and negative consequences, such as the loss of natural light for solar energy purposes or loss of warming influences during cool weather. Shading from structures is a function of the location and dimensions of structures, the orientation of the ground surface to the sun relative to the Earth's axis, and the sun's position in the sky relative to the ground. The sun's position in the sky changes as the seasons progress from summer to winter in both the northern and southern hemisphere. These factors influence the length and position of shadows. During any season, the sun is in its most nearly vertical position relative to the ground surface at approximately noon. This is when shadows are the shortest. On June 21 (the summer solstice), the sun is at its highest in the sky and shadows are at their shortest. As winter approaches, the sun's angle relative to the Earth's horizon changes and shadows

lengthen. On December 21 (the winter solstice), the sun is at its lowest in the sky, and shadows are at their longest. During the spring and fall equinox, the sun rises exactly in the east and is directly above the equator. The project site is not significantly shaded by any structures, nor does it currently shade any of the adjacent properties.

Glare is the result of sharply reflected light caused by sunlight or artificial light reflecting from highly finished surfaces such as window glass or brightly colored surfaces, and the direct view of a bright, unshielded light source. Glare can be uncomfortable (discomfort glare) or disabling (disability glare). Glare decreases visibility; the level of receptors' sensitivity to glare can vary widely. There is no substantial glare currently in the project area.

Related Regulations

State

The California Scenic Highway Program

California's Scenic Highway Program was created by the state legislature in 1963. This program's purpose is to "preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways" (Caltrans 2013). The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The California Scenic Highway System includes a list of highways that either have already been designated as scenic highways or that are eligible for designation as scenic highways. There are no state-designated or eligible scenic highways in the project area.

California Energy Code

The California Energy Code creates standards in an effort to reduce energy consumption. The type of luminaires and the allowable wattage of certain outdoor lighting applications are regulated in the California Energy Code.

Local

City of Riverside General Plan 2025

Circulation and Community Mobility Element

The City's GP 2025, Circulation and Community Mobility Element, designates several parkways and scenic and special boulevards within the City that meet local criteria for designation as scenic routes.

Policy CCM 2.10: Emphasize the landscaping of parkways and boulevards.

Land Use and Urban Design Element

The Land Use and Urban Design Element of the City's GP 2025 contains the following policies pertaining to the City's parkways, specifically Magnolia Avenue, that are relevant to the project.

Policy LU 11.1: Recognize parkways as distinctive elements of the City's circulation network.

Policy LU 11.3: Seek opportunities to provide enhanced bicycle and pedestrian usage along parkways through the development process (City of Riverside 2007a).

Open Space and Conservation Element

The Open Space and Conservation Element of the City's GP 2025 contains goals, recommendations, objectives, guidelines, and standards for the management of visual resources.

Riverside Zoning Code

Title 19 of the City of Riverside Municipal Code contains the zoning code for the City, and includes regulations for site planning and development, including lighting. The following are the relevant lighting design and development standards:

a. Lighting for safety purposes shall be provided at entryways, along walkways, between buildings and within parking areas.
b. Lighting support structures shall not exceed the maximum permitted building height.
c. All on-site lighting shall provide an intensity of one foot-candle at ground level throughout the areas serving the public and used for parking.
d. Flickering or flashing lights shall not be permitted.
e. Light sources shall not be located in required buffer areas, except those required to illuminate pedestrian walkways.
f. All lights shall be directed, oriented and shielded to prevent light from shining onto adjacent properties, onto public rights-of-way and into driveway areas in a manner that would obstruct drivers' vision.
g. Light poles shall not exceed 20 feet in height, including the height of any concrete or other base material.
h. The City may require submittal of an exterior lighting plan as part of any development application or as a condition of approval of a project (City of Riverside 2007b, Chapter 19.556, Lighting).

Downtown Specific Plan–Health Care District

The intent of the Downtown Specific Plan–Health Care District is to create a major medical center to serve the City by providing for the existing RCH and medical-related uses in this area of Downtown Riverside. A City-designated landmark church is also located in this district and is allowed as a permitted use. Development in this district is intended to provide for expansion of medical and medical support uses in a manner that is compatible with the existing development, especially in terms of scale and building mass. The goals and policies in the Downtown Specific Plan set forth the framework for realizing the Specific Plan vision. In turn, the land use districts, development and design standards, and implementation strategies for downtown establish the framework for evaluating development proposals, public improvements, and the implementation of action plans. Following is the currently applicable goal and policy:

Goal LU-1: To provide land use opportunities for Downtown to serve as the region's cultural, governmental, arts, and entertainment center with unique and interrelated districts offering a wide range of opportunities for residential lifestyles, work environments, shopping, entertainment, learning, culture, and the arts.

> **Policy LU 1.1**: Maintain the integrity of, and interrelationship between, each Downtown district:
>
> > **Health Care District**: An area primarily composed of medical related uses, with designs having a contemporary, institutional appearance (City of Riverside 2002).

Adoption of the RCH SP will replace the Downtown Specific Plan–Health Care District designation and this goal and policy will no longer apply. Nonetheless, the RCH SP has been prepared to be consistent with the Downtown Specific Plan–Health Care District, as well as the City's GP 2025.

Citywide Design Guidelines and Sign Guidelines

The *Citywide Design Guidelines and Sign Guidelines* (Design Guidelines) limit impacts to aesthetic resources by reducing interruptions of scenic vistas, maintaining and enhancing scenic resources and visual character, and reducing light and glare.

> "These Guidelines are intended to promote quality, well-designed development throughout Riverside that enhances existing neighborhoods, creates identity, and improves the overall quality of life within the City. The guidelines are intended to promote a desired level of future development in Riverside that:
>
> - Promote a positive physical image and identify all types of development;

- Provide guidance to the development community, architects/designers and property owners;
- Promote a high quality of development that stimulates investment in and strengthening of the economic vitality of all areas of Riverside;
- Promote design in context with existing development in the surrounding neighborhood as opposed to requiring thematic architecture;
- Contributes to implementing the concepts and recommendations provided in the 2002 *Visioning Riverside program*;
- Implements the objectives, policies and tools of the General Plan;
- Supplement the contents of the Riverside Zoning Code on matters of design and aesthetics;
- Maintain and protect the value of property; and
- Maintain a high quality of life and pride of ownership without causing unnecessary public or private costs or unduly restricts private enterprise, initiative, or innovation in design" (City of Riverside 2007e).

The Design Guidelines provide pictorial guidance on building treatments, façade articulation, site planning, sign guidelines, and other matters in an effort to improve the overall visual quality of new development City-wide. The Design Guidelines prevent large, windowless, blank walls through building articulation, vegetation screening, and appropriate landscape areas along walls. The Design Guidelines also provide requirements for façade and signage treatments to prevent the use of highly reflective surfaces; large, blank, unarticulated wall surfaces; exposed, untreated precision block walls; chain-link fencing; barbed wire; and materials requiring high maintenance such as stained wood, shingles, or metal siding. The Design Guidelines also encourage the use of neutral paint colors, subtle lighting, and courtyard entrances where feasible.

4.1.2 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS and Appendix G, the project could have a significant impact on aesthetics if the project would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.3 Project Elements That Can Reduce Impacts

The project has been designed, and will continue to be designed in the future, to be architecturally compatible with surrounding development and the aesthetic character of the area and the City. Chapter 7.0 of the SP includes development standards and guidelines that will apply to current and future development within the RCH SP zoning district to ensure visual compatibility. Development standards include height restrictions, setbacks, and floor area ratio in order to establish the relationship between building mass and scale (see Table 7-1, General Development Standards, and Table 7-2, Exceptions to General Development Standards, in Chapter 7.0 of the RCH SP). Development standards have been prepared in accordance with Government Code Section 65456 et seq. and the City of Riverside Municipal Code, Title 19, Zoning Code (City of Riverside 2007b).

Chapter 8.0 of the RCH SP also includes design guidelines that are intended to establish the overall vision of the RCH campus, encourage the highest level of design quality, and assure compatibility between adjacent uses. The design guidelines establish architectural and landscape design guidelines to be used by developers, builders, engineers, architects, and landscape architects in their preparation of plans for the development and implementation of the RCH SP. The guidelines include architectural style, building orientation, height, mass, and scale, building materials, window treatments, signage standards, and landscape guidelines. The guidelines recommend that unique architectural elements, where provided, be positioned to be included in key views of newly constructed buildings and structures, including parking structures, signage, and outdoor furniture and seating areas. The guidelines also recommend that changes in height, horizontal plane, materials, patterns, and colors be used to reduce building scale and mass. The massing and scale of buildings should respect the visual and physical relationship of adjacent buildings (Dudek n.d.). Acceptable building materials may include natural and cast stone, metal, stucco (or exterior insulation finishing system), glass, decorative masonry, concrete, and/or other contemporary composites. Furthermore, the SP outlines specific landscape guidelines that involve the use of drought-resistant and/or drought-tolerant plants that have an attractive appearance and are arranged in a three-tiered system consisting of trees, shrubs, and groundcover (Dudek n.d.). Compliance with the RCH SP will reduce potential impacts as well as complementing, enhancing, and integrating development into the surrounding environment.

4.1.4 Environmental Impacts Before Mitigation

Threshold: Would the project have a substantial adverse effect on a scenic vista?

Project- and Program-Level Elements

According to the City's GP 2025, Open Space and Conservation Element, the peak of Mount Rubidoux, which is located approximately 0.69 mile northwest of the RCH campus, provides a prominent scenic viewpoint for the City. Distant views of the San Bernardino Mountains, north and northeast of the RCH campus, also provide scenic views from the site. The RCH campus is located within an established urban area of Downtown Riverside where the presence of existing development and landscaping limits the availability of long, broad views to Mount Rubidoux and the San Bernardino Mountains. However, along 14th Street, views of Mount Rubidoux are available to passing northbound travelers, and with the exception of tall, overhead wood and steel transmission structures and associated lines, views of Mount Rubidoux are largely unobstructed.

Construction, demolition, and retrofitting during Phases I, IIa, IIb, and IIc would introduce the use of heavy machinery such as large trucks, cranes, bulldozers, and other equipment needed for construction activities. The presence of this equipment, especially tall cranes that would exceed the heights of the buildings being constructed, could temporarily impair views of Mount Rubidoux and the San Bernardino Mountains from the RCH campus. Large construction equipment would be visible from surrounding areas looking toward the RCH campus. Construction activities would also require the presence of construction workers and vehicles on the RCH campus; however, activities would not be permanent. While construction activities would occupy large portions of the RCH campus, prominent peaks in the surrounding area would remain visible and would not be screened or blocked. Construction activities would not have substantial adverse impacts on scenic vistas and impacts are considered **less than significant**.

Project Level (Phase I)

The project includes the construction of several new buildings and facilities on the project site (see Figure 2.0-3, Site Plan). The construction and operation of these new buildings has the potential to impact views of scenic vistas from the project site, such as Mount Rubidoux and the San Bernardino Mountains.

Figure 4.1-1 depicts an architectural rendering of what the proposed Phase I hospital bed tower is expected to look like. This tower is located in the center of the site and has the potential to block views from other vantage points on the project site to Mount Rubidoux or to the more distant San Bernardino Mountains. However, as seen from Figures 4.1-2 through 4.1-4, the Phase I tower will be compatible in height with the existing structures on site and will not significantly alter views of the surrounding scenic vistas. Figure 4.1-2 illustrates the view of the project site from City Hall after the completion of Phase I. The views of Mount Rubidoux in the background remain unobstructed and the height of the building is consistent with existing building heights. Figure 4.1-3 illustrates the view from Magnolia Avenue and 14th Street. The view from this angle demonstrates the 120-foot setback (per the SP) of the 190-foot bed tower from the Riverside Community Players Theatre. This setback places the tallest portion of the Phase I hospital bed tower far enough from 14th Street that its visual presence does not block the view of Mount Rubidoux from this perspective. The view from Brockton Avenue and the Raincross Medical Office Building is illustrated in Figure 4.1-4. The Phase I hospital bed tower blends in nicely with the existing landscape and the aesthetic of the surrounding environment.

Furthermore, the existing landscaping (i.e., mature trees) along 14th Street and Magnolia Avenue and within the site breaks the undulating horizon line. Additionally, once the Phase I bed tower is complete, the views through the site to Mount Rubidoux may be interrupted; however, views of Mount Rubidoux and the San Bernardino Mountains will be available from inside the Phase I bed tower itself, providing more views for RCH patients, visitors, and employees.

Additionally, Chapter 7.0 of the SP defines height and setback restrictions that will apply to future development to reduce aesthetic impacts from Phase I related to surrounding properties such as the Riverside Community Players Theatre. The RCH SP (Chapter 7.0) requires that development adjacent to the Riverside Community Players Theatre maintain a minimum setback of 30 feet from the theatre as well as maintaining a maximum height of 45 feet to a depth of 90 feet from the theater. Compliance with such setback standards would ensure that views of Mount Rubidoux and the San Bernardino Mountains from the theatre would not be impaired. Therefore, as shown on Figures 4.1-2 through 4.1-4, the slight interruption of views as a result of the Phase I hospital bed tower from vantage points on the site and from surrounding properties would not be significant and would not have a substantial adverse effect on the overall scenic vista of Mount Rubidoux or the San Bernardino Mountains. Impacts from Phase I are considered **less than significant** and no mitigation is required.

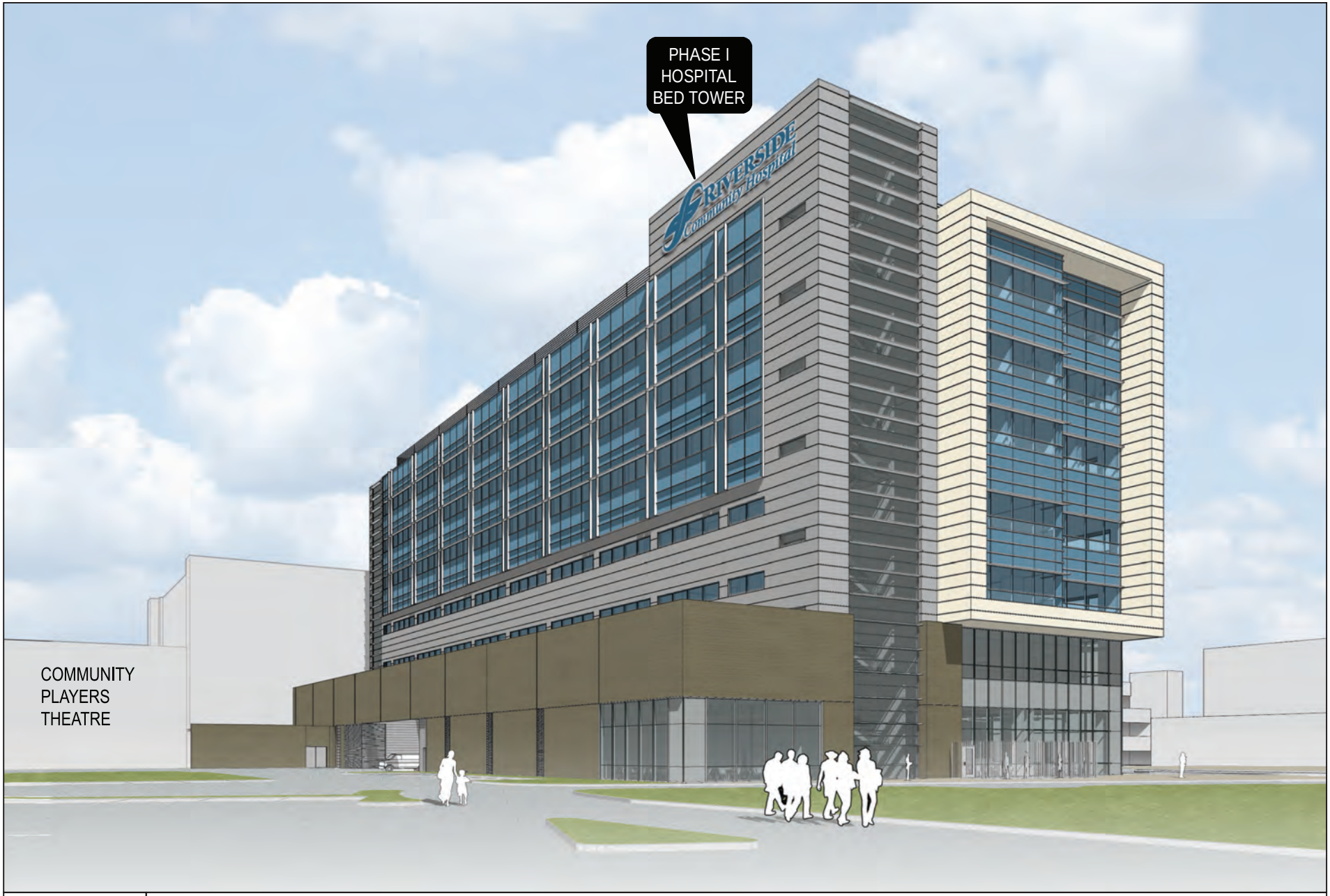
Program Level (Phases IIa, IIb, and IIc)

For Phases IIa and IIb, no architectural renderings have been completed since these phases are so far in the future and detailed information about the buildings is not yet available. However, the massing and scale of the buildings proposed under these later phases is known and can be

seen in Figures 4.1-2 and 4.1-4. Under Phase IIa, there will be construction of a new building on the prominent corner of Magnolia Avenue and 14th Street. Phase IIa consists of the demolition of Building A and the construction of an approximately 100,000-square-foot, mixed-use building on the Building A site. Phase IIa would be set back 40 feet from Magnolia Avenue and 15 to 40 feet from 14th Street (see RCH SP, Chapter 7.0, Table 7-1). The approximate height and setback of Phase IIa is illustrated in Figure 4.1-3. Figure 4.1-3 provides the potential view of Phase IIa from the corner of Magnolia Avenue and 14th Street. The massing and scale of Phase IIa will be consistent with existing and future development on the RCH campus.

Phase IIb includes construction of another new hospital bed tower closer to the Calvary Presbyterian Church. Implementation of Mitigation Measure **MM AES-1**, as described in Section 4.1.7, and the development standards in Chapter 7.0 of the RCH SP would address potential aesthetic impacts. Additionally, once Phases IIa and IIb are constructed, the new buildings may provide better views of Mount Rubidoux and the San Bernardino Mountains for people within the buildings, as compared to the views available under existing conditions at street level or in existing buildings. As seen in Figure 4.1-2, the height of Phase IIa and IIb buildings would be consistent with existing development and the Phase I hospital bed tower and would not obstruct the scenic views of Mount Rubidoux and the San Bernardino Mountains significantly. Figure 4.1-5 illustrates the potential view of Phase IIb from the RCH entrance on Magnolia Avenue. The massing and scale of Phase IIb would be similar to existing development and the Phase I hospital bed tower; however, views of Mount Rubidoux from this location as well as on the RCH campus would be slightly impaired as a result of Phase IIb.

Construction of Phase IIc is not expected to begin until approximately 2030. The exact locations of the buildings or facilities planned under Phase IIc have not yet been decided and will depend on the market, hospital finances, and other factors. Therefore, no specific site plans or architectural drawings have been prepared, nor have massing or scale drawings been prepared. Given that Phase IIc is not expected to be started or planned for until the late 2020s, the exact aesthetic impacts related to views of Mount Rubidoux or the San Bernardino Mountains cannot be fully determined. Therefore, any plans for Phase IIc facilities to undergo staff review with the City in accordance with the SP to ensure that the massing, siting, and design of projects address potential aesthetic impacts related to scenic vistas from the site and surrounding properties. Therefore, Phase IIa and Phase IIb will not significantly impede scenic vistas from the site or for surrounding properties, as shown on Figures 4.1-2 through 4.1-5, with the incorporation of **MM AES-1** and development standards outlined in the RCH SP, Chapter 7.0, and the programmatic procedures that will be followed for these phases. Therefore, impacts to scenic vistas would be considered **less than significant with mitigation incorporated**.



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SOURCE: PERKINS AND WILL 2013

FIGURE 4.1-1

Architectural Rendering for Phase I Hospital Bed Tower

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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SOURCE: PERKINS AND WILL 2013

FIGURE 4.1-2
View of RCH Campus from City Hall

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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SOURCE: PERKINS AND WILL 2013

FIGURE 4.1-3

View from corner of Magnolia Avenue and 14th Street

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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SOURCE: PERKINS AND WILL 2013

FIGURE 4.1-4

View from Brockton Avenue and Raincross Medical Group Building

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SOURCE: PERKINS AND WILL 2013

FIGURE 4.1-5

View from RCH Entrance on Magnolia Avenue

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Threshold: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Project- and Program-Level Elements

The City's GP 2025 has designated several scenic and special boulevards within the City that meet local criteria for designation as scenic routes. Figure CCM-4, Master Plan of Roadways, in the GP 2025, Circulation and Community Mobility Element, designates Magnolia Avenue as a 120-foot arterial, Parkway, Scenic, and Special Boulevard. Chapter 7.0 of the RCH SP indicates that setbacks along Magnolia Avenue must be a minimum of 40 feet. Phase I would not construct or demolish any buildings along Magnolia Avenue. Views of the Phase I hospital bed tower may be slightly visible through the RCH campus from Magnolia Avenue; however, views would be limited and no damage to scenic resources would occur. Phases IIa and IIb will be visible from Magnolia Avenue. Although no architectural renderings have been prepared for these phases, nor have materials or specific design elements been chosen, these buildings will be required to adhere to the development standards and design guidelines outlined in the RCH SP (Chapters 7.0 and 8.0). The exact locations of development under Phase IIc have not yet been decided and will depend on the market, hospital finances, and other factors. Therefore, no specific site plans or architectural drawings have been prepared, nor have massing or scale drawings been prepared. However, when plans for Phase IIc are prepared, they will be prepared in compliance with the development standards and design guidelines outlined in the RCH SP (Chapters 7.0 and 8.0). Compliance with Chapters 7.0 and 8.0 in the SP will ensure that height, scale, and design elements of Phase IIc will be aesthetically pleasing and complementary to existing development. Development standards and design guidelines in the RCH SP will also ensure that views from Magnolia Avenue toward the campus will not be substantially damaged. Although Magnolia Avenue is designated by the city as a Parkway, Scenic, and Special Boulevard, there are no state scenic highways near the project site as identified by the California Scenic Highway Program (Caltrans 2011). Therefore, impacts would be **less than significant** and no mitigation measures are necessary.

Threshold: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project consists of a phased redevelopment of the existing hospital campus. Phase I of the project consists of construction of a hospital bed tower, demolition of the existing Building N medical office building 1, and full seismic upgrades to Buildings B and D. Phases IIa, IIb, and IIc of the project consist of demolition of Building A and construction of an approximately 100,000-square-foot mixed-use building on the Building A site, a hospital bed tower, medical office buildings, and other potential hospital structures and hospital-related facilities. Chapter 7.0 of the RCH SP includes development standards such as building heights, setbacks, and

floor area ratio that would ensure that all new development would be visually compatible with adjacent uses (see Table 7-1, General Development Standards, and Table 7-2, Exceptions to General Development Standards, in Chapter 7.0 of the RCH SP).

Project Level (Phase I)

Construction, demolition, and retrofitting during Phase I would introduce the use of heavy machinery such as large trucks, cranes, bulldozers, and other equipment needed for construction activities. The presence of this equipment and the grading and construction activities associated with the project would alter the visual character and quality of the site and would be visible from surrounding areas. Construction activities would require the presence of construction workers, equipment, and vehicles on the RCH campus; however, activities would not be permanent. Since construction activities would be temporary, the surrounding areas are developed and urban in nature, and the visual character of the site would not be permanently affected, no substantial degradation of views will occur due to the project and impacts are considered **less than significant** for construction of Phase I.

Due to the developed and urban nature of the surrounding area and the limited amount of undisturbed topography in the vicinity of the RCH campus, the development would not strongly contrast with the surrounding development or the natural topography of the area. With the proposed hospital bed tower, Phase I would add height and bulk to the views of the site from certain vantage points; however, with landscaping and cohesive architecture, the view would be consistent with the current and planned development of the site in both scale and aesthetic. Therefore, Phase I development would not substantially degrade the existing visual character or quality of the site or its surroundings. As outlined in Chapter 8.0, Design Guidelines, of the RCH SP, the mass and scale of new buildings should be compatible with the existing, adjacent structures. This can be accomplished by transitioning from the height of adjacent buildings to the tallest elements of the new building, stepping back the upper portions of taller buildings, and incorporating human-scale elements, such as pedestrian-scale doors, windows, and building materials, on the ground floor. Phase I landscaping of the site would create a uniformity and cohesion with surrounding land uses. The character of the landscape is designed to complement, enhance, and integrate the site into one cohesive campus environment. Proposed plants and trees in every sector of the campus correspond to naturally occurring conditions in the region and can be found in Chapter 8.0 of the RCH SP. Drought-resistant and/or drought-tolerant plants that have an attractive appearance include heavenly bamboo (*Nandina domestica*), Oregon grape (*Mahonia aquifolium*), lily of the Nile (*Agapanthus* sp.), and Indian hawthorn (*Rhaphiolepis indica*). Examples of acceptable trees include western sycamore (*Platanus racemosa*), coast live oak (*Quercus agrifolia*), ginkgo (*Ginkgo biloba*), and lemon-scented eucalyptus (*Corymbia citriodora*). Additionally, Phase I only includes emergency signage required for efficient hospital operations. Chapters 7.0 and

8.0 of the RCH SP include signage standards that would apply to the entire campus. For example, Chapter 8.0 states that signage should be an accent to the building's architecture and may include metal, stone, or other materials used in the building architecture. With tiered landscaping and uniform architectural design throughout the project site, as outlined in Chapters 7.0 and 8.0 of the RCH SP, visual impacts to surrounding developments and the natural topography would be **less than significant** and no mitigation is necessary.

However, there are a few buildings within and surrounding the RCH campus that are considered historic and can be seen from the campus's perimeter streets, including Magnolia Avenue. On-site historical resources include Building B and the J. Harrison Wright Palm Grove. Seismic upgrades to Building B are anticipated to occur during Phase I. The full seismic upgrade proposed for Building B in order to bring it into compliance with current seismic standards per Senate Bill 1953 could alter the building in a way that could impact character-defining features. In order to avoid potential direct adverse impacts to Building B, character-defining features will be preserved if feasible; if replacement of these features is necessary, replacements will maintain the appearance of the original materials. Seismic retrofitting techniques that require the construction of new or alteration of existing elements on or within Building B will be done in compliance with the development standards and design guidelines set forth in Chapters 7.0 and 8.0 of the RCH SP. In addition to the RCH SP, **MM AES-2** would be implemented to ensure that seismic upgrades do not significantly alter character-defining features; therefore, impacts as a result of Phase I are considered to be **less than significant.**

Off-site structural historical resources include the Riverside Community Players Theatre, Calvary Presbyterian Church, Grant Elementary School, and Newman Park. The proposed seven-story Phase I hospital bed tower would be the closest project component to the Riverside Community Players Theatre. The height difference between the one- and two-story Riverside Community Players Theatre and the proposed seven-story Phase I hospital bed tower could potentially impact the historical value of the theatre. The sensitivity of this historical resource was taken into consideration during the preparation of the RCH SP and exceptions to the general development standards have been applied to the design of the Phase I hospital bed tower. Setbacks defined in Chapter 7.0, Development Standards, of the RCH SP have been developed for the Phase I hospital bed tower that would place the actual 190-foot tower farther away from the Riverside Community Players Theatre and the lower elements/levels closer (see Table 7-1, General Development Standards, and Table 7-2, Exceptions to General Development Standards, in Chapter 7.0 of the RCH SP). Development adjacent to the Community Players Theatre will be required to comply with these development standards. Adherence to the design features and development standards in the SP would ensure that visual impacts to the Riverside Community Players Theatre as a result

of construction and operation of the Phase I hospital bed tower would be **less than significant with mitigation incorporated**.

The RCH SP has taken into consideration the proximity of the on- and off-site historical buildings and cultural resources and developed sensitive development standards that would reduce, minimize, or avoid potential aesthetic impacts as a result of future development. Conservative setbacks and height restrictions would prevent future development from damaging these landmarks. Additionally, the project would require building design themes that complement existing buildings on and off site and would include landscaping that would balance and unify the look and cohesiveness of the entire campus. The design guidelines address building elements such as architectural style, orientation, roofing, access and parking, color and materials, security and lighting, and signage. In order to ensure architectural consistency and balanced landscaping, building design plans and conceptual landscaping plans will undergo Administrative Design Review prior to approval. Therefore, impacts to views of the site from the surrounding areas would occur, but with cohesive architecture and landscaping and by following the development standards outlined in Chapter 7.0 of the SP, impacts related to the visual character of the site from Phase I would be **less than significant** and no mitigation measures are necessary.

Program Level (Phases IIa, IIb, and IIc)

Construction, demolition, and retrofitting during Phases IIa, IIb, and IIc would introduce the use of heavy machinery such as large trucks, cranes, bulldozers, and other equipment needed for construction activities. The presence of this equipment and the grading and construction activities associated with the project would alter the visual character and quality of the site and would be visible from surrounding areas. Construction activities would require the presence of construction workers, equipment, and vehicles on the RCH campus; however, activities would not be permanent. Since construction activities would be temporary and the visual character of the site would not be permanently affected, and no substantial degradation of views will be impacted by the project, impacts would be **less than significant** for construction of Phases IIa, IIb, and IIc.

Due to the developed and urban nature of the surrounding area and the limited amount of undisturbed topography in the vicinity of the RCH campus, the development would not strongly contrast with the surrounding development or the natural topography of the area. The project would impact views of the site with increases in height and bulk at buildout of the project that would be visible from certain vantage points (Figure 4.1-2). However, Phases IIa, IIb, and IIc would be developed with a cohesive architecture and landscape plan to ensure that development would not degrade the existing visual character or quality of the site or its surroundings. As stated in Chapter 8.0, Design Guidelines, of the RCH SP, the massing and scale of new buildings

will respect the visual and physical relationship of adjacent buildings. Distinct architectural elements will be included that divide and articulate all newly constructed building façades, to soften the scale and mass of buildings. Although not all designs for Phases IIa, IIb, and IIc have been developed, they will be done in accordance with the RCH SP, which includes landscape guidelines (Chapter 8.0). Prior to the approval of Phase IIa, IIb, and IIc buildings, a Conceptual Landscape Plan will be required as a part of Administrative Design Review. With uniform architectural design and an approved Conceptual Landscape Plan that applies throughout the project site, as outlined in Chapters 7.0 and 8.0 of the RCH SP, visual impacts to surrounding development and the natural topography would be **less than significant.**

Travelers along perimeter streets would briefly experience views of a more intensely developed hospital campus with implementation of Phases IIa, IIb, and IIc. All Phase II structures would be designed and built to be consistent with existing development on the site and in the surrounding area. The architectural style would complement existing on-site building styles with stucco, cast stone, concrete, and/or other contemporary composites. After construction is complete, each new development site would be landscaped to integrate it with the existing surrounding campus environment. The landscape design is intended to complement, enhance, and integrate the site into one cohesive campus environment. The planting palette includes trees, shrubs, vines, and groundcover species that are drought-tolerant and/or native. The landscape design also intends to create an enhanced pedestrian circulation pattern by creating interest for patients, employees, and visitors of RCH.

Phase IIa is planned to include development on the corner of 14th Street and Magnolia Avenue (where Building A currently stands), which could be adjacent to the J. Harrison Wright Palm Grove. In order to avoid damaging the historical palm grove, the RCH SP has developed specific development standards that would apply to Phase IIa. These development standards would ensure the preservation of the J. Harrison Wright Palm Grove as well as establishing a visual balance and symmetry between Phase IIa and the height of the palm trees. Implementation of **MM AES-3** would ensure that potential aesthetic impacts to the palm grove would be reduced or avoided. Compliance with the development standards and design guidelines set forth in Chapters 7.0 and 8.0 of the RCH SP, as well as implementation of **MM AES-3,** would ensure that impacts as a result of Phase IIa would be **less than significant with mitigation incorporated.**

With the proposed hospital bed tower, Phase IIa and Phase IIb structures would add height and bulk to the views of the site from certain vantage points; however, with landscaping, cohesive architecture, and implementation of the RCH SP, the view would be consistent with the current and planned development of the site in both scale and aesthetic and would therefore not degrade the existing visual character or quality of the site or its surroundings.

Future development that would occur during Phases IIb and IIc would be the project components closest to the Calvary Presbyterian Church. The design of future buildings near the church will take into consideration the scale and materials used (Figure 4.1-5). Perimeter site improvements and landscaping will be sensitive to the church and complement the view from the church toward the buildings. Implementation of general development standards outlined in the SP would ensure that visual compatibility and appropriate design techniques are achieved during the design and construction phases of Phase IIb and Phase IIc. Therefore, impacts as a result of Phases IIb and IIc are considered **less than significant.**

Due to the increase in bulk and scale of the buildings, impacts to views of the site would occur. However, the project's architecture would provide visual interest with a modern, sophisticated design that would not starkly contrast with adjacent development. Adoption and implementation of the RCH SP would ensure that future development in Phases IIa, IIb, and IIc on the hospital campus would be in compliance with the applicable height and bulk restrictions. Additionally, the project includes specific design guidelines to further ensure the aesthetic quality of the development. The design guidelines for all phases of the project address building elements such as architectural style, orientation, roofing, access and parking, color and materials, security and lighting, and signage, which are all designed to provide a cohesive, visually compatible experience. Therefore, the buildout of the project would not significantly degrade the visual character of the project area and impacts are considered **less than significant** with no mitigation necessary.

Threshold: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Light – Project and Program Level

The RCH campus is already an illuminated area. Currently there are sources of nighttime light from the existing hospital operation. New sources of light may be present during project construction and operation. The existing hospital campus currently includes lighting around buildings, along walkways, and in parking areas for safety and security reasons. All lighting is in compliance with applicable laws and regulations. The project would include exterior lighting for safety and security purposes that would be shielded and would also be in compliance with existing regulations. Per the SP, Chapter 8.0, all lights would be directed, oriented, and shielded to prevent light from shining onto adjacent properties, onto public rights-of-way, and into driveway areas in a manner that would obstruct drivers' vision, in accordance with Chapter 19.556 of the City's Municipal Code (City of Riverside 2007b).

Lighting for Phase I will be designed in accordance with the Phase I Lighting Plan prepared for the project, which can be found in Chapter 8.0 of the RCH SP. Future expansion (Phases IIa, IIb, and IIc) will develop a similar, consistent lighting plan prior to construction. Although the

lighting proposed by the project would change the lighting on the site compared to current conditions, the project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. Given these factors, the contribution of light emitted from Phases I, IIa, IIb, and IIc development would be **less than significant** and no mitigation measures are necessary.

Glare – Project and Program Level

Most of the existing daytime glare in the project area is generated by vehicles passing along the surrounding streets. The level of glare in the project area is moderate, as most buildings in the vicinity do not have reflective surfaces. Phases I, IIa, IIb, and IIc would increase the number of structures on the RCH campus and it is possible that the number of glare-inducing reflective surfaces (i.e., windows) could increase above the existing conditions. Implementation of **MM AES-4** would ensure that the reflection of natural or artificial light off the structural façade would not represent a safety impact to motorists on surrounding roadways. Other exterior portions of future development will incorporate a variety of non-reflective material that would minimize the transmission of glare from building materials such as concrete and stucco. In addition, implementation of **MM AES-5** would minimize the potential glare generated by the project from windows and glass panels. Therefore, the project would not create new substantial sources of glare that would adversely affect day or nighttime views in the area; impacts would be **less than significant with mitigation incorporated**.

4.1.5 Mitigation Measures

CEQA Guidelines, Section 15126.4, requires EIRs to describe feasible measures that can mitigate significant adverse impacts. The following mitigation measures have been evaluated for feasibility and are incorporated to reduce potentially significant impacts.

MM AES-1 In order to avoid potential indirect impacts to Calvary Presbyterian Church during Phases IIb and IIc, the following design guidelines in regard to the design of the Phase IIb and Phase IIc hospital bed tower shall be observed:

1. Ensure that the building is contemporary in design, but sensitive to the adjacent church in the placement of height, massing, landscaping, and in the use of materials.
2. Design the building to step up in height, beginning with lower elements at the south and east elevations and progressing to higher elements toward the north and west.
3. Refrain from the extensive use of highly reflective building materials in lower parts of the building.

4. Use shading devices similar in concept to those used on Building B so as to soften the view to windows and provide a sense of depth to the building.
5. Design the landscaping around the south and east sides of the building to create a landscape filter at both the lower and higher elevations. The type of tree used in the parking lot for Building B is a good example of the type of landscaping that would effectively soften the view to the Phase IIb and Phase IIc hospital bed tower.

MM AES-2 In order to avoid potential direct impacts to Building B during seismic retrofitting in Phase I, the following measures shall be implemented:

1. Maintain the architectural integrity of Building B by preserving its character-defining features. If replacement of character-defining features becomes necessary, the replacements shall maintain the appearance of the original materials.
2. Locate seismic reinforcement within the interior of the building. To the extent that seismic reinforcement needs to be accomplished on the exterior of the building, it will be designed to blend as much as possible with the existing building. For example, any seismic wrap necessary on the building should protrude from the building face as little as possible and should be similar in color and texture to the existing building.
3. Maintain the lacy look provided by the lemon-scented eucalyptus trees south of Building B through preservation or relocation of existing trees or through the replacement of existing trees with specimen trees of the same variety.
4. Preserve all rock walls and seating areas associated with Building B's landscape. If new improvements necessitate the removal of some rock walls, replacement walls with the same appearance as the original walls shall be constructed.

MM AES-3 During Phase IIa, in order to avoid potential direct and indirect impacts to the J. Harrison Wright Palm Grove associated with the Building A site and the Newman Park Palm Grove, as well as protecting other mature trees near the palm trees and the mounded turf area, the following measures shall be implemented:

1. Establish a landscape setback that preserves the trees in the J. Harrison Wright Palm Grove with the frontage of the landscape setback to extend from the east frontage of the health education center Building H to the parking lot at the southwest corner of Magnolia Avenue and 14th Street. If necessary for the

efficiency of the design of the building that replaces Building A, a small number of palms may be relocated within the defined setback area.

2. Ensure that the building that replaces Building A is of contemporary design, but sensitive in design, color, and materials. If the building has a direct frontage on the palm grove landscape setback, design the building to step down to one story at the edge of the palm grove, with a design that provides a compatible backdrop for the historical landscape.
3. Design the site plan for the building that replaces Building A so it has a building edge or building-like edge adjacent to the palm grove. A building-like edge could consist of an arcade-type structure similar in concept to that used along the Market Street frontage of the shopping center on the west side of Market Street, between 3rd and 4th Streets. If such an arcade-like feature is used, it will be of an architectural style in keeping with the building behind it.
4. Design and install a plaque and interpretive feature with prominent public access in the palm grove that tells the history of J. Harrison Wright and his association with the landscaping of the hospital and Newman Park.

MM AES-4 Window glazing on buildings constructed during Phases I, IIa, IIb, and IIc shall be predominantly (at least 60%) lightly tinted in a natural glass color that has a low reflectance percentage, which will reduce the reflection of natural or artificial light off structural façades.

MM AES-5 Development during Phases I, IIa, IIb, and IIc shall incorporate exterior landscaping, as needed, and will be determined during preparation of design plans, that minimizes glare generated from windows and glass panels, especially when development occurs adjacent to sensitive land uses.

4.1.6 Environmental Impacts After Mitigation Is Incorporated

All impacts related to impacts to scenic vistas, resources associated with a state scenic highway, and light and glare are either at less than significant levels through compliance with the SP or can be reduced to less than significant levels with the proposed mitigation measures and compliance with all City Zoning Code and Design Guidelines.

4.1.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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Dudek. n.d. *Riverside Community Hospital Specific Plan*.

4.2 Air Quality

The focus of the following discussion and analysis, based on the Initial Study (IS) (Appendix A) and Notice of Preparation public comment period, focuses on the potentially adverse impacts to air quality during construction and operation of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project).

In addition to other documents, the following sources were used in the preparation of this section of the Draft Environmental Impact Report (EIR):

- Dudek, 2014, *Air Quality Technical Report and Greenhouse Gas Analysis for the Riverside Community Hospital Specific Plan Expansion Project*, January 2014 (Appendix B).

4.2.1 Setting

Existing Conditions

Climate and Topography

The project site is located within the South Coast Air Basin (SCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Air quality in the project area is affected not only by various emission sources (e.g., mobile, industry), but also by atmospheric conditions, such as wind speed, wind direction, temperature, and rainfall. The SCAB's combination of topography, low mean mixing height, abundant sunshine, and emissions from one of the largest urban areas in the United States has historically resulted in some of the worst air pollution in the nation.

Although the SCAB has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, there is a limited capacity to disperse air contaminants horizontally. The dominant daily wind pattern is an onshore daytime breeze of 8–12 miles per hour (mph) and an offshore nighttime breeze of 3–5 mph. The typical wind flow pattern fluctuates only with occasional winter storms or strong northeasterly Santa Ana winds from the mountains and deserts northeast of the SCAB. Summer wind flow patterns represent worst-case conditions because this is the period of higher temperatures and more sunlight, which results in more ozone (O_3) formation.

The City of Riverside's (the City's) climate is characterized by relatively low rainfall, with warm summers and mild winters. Average temperatures range from a high of 95 degrees Fahrenheit (°F) in August to a low of 40°F in December. Annual precipitation averages about 0.5 to 2.5 inches, falling mostly from December through March (City-Data.com 2012).

During spring and early summer, pollution produced during any one day is typically blown out of the SCAB through mountain passes or lifted by warm, vertical currents adjacent to mountain slopes. The vertical dispersion of air pollutants in the SCAB is limited by temperature inversions in the atmosphere close to the Earth's surface. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are carbon monoxide (CO), particulate matter ($PM_{2.5}$ and PM_{10}), and nitrogen dioxide (NO_2) because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen (NO_x) to form photochemical smog.

Sensitive Receptors

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed "sensitive receptors" are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by the California Air Resources Board (CARB), may include children, the elderly, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors may include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes.

There are several schools, childcare centers/preschools, and parks located in the vicinity of the project site, in addition to residences. The nearest residences (located adjacent to 14th Street, west of Brockton Avenue) would be approximately 435 feet from the nearest construction area (Phase I hospital bed tower). The nearest school (Grant Elementary School, which also houses a childcare center) would be approximately 285 feet from the construction area (Phase I hospital bed tower). The childcare center at Riverside Community College on Magnolia Avenue and 15th Street would be approximately 560 feet from the construction area (Phase IIc). A small park (Newman Park) is located at the southeast corner of Magnolia Avenue and 14th Street, approximately 190 feet from the nearest construction point (Phase IIa), though it is not heavily used by children or the elderly. Evans Sports Complex, an athletic facility used by adult college students for sports, is located south of the Calvary Presbyterian Church, approximately 450 feet away from the location of Phase IIc construction.

Pollutants and Effects

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, NO_2, CO, sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size ($PM_{2.5}$), and lead (Pb). These pollutants, as well as toxic air contaminants (TAC), are discussed below.[1] In California, sulfates (SO_4), vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors, such as hydrocarbons and NO_x. These precursors are mainly NO_x and volatile organic compounds (VOCs; also referred to as reactive organic compounds or gases (ROGs)). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere ozone layer (stratospheric ozone) as well as at the Earth's surface in the troposphere (ozone). O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers. NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections.

[1] The descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on the U.S. Environmental Protection Agency's *Six Common Air Pollutants* (EPA 2013a) and CARB's *Glossary of Air Pollutant Terms* (CARB 2012).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil, fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions; primarily, wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Fine particulate matter ($PM_{2.5}$) is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs. Respirable particulate matter, or coarse particulate matter (PM_{10}), is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport absorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle, as well as producing haze and reducing regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive are smokers, people who cannot breathe well through their noses, and exercising athletes (because many breathe through their mouths).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emission sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs (also referred to as ROGs). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emission sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. CARB classified "particulate emissions from diesel-fueled engines" (i.e., diesel particulate matter) as a TAC in August 1998. Diesel particulate matter is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with diesel particulate matter (CARB 2000). To reduce the cancer risk associated with diesel particulate matter, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000).

Related Regulations

Federal

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The U.S. Environmental Protection Agency (EPA) is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants, setting hazardous air pollutant standards, approving state attainment plans, setting motor vehicle emission standards, issuing stationary source emission standards and permits, and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. NAAQS are established for criteria pollutants under the Clean Air Act, which are O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan that demonstrates how those areas will attain the standards within mandated time frames.

State

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.2-1, Ambient Air Quality Standards.

Table 4.2-1
Ambient Air Quality Standards

Pollutant	Average Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary[c,d]*	*Secondary[c,e]*
O_3	1 hour	0.09 ppm (180 μg/m³)	—	Same as primary standard
	8 hours	0.070 ppm (137 μg/m³)	0.075 ppm (147 μg/m³)	
CO	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	None
	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	
NO_2	Annual arithmetic mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m³)	Same as primary standard
	1 hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m³)	
SO_2	1 hour	0.25 ppm (655 μg/m³)	0.075 ppm (196 μg/m³)	—
	3 hours	—	—	0.5 ppm (1300 μg/m³)
	24 hours	0.04 ppm (105 μg/m³)	0.14 ppm (for certain areas)[7]	—
	Annual	—	0.030 ppm (for certain areas)[7]	—
PM_{10}	24 hours	50 μg/m³	150 μg/m³	Same as primary standard
	Annual arithmetic mean	20 μg/m³	—	
$PM_{2.5}$	24 hours	No separate state standard	35 μg/m³	Same as primary standard
	Annual arithmetic mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³
Lead[f]	30-day average	1.5 μg/m³	—	—
	Calendar quarter	—	1.5 μg/m³ (for certain areas)[9]	Same as primary standard
	Rolling 3-month average	—	0.15 μg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 μg/m³)	—	—
Vinyl chloride[f]	24 hours	0.01 ppm (26 μg/m³)	—	—
Sulfates (SO_4)	24 hours	25 μg/m³	—	—
Visibility reducing particles	8 hours (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70%	—	—

Source: CARB 2013a.

ppm= parts per million by volume; μg/m³ = micrograms per cubic meter; mg/m³= milligrams per cubic meter

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter—PM_{10}, $PM_{2.5}$, 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 17 CCR 70200.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, 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% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant..

[f] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[g] In 2010, a new 1-hour SO_2 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 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

As part of its diesel risk reduction program, CARB adopted an Airborne Toxic Control Measure (ATCM) that applies to new and in-use stationary compression-ignition (i.e., diesel) engines. The ATCM was adopted in 2004 and revised in November 2010 with an effective date of May 19, 2011. After December 31, 2008, the ATCM requires that new emergency standby engines must comply with EPA emission standards applicable to a 2007-model-year off-road engine of the same horsepower rating. The ATCM further limits the particulate matter emissions from an emergency standby engine operated less than 50 hours per year for maintenance and testing to 0.15 gram per brake-horsepower-hour.

Local

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SCAB, where the project is located. The SCAQMD operates monitoring stations in the SCAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The SCAQMD's Air Quality Management Plans (AQMPs) include control measures and strategies to be implemented to attain the CAAQS and NAAQS in the SCAB. The SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

The SCAQMD's governing board adopted the 2003 AQMP on August 1, 2003. The 2003 AQMP updates the attainment demonstration for the federal standards for O_3 and PM_{10}, replaces the 1997 attainment demonstration for the federal CO standard, provides a basis for a maintenance plan for CO for the future, and updates the maintenance plan for the federal NO_2 standard that the SCAB has met since 1992 (SCAQMD 2003). On March 10, 2009, the EPA issued a final rule partially approving and partially disapproving the 2003 AQMP. On February 2, 2011, the U.S. Court of Appeals for the Ninth Circuit ruled that EPA's partial approval was

arbitrary and capricious. The court further ruled that the EPA should have ordered California to submit a revised attainment plan for the SCAB after it disapproved the 2003 AQMP and that the EPA should have required transportation control measures.

The SCAQMD's governing board adopted the 2007 AQMP on June 1, 2007. The 2007 AQMP includes the same updates as the 2003 AQMP and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools (SCAQMD 2007). As part of the 2007 AQMP, the SCAQMD requested that the EPA "bump up" the O_3 nonattainment status from severe to extreme to allow additional time for the SCAB to achieve attainment with the federal standard. The additional time would provide for implementation of state and federal measures that apply to sources over which the SCAQMD does not have control. The 2007 AQMP has been approved by CARB; however, on November 22, 2010, the EPA issued a proposed rule to approve in part and disapprove in part the portions related to attainment of the federal $PM_{2.5}$ standard. The EPA, however, approved the redesignation of the SCAB to an extreme O_3 nonattainment area, effective June 4, 2010.

On December 7, 2012, the SCAQMD's governing board adopted the Final 2012 AQMP (SCAQMD 2013), which is designed to meet applicable federal and state requirements for O_3 and particulate matter. The Final 2012 AQMP demonstrates attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 in the SCAB through adoption of all feasible measures. The 2012 AQMP also updates the EPA-approved 8-hour O_3 control plan with new measures designed to reduce reliance on the Clean Air Act Section 182(e)(5) long-term measures for NO_x and VOC reductions. Based on General Plans for cities and counties in the SCAB, demographic growth forecasts for various socioeconomic categories (i.e., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for their 2012 Regional Transportation Plan were used in the 2012 AQMP. In addition, emission reductions resulting from SCAQMD regulations adopted by June 2012 and CARB regulations adopted by August 2011 are included in the baseline. The 2012 AQMP reduction and control measures, which are outlined to mitigate emissions, are based on existing and projected land use and development. The Final 2012 AQMP was approved by CARB on January 25, 2013, and is being reviewed by the EPA.

Emissions that would result from mobile, stationary, and area sources during construction and operation of the project are subject to the rules and regulations of the SCAQMD. The SCAQMD rules applicable to the construction and operation of the project may include the following rules (SCAQMD 2011; the permitting, boiler, and engines rules would be applicable because the project would include devices subject to these rules).

Rule 201 – Permit to Construct: This rule establishes an orderly procedure for the review of new and modified sources of air pollution through the issuance of permits. Rule 201 specifies that any facility installing nonexempt equipment that causes or controls the emissions of air pollutants must first obtain a permit to construct from the SCAQMD.

Rule 401 – Visible Emissions: This rule establishes the limit for visible emissions from stationary sources. This rule prohibits visible emissions dark or darker than Ringlemann No.1 for periods greater than 3 minutes in any hour.

Rule 402 – Nuisance: This rule prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property.

Rule 403 – Fugitive Dust: This rule requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.

Rule 431.2 – Sulfur Content of Liquid Fuels: The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose both of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the SCAQMD. The rule also affects diesel fuel supplied for mobile source applications.

Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines: This rule applies to stationary and portable engines rated at greater than 50 horsepower. The purpose of Rule 1110.2 is to reduce NO_x, VOCs, and CO emissions from engines. Emergency engines, including those powering standby generators, are generally exempt from the emissions and monitoring requirements of this rule as they have permit conditions that limit operation to 200 hours or less per year as determined by an elapsed operating time meter.

Rule 1113 – Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters: This rule applies to boilers, steam generators, and process heaters of equal to or greater than 5 million British thermal units (Btu) per hour rated heat input capacity used in all industrial, institutional, and

commercial operations with the exception of boilers used by electric utilities to generate electricity, boilers and process heaters with a rated heat input capacity greater than 40 million Btu per hour that are used in petroleum refineries, and sulfur plant reaction boilers. Under this rule, the NO_x and CO exhaust concentration for Group III boilers (rated from 5 to less than 20 million Btu per hour) are limited to 9 ppm and 400 ppm, respectively, by volume referenced at 3% oxygen on a dry basis.

Regulation XIII – New Source Review: This regulation sets preconstruction review requirements for new, modified, or relocated facilities to ensure that the operation of such facilities does not interfere with progress in attainment of the NAAQS and that future economic growth within SCAQMD is not unnecessarily restricted. The specific air quality goal of this regulation is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. In addition to nonattainment air contaminants, this regulation will also limit emission increases of ammonia and O_3-depleting compounds from new, modified, or relocated facilities by requiring the use of best available control technology.

Regulation XIV – Toxics and Other Non-Criteria Pollutants: This regulation includes rules that regulate toxics and other non-criteria pollutants. It provides specifications for maximum individual cancer risk, cancer burden, and noncancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units that emit TACs. The rules establish allowable risks for permit units requiring new permits pursuant to Rules 201 or 203. Under this regulation, Rule 1401 (New Source Review of Toxic Air Contaminants) specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard indices from new permit units, relocations, or modifications to existing permit units that emit TACs listed in the rule. In addition, Rule 1401.1 (Requirements for New and Relocated Facilities near Schools) may impose other criteria on sources of TACs due to the proximity of schools to the project site.

South Coast Air Basin Attainment Designation

An area is designated "in attainment" when it is in compliance with the NAAQS and/or CAAQS. These standards are set by the EPA or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare with a margin of safety.

The criteria pollutants of primary concern considered in this air quality assessment include O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and lead. Although there are no ambient standards for VOCs or NO_x, they are important because they are precursors to O_3.

The entire SCAB is designated as a nonattainment area for both federal and state O_3 standards. The EPA has classified the SCAB as an "extreme nonattainment" area and has mandated that it achieve attainment no later than June 15, 2024. The federal NO_2 standard was revised in 2010, and all areas of California have been designated unclassifiable/ nonattainment. The SCAB is designated as a nonattainment area for the state NO_2 standards. The SCAB is designated as an attainment area for federal and state CO and SO_2 standards, as an attainment area for the federal PM_{10} standard and as a nonattainment area for the state PM_{10} standards. The SCAB is designated as a nonattainment area for both federal and state $PM_{2.5}$ standards. Riverside County is designated unclassifiable/attainment for state and federal lead standards.

The attainment classifications for these criteria pollutants are outlined in Table 4.2-2, SCAB Attainment Classification.

Table 4.2-2
SCAB Attainment Classification

Pollutant	Averaging Time	State Designation/Classification[a]	National Designation/Classification[b]
O_3	1 hour 8 hours	Nonattainment Nonattainment	— Nonattainment (extreme)
NO_2	1 hour Annual arithmetic mean	Nonattainment	Unclassifiable/attainment
CO	1 hour 8 hours	Attainment	Attainment (maintenance)
SO_2	1 hour 24 hours Annual arithmetic mean	Attainment	Unclassifiable
PM_{10}	24 hours Annual arithmetic mean	Nonattainment	Attainment (maintenance)
$PM_{2.5}$	24 hours Annual arithmetic mean	Nonattainment	Nonattainment
Lead (Pb)	Quarter	—	Unclassifiable/attainment
	3-month average	—	Unclassifiable/attainment
	30-day average	Attainment	—
Sulfates (SO_4)	24 hour	Attainment	—
Hydrogen sulfide (H_2S)	1 hour	Unclassified	—
Vinyl chloride[a]	24 hours	Unclassified	—
Visibility-reducing particles	8 hour (10:00 a.m.–6:00 p.m.)	Unclassified	—

Sources: CARB 2013b (state designation/classification); EPA 2013b (national designation/classification).
[a] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined.

Air Quality Monitoring Data

The project area's local ambient air quality is monitored by SCAQMD and CARB. CARB monitors ambient air quality at approximately 250 air quality monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The Riverside-Magnolia Monitoring Station, located at 7002 Magnolia Avenue, Riverside, California, is the nearest air quality monitoring station to the project area, approximately 2.2 miles southwest from the RCH site. The data collected at this station are considered representative of the air quality experienced in the project vicinity. Air quality data from 2010 through 2012 for the Riverside-Magnolia station are provided in Table 4.2-3, Ambient Air Quality Data. Because O_3 is not monitored at the Riverside-Magnolia station, O_3 measurements were taken from the Riverside-Rubidoux Monitoring Station (5888 Mission Boulevard, Rubidoux, California, approximately 2.4 miles southeast from the RCH site). The number of days exceeding the ambient air quality standards is shown in Table 4.2-4, Frequency of Air Quality Standard Violations.

Table 4.2-3
Ambient Air Quality Data
(parts per million unless otherwise indicated)

Pollutant	Averaging Time	2010	2011	2012	Most Stringent Ambient Air Quality Standard	Monitoring Station
O_3	1 hour	0.128	0.128	0.126	0.09	Riverside-Rubidoux
	8 hours	0.098	0.115	0.102	0.070	
NO_2	1 hour	0.061	0.057	0.060	0.100	Riverside-Magnolia
	Annual	0.017	N/A	N/A	0.030	
CO	1 hour*	2.5	3.1	2.7	20	Riverside-Magnolia
	8 hours	1.73	1.49	1.46	9.0	
SO_2	24 hours	0.005	N/A	N/A	0.04	Riverside-Magnolia
	Annual	0.001	0.000	N/A	0.030	
PM_{10}	24 hours	45.8 µg/m^3	89.4 µg/m^3	57.5 µg/m^3	50 µg/m^3	Riverside-Magnolia
	Annual	N/A	N/A	N/A	20 µg/m^3	
$PM_{2.5}$	24 hours	43.7 µg/m^3	51.6 µg/m^3	30.2 µg/m^3	35 µg/m^3	Riverside-Magnolia
	Annual	N/A	15.2	N/A	12 µg/m^3	

Sources: CARB 2013c; EPA 2013c (for 1-hour CO).
Note: Data taken from CARB iADAM (2012) or EPA AirData (2012) represent the highest concentrations experienced over a given year.
N/A = insufficient data available to determine the value; µg/m^3 = micrograms per cubic meter

Table 4.2-4
Frequency of Air Quality Standard Violations

Year	Number of Days Exceeding Standard					
	State 1-Hour O_3	*State 8-Hour O_3*	*National 8-Hour O_3*	*State 24-Hour PM_{10} [a]*	*National 24-Hour PM_{10} [a]*	*National 24-Hour $PM_{2.5}$ [a]*
2010	31	74	47	42.7 (7)	0.0 (0)	4.0 (4)
2011	52	92	67	30.3 (10)	N/A (0)	5.0 (5)
2012	27	70	47	51.7 (22)	0.0 (0)	7.0 (7)

Source: CARB 2013c
Note: Exceedances of federal and state standards are only shown for ozone and particulate matter. All other criteria pollutants did not exceed either federal or state standards during the years shown.
N/A = insufficient data available to determine the value.
[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 3 days, respectively. Number of days exceeding the standards is mathematical estimates of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

As Table 4.2-3 demonstrates, air quality within the project region is in compliance with both CAAQS and NAAQS for NO_2, CO, and SO_2. Federal and state 1-hour and 8-hour O_3 standards were, however, exceeded during each of the last 3 years, as shown in Table 4.2-4. The PM_{10} levels monitored at the air monitoring stations exceeded the state annual standards during each of the 3 years reported, and $PM_{2.5}$ levels exceeded the federal 24-hour standards during each of the 3 years reported.

4.2.2 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS and Appendix G, the project could have a significant impact on air quality if the project would:

- Conflict with or obstruct the implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O_3 precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people.

In addition, Appendix G of the CEQA Guidelines indicates that where available, the significance criteria established by the applicable AQMD or pollution control district may be relied upon to determine whether the project would have a significant impact on air quality. The most recent

version of the SCAQMD *CEQA Air Quality Handbook* (SCAQMD 1993) sets forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4.2-5, SCAQMD Air Quality Significance Thresholds, are exceeded.

A project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3, which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 4.2-5. These emissions-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly (see discussion of O_3 and its sources in Section 4.2.1), and the effects of an individual project's emissions of O_3 precursors (VOC and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods.

Table 4.2-5
SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	*Construction*	*Operation*
NO_x	100 lb/day	55 lb/day
VOCs	75 lb/day	55 lb/day
PM_{10}	150 lb/day	150 lb/day
$PM_{2.5}$	55 lb/day	55 lb/day
SO_x	150 lb/day	150 lb/day
CO	550 lb/day	550 lb/day
Lead[a]	3 lb/day	3 lb/day
Toxic Air Contaminants and Odor Thresholds		
TACs (including carcinogens and noncarcinogens)	Maximum incremental cancer risk ≥ 10 in 1 million Hazard index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants[b]		
NO_2 1-hour average NO_2 annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average PM_{10} annual arithmetic mean	10.4 μg/m³ (construction)[c] and 2.5 μg/m³ (operation) 1.0 μg/m³	
$PM_{2.5}$ 24-hour average	10.4 μg/m³ (construction)[c] and 2.5 μg/m³ (operation)	
SO_2 1-hour average SO_2 24-hour average	0.25 ppm (state) and 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfates (SO_4) 24-hour average	25 μg/m³ (state)	

Table 4.2-5
SCAQMD Air Quality Significance Thresholds

Ambient Air Quality for Criteria Pollutants[b]	
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)
Lead 30-day average[a] Lead rolling 3-month average[a] Lead quarterly average[a]	1.5 µg/m^3 (state) 0.15 µg/m^3 (federal) 1.5 µg/m^3 (federal)

Source: SCAQMD 1993.
lb/day = pounds per day; ppm = parts per million; µg/m^3 = microgram per cubic meter; ≥ = greater than or equal to
[a]The phasing out of leaded gasoline started in 1976; gasoline no longer contains lead.
[b]Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
[c]Ambient air quality threshold based on SCAQMD Rule 403.

The phasing out of leaded gasoline started in 1976. As gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

The SCAQMD *CEQA Air Quality Handbook* also sets forth additional indicators of potential air quality impacts that should be used as screening criteria indicating the need for further analysis. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.
- Project could result in population increases within the regional statistical area that would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- Project would have the potential to create or be subjected to an objectionable odor over 10 dilutions to thresholds (D/T) that could impact sensitive receptors.[2]
- Project would have hazardous materials on site and could result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety.
- Project could emit an air toxic contaminant regulated by SCAQMD rules or that is on a federal or state air toxic list.
- Project could involve burning of hazardous, medical, or municipal waste as waste-to-energy facility.

[2] This threshold would be applied to industrial and similar sources that would emit odorous substances, such as wastewater treatment plants and some chemical plants.

- Project could be occupied by sensitive receptors within a quarter mile of an existing facility that emits air toxics identified in SCAQMD Rule 1401 or near CO hotspots.
- Project could emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of 10 in 1 million (SCAQMD 1993).

In addition to the above-listed emissions-based thresholds, the SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of construction activities. Such an evaluation is referred to as a localized significance threshold (LST) analysis. For project sites greater than 5 acres, potential impacts on local sensitive receptors are determined using an air quality dispersion model. Those impacts are then compared to the LSTs. According to the SCAQMD's *Final Localized Significance Threshold Methodology*, the LST Methodology is not designed to evaluate localized impacts from mobile sources (such as material delivery and haul trucks) traveling over roadways (SCAQMD 2008). The Riverside-Magnolia station was identified as the representative meteorological monitoring station for the project. Data from this station were used to represent the meteorological conditions in Sensitive Receptor Area 23. The LSTs for NO_2 and CO were derived from the ambient air quality data in Sensitive Receptor Area 23 for the 3 previous years, as shown in Table 4.2-6, Localized Significance Thresholds. The LSTs for NO_2 and CO represent the allowable increase in concentrations above background levels in the vicinity of a project that would not cause or contribute to an exceedance of the relevant ambient air quality standards. The threshold for PM_{10} represents compliance with Rule 403 (Fugitive Dust). The significance threshold for $PM_{2.5}$ is intended to ensure that construction emissions do not contribute substantially to existing exceedances of the $PM_{2.5}$ ambient air quality standards. For construction, the LSTs for PM_{10} and $PM_{2.5}$ are both 10.4 micrograms per cubic meter ($\mu g/m^3$) (SCAQMD 2008). The LSTs applicable to construction of the project, along with the relevant ambient air quality standards, are shown in Table 4.2-6.

Table 4.2-6
Localized Significance Thresholds

Pollutant	Averaging Period	CAAQS/NAAQS		Peak Concentration (ppm)	LST Criteria[a]	
		µg/m³	*ppm*			
NO_2	1 hour	339	0.18	0.09	169	0.09
CO	1 hour	23,000	20	3.8	18,539	16.2
CO	8 hours	10,000	9.0	2.2	7,782	6.8
PM_{10}	24 hours	50	—	N/A	10.4	—
$PM_{2.5}$[b]	24 hours	35	—	N/A	10.4	—

Source: SCAQMD 2008.
CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million; LST = localized significance criteria; N/A = not applicable
[a] LST criteria for NO_2 and CO are the differences between CAAQS and the peak concentration.
[b] California has not adopted a 24-hour standard for $PM_{2.5}$. The 24-hour $PM_{2.5}$ standard shown is the national standard.

4.2.3 Project Elements That Can Reduce Impacts

The project proposes to incorporate design features that would reduce energy consumption; see Section 4.5, Greenhouse Gas Emissions, Table 4.5-3. The features listed in Table 4.5-3 that would maximize energy performance and reduce natural gas consumption would also reduce associated criteria air pollutant emissions.

In addition, RCH will incorporate transportation demand measures to help achieve the required vehicle reduction targets of the City's Transportation Demand Management Regulations (City of Riverside 2007a, Chapter 19.880). Proposed preferential parking for carpool vehicles, bicycle parking, and shower facilities would encourage RCH staff to use alternative forms of transportation. The provision of on-site amenities such as cafeterias and automated teller machines could eliminate or reduce the need for additional vehicle trips that would otherwise occur to access those services off site.

During construction, the hospital would take precautionary measures to protect its patients and staff from potential particulate matter emissions from demolition, earthmoving activities, and diesel equipment exhaust. Such measures may include requesting the contractor to institute more frequent watering of disturbed areas to further reduce fugitive dust, installing construction filter media on the air intake side of the air handler units to supplement existing high-efficiency particulate arresting (HEPA) filters, and inspecting or replacing HEPA filters more frequently.

4.2.4 Environmental Impacts Before Mitigation

Threshold: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Project- and Program-Level Elements

The project site is located within the SCAB under the jurisdiction of the SCAQMD, which is the local agency responsible for administration and enforcement of air quality regulations for the area. Construction and operation of the development proposed as part of the project may result in the emissions of additional short- and long-term criteria air pollutants in conflict with the SCAQMD AQMPs.

While striving to achieve the NAAQS for O_3 and $PM_{2.5}$ through a variety of air quality control measures, the Final 2012 AQMP also accommodates planned growth in the SCAB. Projects are considered consistent with, and would not conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors (e.g., population, employment) is consistent with the underlying regional plans used to develop the AQMP. The future emissions forecasts are primarily based on demographic and economic growth

projections provided by SCAG. Thus, demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by SCAG for their 2012 Regional Transportation Plan were used to estimate future emissions in the Final 2012 AQMP (SCAQMD 2013).

The project site is an existing hospital campus and is currently located in the City's Downtown Specific Plan–Health Care (DSP–HC) zone, which allows for the construction and operation of a hospital with a conditional use permit. The project includes expansion of hospital-related facilities through the preparation of a new Specific Plan (SP). An SP is proposed that will make future development more streamlined in that it will supersede existing entitlements, outline existing uses and future uses, and lay out a cohesive set of guidelines that will provide City staff, RCH, and the public with a clear understanding of how growth and development will occur at the site. The project would not result in direct population growth, because the project does not propose the development of additional housing. However, the project would require additional employees to serve the new hospital bed towers, mixed-use medical buildings, and any additional hospital expansions.

The project site is designated DSP and DSP–HC in the City's General Plan (GP) 2025 (City of Riverside 2007a) and Zoning Code (City of Riverside 2007b), respectively. The site is currently developed with a hospital campus, which is in compliance with the DSP–HC land use designation for the site. The project would be consistent with the DSP and DSP–HC land use and zoning designations as a hospital campus and no change in land use would occur with implementation of the project. An SP (Dudek n.d.) is being prepared specifically for the RCH campus, which will supersede the existing DSP (City of Riverside 2002). Because long-range plans for the site reflect continued hospital campus use in both the City's GP 2025 and the new SP, the project is considered to be consistent with the development envisioned in the City's GP 2025. It is reasonable to assume vehicle trip generation and planned development for the site has been anticipated in the SCAG growth projections because the land use would remain the same. Since the planned growth of RCH, its land use intensity, and associated vehicle trips have been factored into the underlying growth projections of the Final 2012 AQMP, the project would not result in a conflict with or obstruct implementation of the applicable air quality plan. As such, the project would not conflict with or obstruct implementation of the applicable air quality plan; impacts would be **less than significant** and no mitigation measures are necessary.

Threshold: Would the project violate any air quality standard or contribute substantially to an existing or project air quality violation?

Construction and operation of the project may result in emission of criteria air pollutants from mobile, area, and/or stationary sources, which may cause exceedances of federal and state ambient air quality standards or contribute to existing nonattainment of ambient air quality

standards. The following discussion identifies potential short- and long-term construction impacts that would result from implementation of the project. Feasible mitigation measures to reduce or avoid any potential significant impacts, as appropriate, are proposed.

Construction Emissions

Project- and Program-Level Elements

Construction of the project would result in the addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts. Fugitive dust (PM_{10} and $PM_{2.5}$) emissions would primarily result from grading and site preparation activities. NO_x and CO emissions would primarily result from the use of construction equipment and motor vehicles.

Pollutant emissions associated with construction activity were quantified using the California Emissions Estimator Model (CalEEMod), Version 2013.2.2, available online (http://www.caleemod.com). Construction emissions were calculated for the estimated worst-case day over the construction periods associated with each phase. Default values provided by the program were used where detailed project information was not available.

The project includes multiple phases of development. Construction details for Phase I have been estimated by RCH's contractor (Skanska); however, construction details for Phases IIa, IIb, and IIc have not yet been determined since those phases have not been planned for; therefore, representative reasonable construction details based on Phase I information have been assumed.

<u>Phase I</u>

Phase I of the project includes construction of a new, 251,500-square-foot, seven-story hospital bed tower, central plant modifications, removal of 69 parking spaces, seismic upgrades to the existing Building B, and demolition of the existing 61,135-square-foot Building N (medical office building 1) to accommodate the new hospital bed tower. The hospital bed tower would initially house up to 105 licensed beds, with 35 intensive care patient rooms and 70 medical and surgical patient rooms. Buildout of the shell space for 84 additional licensed beds in the hospital bed tower could occur as early as this phase, and is therefore accounted for in the total licensed beds under this phase. As a worst-case assumption, total bed count at the end of Phase I would be 562 licensed beds and total employees/staff at the end of Phase I would be 2,290 (RCH currently employs 1,960 employees and an additional 330 estimated employees would

be needed to serve the new tower). Total square footage of the development on the RCH campus at the end of Phase I would be 1,489,051 square feet.

Phase I of the project would occur sometime between 2014 and 2017. For purposes of estimating project emissions during Phase I, and based on information provided by RCH's contractor (Skanska), the analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Demolition (rooftop equipment removal and building razing): June 2014 (2 months)
- Grading: October 2014 (1.5 weeks)
- Trenching (underground infrastructure, building foundation, and concrete foundation): October 2014 (1.5 weeks)
- Building construction (building foundation systems, initial building framing, and major column installation; steel framing, exterior shell, and interior wall framing; exterior building shell, initial interior structures, and flooring systems; and site work, exterior site yard installations, and interior floor, wall, and ceiling): November 2014 (18.5 months)
- Architectural coating (interior construction, building commissioning, and exterior shell finishes): June 2016 (4 months)
- Paving: December 2016 (2 months).

The construction equipment mix and estimated hours of equipment operation per day used for the air emissions modeling of the project are shown in Table 4.2-7, Phase I Construction Equipment. For this analysis, it was assumed that heavy construction equipment would operate 5 days a week (22 days per month) during project construction. Table 4.2-7 also presents the estimated number of workers anticipated for each construction sequence. To estimate motor vehicle emissions generated by worker vehicles (i.e., light-duty trucks and automobiles), it was assumed that each worker would generate two one-way trips per day. Because no specific information regarding worker trips is known at this time, worker trips and trip distances were estimated using CalEEMod defaults.

In addition to construction equipment operation and worker trips, emissions from hauling trucks (dump trucks) and vendor trucks (delivery trucks) were estimated. Dump truck trips were assumed to be required during demolition, grading, trenching, and building construction phases, and vendor trucks transporting concrete, steel, and other building materials were assumed to be required during the building construction phase. The lengths of these trips were estimated using CalEEMod defaults (worker trip length: 14.7 miles; vendor trip length: 6.9 miles; hauling trip length: 20 miles). Estimated daily worker and vendor trips and total estimated haul truck trips are provided in

Appendix B. The construction of the Phase I seven-story, 251,500-square-foot hospital bed tower is anticipated to involve approximately 17,740 cubic yards of export with 2,218 haul trips.

Table 4.2-7
Phase I Construction Equipment

Construction Phase	Workers	Equipment	Quantity	Hours/Day
Demolition	15	Concrete/industrial saws	1	8
		Excavators	3	8
		Rubber-tired dozers	2	6
Grading	15	Excavators	1	8
		Graders	1	8
		Rubber-tired dozers	1	6
		Tractors/loaders/backhoes	3	8
Trenching	5	Excavators	1	8
		Tractors/loaders/backhoes	1	8
Building construction	23	Cranes	2	4
		Forklifts	2	8
		Generator sets	1	8
		Tractors/loaders/backhoes	3	7
		Welders	1	8
Architectural coating	5	Air compressors	2	6
Paving	10	Pavers	1	8
		Paving equipment	2	6
		Rollers	1	6

Source: Skanska 2013.

Implementation of the project would generate construction-related air pollutant emissions from three general activity categories: entrained dust, equipment and vehicle exhaust emissions, and architectural coatings. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. To account for dust control measures to comply with SCAQMD Rule 403 in the calculations, it was assumed that the active sites would be watered at least three times daily, resulting in a 61% reduction in fugitive dust as implemented by CalEEMod. Exhaust from internal combustion engines used by construction equipment and hauling trucks (dump trucks) and vendor trucks (delivery trucks) and worker vehicles would result in emissions of NO_x, VOCs, CO, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings). To ensure that these requirements are met, the City will require the project proponent to comply with SCAQMD Rule 403 and SCAQMD Rule 1113, which will be included in the project's conditions of approval.

Table 4.2-8, Phase I Estimated Maximum Daily Construction Emissions, presents the estimated maximum unmitigated daily construction emissions generated during construction of the project in each year, including demolition of Building N.

Table 4.2-8
Phase I Estimated Maximum Daily Construction Emissions
(pounds/day unmitigated)

	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Year 2014	8.58	126.09	76.66	0.21	13.77	7.53
Year 2015	3.99	33.20	23.47	0.04	2.59	2.09
Year 2016	17.07	48.27	35.51	0.06	3.66	3.00
Year 2017	1.05	11.07	8.57	0.01	0.71	0.58
Maximum daily emissions	17.07	126.09	76.66	0.21	13.77	7.53
Pollutant threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	No	Yes	No	No	No	No

Notes: See Appendix B for complete results.
These estimates reflect control of fugitive dust required by SCAQMD Rule 403.

Maximum daily emissions of NO_x would occur during the demolition, grading, and trenching phase in 2014 as a result of exporting materials, off-road equipment operation, and on-road haul trucks. Fugitive dust and off-road equipment emissions during the demolition, grading and trenching phase in 2014 would generate the maximum daily $PM_{2.5}$ emissions. Maximum daily PM_{10} emissions would also occur during the demolition, grading, and trenching phase in 2014 and would primarily result from paved road dust generated by off-site haul trucks exporting waste to the closest landfill. The application of architectural coatings in 2016 would produce the maximum daily VOC emissions.

As shown in Table 4.2-8, daily construction emissions during Phase I of the project would not exceed the SCAQMD significance thresholds for VOC, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction in any of the construction years. Furthermore, construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions. In addition, the project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during the demolition and other grading activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering the active sites approximately three times daily, depending on weather conditions. The project, however, would exceed daily construction emissions thresholds for NO_x during Phase I of the project. As shown in Table 4.2-8, maximum construction-generated NO_x emissions of 126.09 pounds per day would exceed the SCAQMD's quantitative significance threshold of 100 pounds per day. As such, Phase I of the project would result in a **potentially significant** impact to air quality. Mitigation measure **MM AQ-1** (see Section 4.2.5, Mitigation Measures) shall be incorporated during Phase I project construction to lessen impacts related to NO_x emissions.

Even with implementation of **MM AQ-1**, construction impacts from Phase I are considered **significant** and unavoidable.

Phase IIa

Phase IIa would occur sometime between 2017 and 2024. Phase IIa includes the demolition of the 58,705-square-foot Building A structure and an approximately 100,000-square-foot mixed-use building on the Building A site. Buildout of the shell space (84 additional licensed beds) in the Phase I tower would most likely occur during this phase; however, it could occur during Phase I and is therefore analyzed as part of Phase I as a worst-case scenario. No new licensed beds would be proposed in the mixed-use building; as such, total licensed bed count at the end of Phase IIa would remain at 562.

Construction schedule and construction equipment is not known as this time, but estimated dates are needed for the purpose of calculating the construction emissions in CalEEMod. The analysis contained herein uses default equipment in CalEEMod and is based on the following worst-case, conservative assumptions because emissions from off-road equipment and motor vehicles would be higher if construction were to occur in the earlier years (duration of phases is approximate):

- Demolition (rooftop equipment removal and building razing): April 2017 (2 months)
- Grading: July 2017 (1 week)
- Trenching (underground infrastructure, building foundation, and concrete foundation): July 2017 (1.5 weeks)
- Building construction (building foundation systems, initial building framing, and major column installation; steel framing, exterior shell, and interior wall framing; exterior building shell, initial interior structures, and flooring systems; and site work, exterior site yard installations, and interior floor, wall, and ceiling): August 2017 (7.5 months)
- Architectural coating (interior construction, building commissioning, and exterior shell finishes): January 2018 (3.5 months)
- Paving: June 2018 (2 months).

The construction equipment mix and estimated hours of equipment operation per day used for the air emissions modeling of the project are shown in Table 4.2-9, Phase IIa Construction Equipment. For this analysis, and again to provide a worst-case depiction of potential impacts, it was assumed that heavy construction equipment would operate 5 days a week (22 days per month) during project construction, again in addition to the conservatism of the analysis. Table 4.2-9 also presents the estimated number of workers anticipated for each construction sequence. To estimate motor vehicle emissions generated by worker vehicles (i.e., light-duty trucks and automobiles), it was assumed that each worker would generate two one-way trips per day.

Because no specific information regarding worker trips is known at this time, worker trips and trip distances were estimated using CalEEMod defaults.

In addition to construction equipment operation and worker trips, emissions from hauling trucks (dump trucks) and vendor trucks (delivery trucks) were estimated. Dump truck trips were assumed to be required during demolition, grading, trenching, and building construction phases and vendor trucks transporting concrete, steel, and other building materials were assumed to be required during the building construction phase. The lengths of these trips were estimated using CalEEMod defaults (worker trip length: 14.7 miles; vendor trip length: 6.9 miles; hauling trip length: 20 miles). Estimated daily worker and vendor trips and total estimated haul truck trips are provided in Appendix B. Because the only known information is that the Phase IIa mixed-use building would be 100,000 square feet and no other specific information is provided for export during Phase IIa grading, based on estimated proportion from square footage of development and the export details given during Phase I, it was assumed that the Phase IIa mixed-use building would be a maximum of three stories high and approximately 16,458 cubic yards of export and 2,058 haul trips would occur during Phase IIa.

Table 4.2-9
Phase IIa Construction Equipment

Construction Phase	Workers	Equipment	Quantity	Hours/Day
Demolition	15	Concrete/industrial saws	1	8
		Rubber-tired dozers	2	6
		Excavators	3	8
Grading	13	Graders	1	8
		Rubber-tired dozers	1	6
		Tractors/loaders/backhoes	2	7
		Excavators	1	8
Trenching	5	Excavators	1	8
		Tractors/loaders/backhoes	1	8
Building construction	18	Cranes	1	4
		Forklifts	2	7
		Generator sets	1	8
		Tractors/loaders/backhoes	2	6
		Welders	1	8
Architectural coating	5	Air compressors	2	6
Paving	8	Pavers	1	8
		Paving equipment	1	8
		Rollers	1	8

Implementation of the project would generate construction-related air pollutant emissions from three general activity categories: entrained dust, equipment and vehicle exhaust emissions, and architectural coatings. Entrained dust would result from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. To account for dust control measures to comply with SCAQMD Rule 403 in the calculations, it was assumed that the active sites would be watered at least three times daily, resulting in an approximately 61% reduction. Exhaust from internal combustion engines used by construction equipment and hauling trucks (dump trucks) and vendor trucks (delivery trucks) and worker vehicles would result in emissions of NO_x, VOCs, CO, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings). To ensure these requirements are met, the City will require the project proponent to comply with SCAQMD Rule 403 and SCAQMD Rule 1113, which will be included in the project's conditions of approval.

Table 4.2-10, Phase IIa Estimated Maximum Daily Construction Emissions, presents the estimated maximum unmitigated daily construction emissions generated during construction of the project in each year and demolition of Building A.

Table 4.2-10
Phase IIa Estimated Maximum Daily Construction Emissions
(pounds/day unmitigated)

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Year 2017	7.05	102.92	73.06	0.23	13.46	6.70
Year 2018	9.33	29.69	26.09	0.04	2.26	1.84
Maximum daily emissions	9.33	102.92	73.06	0.23	13.46	6.70
Pollutant threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	No	Yes	No	No	No	No

Notes: See Appendix B for complete results.
These estimates reflect control of fugitive dust required by SCAQMD Rule 403.

Maximum daily emissions of NO_x would occur during the demolition, grading, trenching, and a portion of building construction in 2017 as a result of exporting materials, off-road equipment operation, and on-road haul trucks. Fugitive dust and off-road equipment emissions during the grading and site demolition phase would generate the maximum daily $PM_{2.5}$ emissions in 2017. Maximum daily PM_{10} emissions would occur during building construction in 2017, and would primarily result from paved road dust generated by off-site haul trucks exporting waste to the closest landfill. The application of architectural coatings in 2017 would produce the maximum daily VOC emissions.

As shown in Table 4.2-10, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction in any of the construction years. Furthermore, construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions. In addition, the project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during the demolition and other grading activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites approximately three times daily, depending on weather conditions. Construction of the project, however, would exceed daily construction emissions thresholds for NO_x during Phase IIa of the project. As shown in Table 4.2-10, maximum construction-generated NO_x emissions of 102.92 pounds per day would exceed the SCAQMD's quantitative significance threshold of 100 pounds per day. As such, Phase IIa of the project would result in a **potentially significant** impact to air quality. Mitigation measure **MM AQ-1** (see Section 4.2.5) shall be implemented during Phase IIa project construction to lessen impacts related to NO_x emissions. Even with implementation of **MM AQ-1**, construction impacts from Phase IIa are considered **significant** and unavoidable.

Phase IIb

Phase IIb would occur sometime between 2024 and 2029. Phase IIb consists of a second new, estimated nine-story, 180-foot-tall, 600,000+-square-foot replacement bed tower, totaling 339 licensed beds (273 licensed beds relocated from Building B and 66 licensed beds relocated from Building D to the proposed replacement bed tower after the seismic upgrades are complete under Phase I). The relocation of 339 licensed beds would keep the number of licensed beds on campus at 562. Phase IIb focuses on relocating licensed beds and acute care services out of Building B and Building D to the new second tower because as of 2030, those Buildings B and D will no longer be in compliance with Senate Bill (SB) 1953. Once the licensed beds are relocated to the new second hospital bed tower, Building B and Building D will be used for outpatient, skilled nursing, and support services and education (i.e., University of California at Riverside (UCR) program space). Phase IIb includes the existing parking structures (identified as Buildings I and J on Figure 1.0-3, Site Plan) to be demolished prior to the construction of the Phase IIb replacement bed tower and future construction of Phase IIc of the project. A total of 197,133 square feet of demolition would occur (the parking structure identified as Building I in Figure 1.0-3, Site Plan, is 96,084 square feet and the parking structure identified as Building J is 101,049 square feet). An addition of 38 licensed beds could occur as early as this phase, and is therefore accounted for in the total licensed beds under this phase. As a worst-case assumption, total bed count at the end of Phase IIb would be 600 licensed beds. Some additional convenience parking could be included during this phase.

Construction schedule and construction equipment is not known as this time, but estimated dates are needed for the purpose of calculating the construction emissions in CalEEMod. The analysis contained herein used default equipment in CalEEMod and is based on the following worst-case, conservative assumptions because emissions from off-road equipment and motor vehicles would be higher if construction were to occur in the earlier years (duration of phases is approximate):

- Demolition (rooftop equipment removal and building razing): June 2024 (5 months)
- Grading: January 2025 (3 weeks)
- Trenching (underground infrastructure, building foundation, and concrete foundation): February 2025 (2 weeks)
- Building construction (building foundation systems, initial building framing, and major column installation; steel framing, exterior shell, and interior wall framing; exterior building shell, initial interior structures, and flooring systems; and site work, exterior site yard installations, and interior floor, wall, and ceiling): March 2025 (22 months)
- Architectural coating (interior construction, building commissioning, and exterior shell finishes): February 2027 (5 months)
- Paving: August 2027 (3 months).

The construction equipment mix and estimated hours of equipment operation per day used for the air emissions modeling of the project are shown in Table 4.2-11, Phase IIb Construction Equipment. For this analysis, it was assumed that heavy construction equipment would operate 5 days a week (22 days per month) during project construction. Table 4.2-11 also presents the estimated number of workers anticipated for each construction sequence. To estimate motor vehicle emissions generated by worker vehicles (i.e., light-duty trucks and automobiles), it was assumed that each worker would generate two one-way trips per day. Because no specific information regarding worker trips is known at this time, worker trips and trip distances were estimated using CalEEMod defaults.

In addition to construction equipment operation and worker trips, emissions from hauling trucks (dump trucks) and vendor trucks (delivery trucks) were estimated. Dump truck trips were assumed to be required during demolition, grading, trenching, and building construction phases and vendor trucks transporting concrete, steel, and other building materials were assumed to be required during the building construction phase. The lengths of these trips were estimated using CalEEMod defaults (worker trip length: 14.7 miles; vendor trip length: 6.9 miles; hauling trip length: 20 miles). Estimated daily worker and vendor trips and total estimated haul truck trips are provided in Appendix B. Because the only known information is that the Phase IIb hospital bed tower would be nine stories and 600,000+ square feet and no other specific information is provided for export during Phase IIb grading, based on estimated proportion from square footage of development and the export details given during Phase I, it was assumed that the Phase IIb hospital bed tower would involve approximately 32,917 cubic yards of export and 4,114 haul trips.

Table 4.2-11
Phase IIb Construction Equipment

Construction Phase	Workers	Equipment	Quantity	Hours/Day
Demolition	15	Concrete/industrial saws	1	8
		Excavators	3	8
		Rubber-tired dozers	2	6
Grading	15	Excavators	1	8
		Graders	1	8
		Rubber-tired dozers	1	6
		Tractors/loaders/backhoes	3	8
Trenching	23	Excavators	1	8
		Tractors/loaders/backhoes	1	8
Building construction	5	Cranes	2	4
		Forklifts	2	8
		Generator sets	1	8
		Tractors/loaders/backhoes	3	7
		Welders	1	8
Architectural coating	10	Air compressors	2	6
Paving	8	Pavers	1	8
		Paving equipment	2	6
		Rollers	1	6

Implementation of the project would generate construction-related air pollutant emissions from three general activity categories: entrained dust, equipment and vehicle exhaust emissions, and architectural coatings. Entrained dust would result from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. To account for dust control measures to comply with SCAQMD Rule 403 in the calculations, it was assumed that the active sites would be watered at least three times daily, resulting in an approximately 61% reduction. Exhaust from internal combustion engines used by construction equipment and hauling trucks (dump trucks) and vendor trucks (delivery trucks) and worker vehicles would result in emissions of NO_x, VOCs, CO, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings). To ensure these requirements are met, the City will require the project proponent to comply with SCAQMD Rule 403 and SCAQMD Rule 1113, which will be included in the project's conditions of approval.

Table 4.2-12, Phase IIb Estimated Maximum Daily Construction Emissions, presents the estimated maximum unmitigated daily construction emissions generated during construction of the project in each year, including the demolition of the parking structures identified as Buildings I and J in Figure 1.0-3, Site Plan.

Table 4.2-12
Phase IIb Estimated Maximum Daily Construction Emissions
(pounds/day unmitigated)

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Year 2024	1.87	16.33	20.57	0.03	2.30	0.95
Year 2025	3.91	35.58	51.76	0.17	10.53	5.00
Year 2026	1.85	15.26	23.16	0.05	1.47	0.81
Year 2027	27.57	22.39	35.48	0.07	1.98	1.17
Maximum daily emissions	27.57	35.58	35.48	0.07	10.53	5.00
Pollutant threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	No	No	No	No	No	No

Notes: See Appendix B for complete results.
These estimates reflect control of fugitive dust required by SCAQMD Rule 403.

Maximum daily emissions of NO_x would occur during the grading, trenching, and building construction phase in 2025 as a result of exporting materials, off-road equipment operation, and on-road haul trucks. Fugitive dust and off-road equipment emissions during the grading, trenching, and building construction phase in 2025 would generate the maximum daily $PM_{2.5}$ emissions. Maximum daily PM_{10} emissions would also occur during the grading, trenching, and building construction phase in 2025, and would primarily result from paved road dust generated by off-site haul trucks exporting waste to the closest landfill. The application of architectural coatings in 2027 would produce the maximum daily VOC emissions.

As shown in Table 4.2-12, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction in any of the construction years. According to SB 621 and CARB regulations for in-use diesel truck fleets, by January 1, 2023, nearly all trucks will need to have 2010 model-year engines or the equivalent, which will contribute to lowering NO_x emissions during the construction phases. Furthermore, construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions. In addition, the project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during the demolition and other grading activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites approximately three times daily, depending on weather conditions. Construction emissions from Phase IIb would be **less than significant** since emissions are below the thresholds.

Phase IIc

Phase IIc would occur sometime between 2030 and 2043. The addition of 38 licensed beds is proposed under Phase IIc but could occur in Phase IIb if need is demonstrated prior to 2030; therefore, the addition of 38 licensed beds is analyzed as part of Phase IIb as a worst-case

scenario because emissions from off-road equipment and motor vehicles associated with the 38 licensed beds would be higher if construction were to occur in the earlier years. Total beds on the RCH campus would remain at 600 licensed beds under Phase IIc. It is expected that Phase IIc would include construction of ancillary services as necessary and construction of surface or structure parking as needed to support growth.

Long-range development as part of Phase IIc of the project could include future acute care expansions, parking structures, or other ancillary uses including, but not limited to, the following:

- Acute care services
- Central utility plants
- Medical office buildings and clinics
- Outpatient services buildings
- Education centers
- Dental clinics
- Imaging centers
- Pharmacies
- Wellness centers
- Physical therapy or rehabilitation centers
- Community centers
- Optometry services
- Medical retail (medical supplies)
- Off-site street parking, parking structures, or surface parking lots
- Hotel facilities.

With the exception of parking structures and hotel facilities, as potential Phase IIc uses, acute care services, central utility plants, medical office buildings and clinics, the outpatient services building, education centers, dental clinics, imaging centers, pharmacies, wellness centers, physical therapy or rehabilitation centers, community centers, optometry services, and medical retail facilities would likely result in construction emissions similar to those from Phase IIa or Phase IIb of the project. No new licensed beds, which would result in additional vehicle trips, would be included in Phase IIc for the purposes of this analysis. Additionally, these uses would result in similar footprint, scale, and mass to that of the structures proposed in Phase IIa or Phase IIb.

The proposed hotel in Phase IIc would serve families visiting long-term patients at the hospital, thus reducing the trips from off-site hotels to and from the RCH site. However, at this time, only the general location of Phase IIc is known; there is no information on the approximate size of construction or possible demolition activities under Phase IIc. The project has not yet been defined for Phase IIc; therefore, criteria pollutant emissions for Phase IIc must be reviewed and assessed in a subsequent analysis. In order to verify that air quality impacts would not exceed the SCAQMD thresholds, mitigation measure **MM AQ-2** (see Section 4.2.5), which requires the preparation of a site-specific air quality technical report in conjunction with future discretionary actions for Phase IIc, would be implemented. Because it is not certain that implementation of **MM AQ-2** would result in less than significant impacts, construction-

related impacts to the air quality standards from Phase IIc would be considered **potentially significant** and unavoidable.

Operational Emissions

Following the completion of construction activities, the project would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from mobile and stationary sources including vehicular traffic generated by patients, visitors, physicians/staff, and emergency vehicles (i.e., ambulance), area sources (space heating, water heating, landscaping), diesel generators, and steam boilers. For purposes of this analysis, the emissions associated with buildout of Phase I of the project (2017) are compared to the baseline scenario (i.e., includes the existence of the medical office building (Building P) and the new parking structure (Building O) currently under construction and expected for completion in early 2014) and the emissions associated with buildout of Phase IIb of the project (2030) are also compared to the baseline scenario to determine the net operational emissions associated with the project. The operational emissions from Phase IIa are included in the emissions associated with buildout of Phase IIb of the project. Buildout of Phase IIc of the project is 2043; however, at this time, there is no specified land use defined for Phase IIc of the project. Land uses expected for Phase IIc are listed above. With the exception of hotel facilities, as potential Phase IIc uses, acute care services, central utility plants, medical office buildings and clinics, outpatient services building, education centers, dental clinics, imaging centers, pharmacies, wellness centers, physical therapy or rehabilitation centers, community centers, optometry services, and medical retail facilities would likely result in direct operational emissions similar to those from buildout of Phase I or Phase IIb of the project, as compared to the baseline scenarios, because similar energy-efficient technologies would be used and the scale and massing of these uses would likely be less than those of a hospital bed tower. Parking structures would not generate additional operational emissions because parking structures do not generate vehicle trips or other sources of air pollutants. The motor vehicles utilizing the parking structures and their associated emissions would be captured from the development on site. Therefore, operational emissions for Phase IIc must be reviewed and assessed in a subsequent analysis. To verify that air quality impacts would not exceed those allowed under the SCAQMD thresholds, mitigation measure **MM AQ-2** (see Section 4.2.5), which calls for the preparation of a site-specific air quality technical report prior to Phase IIc would be incorporated so that the air quality impacts can be quantified once specific projects are proposed and so mitigation measures can be incorporated, if necessary and feasible, to lessen those impacts.

The RCH campus is currently developed with 328,921 square feet of hospital facilities with 373 licensed beds, 82,240 square feet of hospital facilities without beds, and 184,392 square feet of medical office buildings. Under the baseline conditions (existing plus approved development), the hospital facilities and licensed beds described above in the existing

conditions remain the same; however, the medical office building would total 245,392 square feet. Existing parking structures are not part of the operational impacts discussion because they do not generate vehicle trips or other sources of air pollutant emissions. The trips by passenger vehicles utilizing the parking structures and their associated emissions have already been captured from the development on site.

The project would impact air quality through the vehicular traffic generated by the project. Emissions associated with project-generated daily traffic were modeled using trip-generation rates from the Traffic Impact Analysis (Kimley-Horn 2014; see Appendix I to this EIR), which considered 30% of the trips to reflect internal capture (e.g., non-vehicular trips between medical offices and hospital buildings). CalEEMod was utilized to estimate daily emissions from proposed vehicular sources. CalEEMod default data, including temperature, trip characteristics, variable start information, and trip distances, were conservatively used for the model inputs.

Project-related traffic was assumed to be composed of a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for 2014 were used to estimate emissions associated with the baseline scenario, while 2017 and 2030 emission factors were used to estimate emissions associated with the Phase I buildout and Phase IIb buildout of the project, respectively.

In addition to estimating mobile source emissions, CalEEMod was used to estimate emissions from the project's area sources, which include other natural gas combustion, landscaping, and architectural coatings for maintenance of buildings. Refer to Appendix B for more information.

Emissions associated with steam boilers and emergency generators were also calculated and included in the total project-generated emissions estimate. The existing central plant contains three natural-gas-fired steam boilers and three emergency standby generators (each rated at 750 kilowatts). The generators are for emergency backup only and operate during limited hours for testing and maintenance and during electrical power outages. Run time for code-required testing is less than the allowable annual hours in the SCAQMD permits to operate. Replacement boilers and additional emergency generators would be installed as part of the project. Details pertaining to the boilers and emergency generators are described in Appendix B.

The proposed boiler system would allow for the replacement of the existing steam boilers in the existing central plant. The boilers will be provided to meet all applicable SCAQMD requirements. The new heating system proposed for the hospital expansion consists of dual-fuel (natural gas with fuel oil backup), high-pressure steam boilers, with low NO_x emissions limited to 9 ppm (equivalent to 0.011 pounds per million Btu), with shell and tube heat

exchangers for domestic and heating hot water within the new central plant. RCH proposes four 350-boiler-horsepower fire-tube steam boilers with one of the boilers as standby. The new central plant will require a new natural gas service to feed the boilers (CCRD 2013).

RCH currently has three existing emergency generators, which are assumed to remain on site. Operational emissions under the project would result from intermittent use of diesel-powered emergency generators for maintenance and testing purposes. Under current plans for Phase I, two 1,500-kilowatt emergency generators would be installed. No plans have been made for additional emergency generators for Phase IIb; however, it is assumed that two additional generators would be installed to provide standby power for the Phase IIb hospital tower. Each generator is assumed to run for testing and maintenance up to 1 hour each week, for a total of 50 hours per year. To minimize daily emissions, no more than two units would be operated for maintenance and testing purposes on a single day. Generator engines would meet the EPA standards for Tier 2 engines and 0.15 gram of particulate matter per horsepower-hour as required by the CARB ATCM for new and in-use stationary diesel engines.

Baseline Operational Emissions Summary

The estimation of operational area source emissions generated under existing (baseline) conditions was based on the hospital with licensed beds by total area (i.e., square footage) and number of hospital licensed beds, the hospital without beds by total area (i.e., square footage), and the medical office building by total area (i.e., square footage) in operation at the time the EIR analysis was prepared in addition to the medical office building (Building P), which was under construction and anticipated to be completed prior to Phase I construction. The parking structure (Building O) was also under construction during EIR preparation and is considered to be part of the existing facility in the baseline scenario; however, this building was not included in the baseline operational emissions calculation because parking structures do not generate vehicle trips or other sources of air pollutants. The 2009 to 2012 data on energy usage provided by RCH was used and converted to site-specific energy factors for hospital uses. Default CalEEMod energy factors were used for the medical office buildings. Vehicle trip generation was based on the rates by land use type in the Traffic Impact Analysis for the project (Kimley-Horn 2014; see Appendix I). Table 4.2-13, Baseline Conditions (Year 2014) Estimated Maximum Daily Operational Emissions, presents the maximum daily area and vehicle source emissions under baseline conditions. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix B.

Table 4.2-13
Baseline Conditions (Year 2014) Estimated Maximum Daily Operational Emissions (pounds/day unmitigated)

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area source emissions	19.00	16.60	14.02	0.10	1.26	1.26
Vehicular source emissions	64.88	221.47	689.26	1.41	105.97	30.52
Combined total emissions	83.88	238.07	703.28	1.51	107.23	31.78

Notes: See Appendix B for complete results.
Baseline conditions include Building P (medical office building), which is currently under construction. Building O (parking structure) was not part of baseline operational emissions calculation because parking structures do not generate vehicle trips or other sources of air pollutants. The motor vehicles utilizing the parking structures and their associated emissions have already been captured from the development on site.

Descriptions of the scenarios under Phase I and under Phase IIb (which includes prior construction under Phase I and Phase IIa) and emissions estimates for mobile and area source emissions for these phases are provided below. It should be noted that construction of the new buildings would operate as the same hospital-related land uses on site, provide similar facilities, and serve essentially the same users as the existing buildings do.

Project Operational Emissions Summary

Phase I

Phase I of the project includes construction of a new, 251,500-square-foot, seven-story hospital bed tower, central plant construction, removal of 69 parking spaces, seismic upgrades to existing Building B, and the demolition of the existing 61,135-square-foot Building N (medical office building 1) to accommodate the new hospital bed tower. Total employees/staff at the end of Phase I would be 2,290 (RCH currently employs 1,960 employees; an additional 330 estimated employees would be needed to serve the new tower). Operations on the RCH campus after the Phase I development (Year 2017) would total 580,421 square feet of hospital facilities with up to 562 hospital licensed beds, 82,240 square feet of hospital facilities without beds, and 184,257 square feet of medical office buildings. Table 4.2-14, Phase I (Year 2017) Estimated Maximum Daily Operational Emissions, presents the maximum daily area source emissions, emergency generators, and vehicle source emissions after construction completion of Phase I of the project. The values shown are the maximum summer or winter daily emissions (i.e., worst-case) results from CalEEMod. Details of the emission calculations are provided in Appendix B. Emissions estimated from the baseline emissions in Year 2014 (refer to Table 4.2-13) are compared to the emissions scenario for Phase I of the project (Year 2017) to illustrate the net change in emissions associated with implementation of Phase I of the project.

Table 4.2-14
Phase I (Year 2017) Estimated Maximum Daily Operational Emissions
(pounds/day unmitigated)

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area source emissions	25.07	26.54	22.38	0.16	2.02	2.02
Emergency generators[a]	2.24	42.57	24.27	0.05	1.40	1.37
Vehicular source emissions	58.03	199.03	627.84	1.68	125.36	35.31
Combined total emissions	85.34	268.14	674.49	1.89	128.78	38.70
Baseline emissions[b]	83.88	238.07	703.28	1.51	107.23	31.78
Net change in emissions	1.46	30.07	(28.79)	0.38	21.55	6.92
Pollutant threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold exceeded?	No	No	No	No	No	No

Note: See Appendix B for detailed results.
[a] Each emergency generator unit would be tested for up to 1 hour each week. Assume both generators would be tested on a single day.
[b] Baseline emissions include Building P (medical office building), which is currently under construction. Building O (parking structure) was not part of baseline operational emissions calculation because parking structures do not generate vehicle trips or other sources of air pollutants. The motor vehicles utilizing the parking structures and their associated emissions have already been captured from the development on site.

As shown in Table 4.2-14, the net change in combined daily area and vehicular source emissions would not exceed the SCAQMD operational thresholds for VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$. While the project would increase the number of patients, visitors, and physicians/staff and the square footage of buildings relative to existing conditions, the emissions of several air pollutants would decrease over the next 3 years. This reduction would occur, in part, because more stringent motor vehicle emission standards would reduce total emissions as older, high-emitting vehicles are replaced with newer, cleaner vehicles. Other sources of VOC emissions, however, such as consumer products and architectural coatings for building maintenance, would increase because the estimated emissions from these sources are a function of building area, which would increase. Overall, however, the net change indicates a reduction in emissions of some pollutants because motor vehicle emissions dominate and per vehicle trip emissions will decrease over time due to fleet turnover and various regulations compared to current levels; therefore, impacts would be considered **less than significant** for Phase I operational emissions.

Phase IIa and Phase IIb

Construction of Phase IIa project components would occur sometime between 2017 and 2024 and would consist of the demolition of Building A since it is not in compliance with SB 1953 and can no longer house acute care services. An approximately 100,000-square-foot mixed-use building is proposed on the Building A site. In addition, the buildout of the shell space (84 additional licensed beds) in the Phase I tower would most likely occur during this phase (or earlier if necessary). Once the tower has been built, the maximum bed capacity on campus would

be 562 licensed beds. Additional surface or structure parking is also anticipated to be needed in this phase to support the new space.

Construction of Phase IIb project components would occur sometime between 2024 and 2029 and would consist of a second new, estimated nine-story, 180-foot tall, 600,000+-square-foot replacement bed tower, totaling 339 licensed beds (273 licensed beds relocated from Building B and 66 licensed beds relocated from Building D to the proposed replacement bed tower after the seismic upgrades are complete under Phase I). The relocation of 339 licensed beds would keep the number of licensed beds on campus at 562. The addition of 38 licensed beds could occur in this phase if need is demonstrated prior to 2030. Phase IIb focuses on relocating licensed beds and acute care services out of Building B and Building D to the new second tower because as of 2030, Buildings B and D will no longer be in compliance with SB 1953. Once the licensed beds are relocated to the second new hospital bed tower, Building B and Building D will be used for outpatient, skilled nursing, and support services and education (i.e., UCR program space). Phase IIb includes demolishing the existing parking structures (identified as Buildings I and J on Figure 1.0-3, Site Plan) prior to the construction of the Phase IIb replacement bed tower and future construction of Phase IIc of the project. Some additional convenience parking could be included during this phase.

Operation on the RCH campus after the Phase IIb development (Year 2030) would total 962,950 square feet of hospital facilities with up to 600 licensed beds, 241,006 square feet of hospital facilities without beds, and 345,392 square feet of medical office buildings. Table 4.2-15, Phase I, Phase IIa, and Phase IIb (2030) Estimated Maximum Daily Operational Emissions, presents the maximum daily area source emissions, emergency generators, and vehicle source emissions after construction completion through Phase IIb of the project (includes Phase I and Phase IIa). The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix B. Emissions estimated from the baseline emissions in Year 2014 (refer to Table 4.2-13) are compared to the emissions scenario for Phase IIb of the project (Year 2030) scenario to illustrate the net change in emissions associated with the project's operations at the completion of Phase IIb of the project, including modifications associated with Phase I and Phase IIa.

Table 4.2-15
Phase I, Phase IIa, and Phase IIb (2030) Estimated Maximum Daily Operational Emissions (pounds/day unmitigated)

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area source emissions	45.83	48.24	40.64	0.29	3.67	3.67
Emergency generators[a]	2.24	42.57	24.27	0.05	1.40	1.37
Vehicular source emissions	52.23	128.76	554.68	2.43	178.19	49.96
Combined total emissions	100.30	219.57	619.59	2.77	183.26	55.00

Table 4.2-15
Phase I, Phase IIa, and Phase IIb (2030) Estimated Maximum Daily Operational Emissions (pounds/day unmitigated)

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Baseline emissions[b]	83.88	238.07	703.28	1.51	107.23	31.78
Net change in emissions	16.52	(18.50)	(83.69)	1.26	76.03	23.22
Pollutant threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold exceeded?	No	No	No	No	No	No

Note: See Appendix B for detailed results.

[a] Each emergency generator unit would be tested for up to 1 hour each week. Assume that no more than two generators would be tested on a single day.

[b] Baseline emissions include Building P (medical office building), which is currently under construction. Parking structures were not included in operational emissions calculations because parking structures do not generate vehicle trips or other sources of air pollutants. The motor vehicles utilizing the parking structures and their associated emissions have already been captured from the development on site.

As shown in Table 4.2-15, the net change in combined daily area and vehicular source emissions would not exceed the SCAQMD operational thresholds for VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$. While the project would increase the number of patients, visitors, and physicians/staff and the square footage of buildings relative to existing conditions, the emissions of several air pollutants would decrease over the next 16 years. This reduction would occur, in part, because more stringent motor vehicle emission standards would reduce total emissions as older, high-emitting vehicles are replaced with newer, cleaner vehicles. Other sources of VOC emissions, however, such as consumer products and architectural coatings for building maintenance, would increase because the estimated emissions from these sources are a function of building area, which would increase. Overall, however, the net change indicates a reduction in emissions of some pollutants because motor vehicle emissions dominate and per vehicle trip emissions will decrease over time due to fleet turnover and various regulations compared to current levels; therefore, impacts would be considered **less than significant** for the combined Phase I, Phase IIa, and Phase IIb operational emissions.

Phase IIc

Buildout of Phase IIc of the project will be prior to 2043. Total licensed beds on the RCH campus would remain at 600 beds. However, at this time, there is no specified use selected for Phase IIc of the project. It is expected that Phase IIc would include construction of ancillary services as necessary and construction of surface or structure parking as needed to support growth.

Long-range development as part of Phase IIc of the project could include future acute care expansions, parking structures, or other ancillary uses. Please see the construction emissions analysis for Phase IIc for a list of potential Phase IIc uses.

As previously mentioned, with the exception of hotel facilities, as potential Phase IIc uses, acute care services, central utility plants, medical office buildings and clinics, outpatient services building, education centers, dental clinics, imaging centers, pharmacies, wellness centers, physical therapy or rehabilitation centers, community centers, optometry services, and medical retail facilities would likely result in net operational emissions similar to those from buildout of Phase I or Phase IIb of the project as compared to the baseline scenarios because similar energy-efficient technologies would be used and the scale and massing of these uses would likely be less than those of a hospital bed tower. The proposed hotel would serve families visiting long-term patients at the hospital, thus reducing the trips from off-site hotels to and from the RCH site. Parking structures would not generate additional operational emissions because parking structures do not generate vehicle trips or other sources of air pollutants. The motor vehicles utilizing the parking structures and their associated emissions would be captured from the development on site.

The project has not yet been defined for Phase IIc; therefore, operational emissions for Phase IIc must be reviewed and assessed in a subsequent analysis. To verify that air quality impacts would not exceed the SCAQMD thresholds, mitigation measure **MM AQ-2** (see Section 4.2.5), which calls for the preparation of a site-specific air quality technical report, would need to be incorporated.

Because it is unknown whether implementation of **MM AQ-2** would result in less than significant impacts for Phase IIc, impacts to the air quality standards from Phase IIc would be **potentially significant** and unavoidable.

Threshold: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

In considering cumulative impacts from the project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SCAB is designated as nonattainment for the CAAQS and NAAQS. A project would be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact). If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution to nonattainment status in the SCAB. If a project does not exceed thresholds and is determined to have less than significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality. In this case, the basis for analyzing the project's cumulative considerable contribution is its consistency with the AQMP.

The SCAB has been designated as federal nonattainment area for O_3 and $PM_{2.5}$ and a state nonattainment area for O_3, NO_2, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions associated with construction generally result in near-field impacts. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the SCAB.

As discussed above, the NO_x emissions during Phase I and Phase IIa construction would be above the significance threshold, while Phase IIb construction emissions would be below the thresholds for all criteria pollutants. Construction activities required for the implementation of the project would be considered typical of a healthcare facility. Once construction of a phase is completed, construction-related emissions would cease for a period of time, meaning that construction emissions from the various phases of the project would not overlap with each other.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Moreover, air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM_{10} and $PM_{2.5}$ emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD. The maximum daily PM_{10} and $PM_{2.5}$ concentrations would not exceed thresholds during project construction activities, although fugitive dust and vehicle and equipment exhaust generated during project construction would contribute to the SCAB nonattainment designation for $PM_{2.5}$; however, this contribution would not be considered cumulatively considerable. The construction of the project would generate VOC and NO_x emissions; however, estimated NO_x emissions would exceed SCAQMD's emission-based significance threshold during Phase I and Phase IIa. Therefore, construction of the project would considerably contribute to the SCAB's O_3 nonattainment designation and impacts would be **significant**.

Operational emissions generated by Phase I, Phase IIa, and Phase IIb of the project would not result in a significant impact regarding VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ due to motor vehicles and area and stationary source emissions. In addition, the project is consistent with the underlying growth projections in the City's GP 2025 and consequently in the SCAQMD's 2012 AQMP. The project would not conflict with the SCAQMD 2012 AQMP, which addresses the cumulative emissions in the SCAB. However, given that the future conditions related to Phase IIc cannot be analyzed now and would require specific air quality analysis at the time specific projects are proposed, **MM AQ-3** (see Section 4.2.5) shall be incorporated to address this impact. Accordingly, for Phase IIc only, the project could result in a cumulatively considerable increase in emissions of nonattainment pollutants. Thus, this impact would be **significant** and unavoidable for the future condition of Phase IIc.

Threshold: Would the project expose sensitive receptors to substantial pollutant concentrations?

Localized Significance Thresholds Analysis

Sensitive receptors are those more susceptible to the effects of air pollution than are the population at large. The SCAQMD considers that sensitive receptors may include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest off-site sensitive receptors to the project site include several residential areas, one elementary school, and three childcare centers or preschools. Evans Sports Complex, which comprises the athletic fields for Riverside Community College, was not identified as a sensitive receptor for this analysis because the typical users (college students) are considered healthy adults. Newman Park, located at the southeast corner of Fourteenth Street and Magnolia Avenue, east of the hospital campus, is a passive small green space not highly used by children or the elderly, and was not considered a sensitive receptor. Much of the neighboring area consists of commercial and other nonresidential land uses. In addition, the hospital buildings that house patients for longer-term care (i.e., buildings with licensed beds) would be considered sensitive receptors by the SCAQMD (McMillan, pers. comm. 2013). The names of the off-site receptors, except for residential areas, and the direction from the hospital site are shown in Table 4.2-16, Sensitive Receptors.

Table 4.2-16
Sensitive Receptors

Name	Direction from Hospital
Grant Elementary School and Childcare Center	Northwest
Riverside Community College Daycare	Southeast
Eden Lutheran Preschool	Southwest
Calvary Presbyterian Church[a]	South

[a] As noted above, the Calvary Presbyterian Church would not be considered a sensitive receptor.

An LST analysis has been prepared to determine potential impacts to nearby sensitive receptors during construction. While the Calvary Presbyterian Church, located south of the project site boundary, is not considered a sensitive receptor, it was included as a nearby noncommercial receptor where children and the elderly are present.

As indicated in the discussion of the thresholds of significance, the SCAQMD also recommends the evaluation of localized NO_2, CO, PM_{10}, and $PM_{2.5}$ impacts as a result of construction activities to sensitive receptors in the immediate vicinity of the project site. The impacts were analyzed using methods consistent with those in the SCAQMD's *Final Localized Significance Threshold Methodology* (SCAQMD 2008). According to the LST Methodology, "Off-site mobile emissions from the project should NOT be included in the emissions compared to the LSTs"

(SCAQMD 2008). Hauling of soils and construction materials is not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways. Emissions from the haul trucks would be relatively brief in nature and would cease once the haul trucks pass through the main streets (Magnolia Avenue / Market Street and/or 14th Street) to State Route 91.

Ambient NO_2, CO, PM_{10}, and $PM_{2.5}$ concentrations due to the construction of Phase I and Phase IIb of the project[3] were analyzed using the American Meteorological Society/EPA Regulatory Model (AERMOD) air quality dispersion model (Lakes Environmental 2013), Version 12345. AERMOD is approved for use by the SCAQMD for the purposes of performing an LST analysis. Details of the LST analysis are described in Appendix B.

Table 4.2-17, LST Modeling Results – Phase I, and Table 4.22-18, LST Modeling Results – Phase IIb, show the maximum NO_2, CO, PM_{10}, and $PM_{2.5}$ concentrations associated with the project at hospital buildings, nearby residential areas, and other sensitive receptors. The maximally impacted residential receptors and sensitive receptor (Grant Elementary School and childcare center) are located directly northwest of the project site. Selected dispersion modeling results are included in Appendix B. Sensitive receptors for the dispersion modeling were selected based on the location of the construction area and the proximity of the receptors.

Table 4.2-17
LST Modeling Results – Phase I

Pollutant	Averaging Period	Modeled Impacts		LST Criteria		Exceeds Threshold?
		μg/m³	*ppm*	*μg/m³*	*ppm*	
Residential Receptors						
Nitrogen dioxide (NO_2)	1 hour	106	0.06	224	0.12	No
Carbon monoxide (CO)	1 hour	176	0.15	19,340	16.9	No
Carbon monoxide (CO)	8 hours	41	0.04	8,319	7.3	No
Respirable particulate matter (PM_{10})	24 hours	8.1	—	10.4	—	No
Fine particulate matter ($PM_{2.5}$)	24 hours	4.5	—	10.4	—	No
Hospital Receptors						
Nitrogen dioxide (NO_2)	1 hour	1,031	0.55	224	0.12	Yes
Carbon monoxide (CO)	1 hour	1,086	0.95	19,340	16.9	No
Carbon monoxide (CO)	8 hours	452	0.40	8,319	7.3	No
Respirable particulate matter (PM_{10})	24 hours	187.9	—	10.4	—	Yes
Fine particulate matter ($PM_{2.5}$)	24 hours	99.1	—	10.4	—	Yes

[3] Construction emissions associated with Phase I and Phase IIb were evaluated as representative scenarios for the LST analysis. Construction emissions associated with Phase IIa were not evaluated in the LST analysis. See Appendix B regarding selection of representative scenarios.

Table 4.2-17
LST Modeling Results – Phase I

Pollutant	Averaging Period	Modeled Impacts		LST Criteria		Exceeds Threshold?
		µg/m³	*ppm*	*µg/m³*	*ppm*	
Other Sensitive Receptors						
Nitrogen dioxide (NO_2)	1 hour	242	0.13	224	0.12	Yes
Carbon monoxide (CO)	1 hour	508	0.44	19,340	16.9	No
Carbon monoxide (CO)	8 hours	116	0.10	8,319	7.3	No
Respirable particulate matter (PM_{10})	24 hours	18.3	—	10.4	—	Yes
Fine particulate matter ($PM_{2.5}$)	24 hours	10.7	—	10.4	—	Yes

Table 4.2-18
LST Modeling Results – Phase IIb

Pollutant	Averaging Period	Modeled Impacts		LST Criteria		Exceeds Threshold?
		µg/m³	*ppm*	*µg/m³*	*ppm*	
Residential Receptors						
Nitrogen dioxide (NO_2)	1 hour	75	0.04	224	0.12	No
Carbon monoxide (CO)	1 hour	148	0.13	19,340	16.9	No
Carbon monoxide (CO)	8 hours	61	0.05	8,319	7.3	No
Respirable particulate matter (PM_{10})	24 hours	6.5	—	10.4	—	No
Fine particulate matter ($PM_{2.5}$)	24 hours	6.1	—	10.4	—	No
Hospital Receptors						
Nitrogen dioxide (NO_2)	1 hour	557	0.30	224	0.12	Yes
Carbon monoxide (CO)	1 hour	1,449	1.27	19,340	17	No
Carbon monoxide (CO)	8 hours	586	0.51	8,319	7	No
Respirable particulate matter (PM_{10})	24 hours	262.8	—	10.4	—	Yes
Fine particulate matter ($PM_{2.5}$)	24 hours	135.2	—	10.4	—	Yes
Other Sensitive Receptors						
Nitrogen dioxide (NO_2)	1 hour	84	0.04	224	0.12	No
Carbon monoxide (CO)	1 hour	302	0.26	19,340	16.9	No
Carbon monoxide (CO)	8 hours	28	0.02	8,319	7.3	No
Respirable particulate matter (PM_{10})	24 hours	11.8	—	10.4	—	Yes
Fine particulate matter ($PM_{2.5}$)	24 hours	3.4	—	10.4	—	No

As shown in Tables 4.2-17 and 4.2-18, the maximum 1-hour NO_2 and 24-hour PM_{10} and $PM_{2.5}$ modeled concentrations would exceed the threshold of significance established by SCAQMD at sensitive receptors in the vicinity of the project site. The 1- and 8-hour CO concentrations would not exceed the thresholds of significance. As noted in Footnote 3, construction impacts associated with Phase IIa were not analyzed. Based on the results for Phase I and Phase IIb, it is

conservatively assumed that there is a reasonable likelihood that the LSTs could be exceeded at one or more sensitive receptors.

The maximum NO_2, PM_{10}, and $PM_{2.5}$ impacts would result only if (1) the amount of construction activity (e.g., demolition activity or graded area, number and types of equipment, hours of operation) assumed in this analysis actually occurred and (2) the meteorological conditions in the data set used in the dispersion modeling analysis occurred in the vicinity of the project site on the worst-case construction day. As construction of the project is anticipated to result in an exceedance of the LSTs, the project would result in significant air quality impacts during the construction phase. Mitigation measure **MM AQ-3** (see Section 4.2.5), which would apply to all phases of the project, would also reduce these NO_2, PM_{10}, and $PM_{2.5}$ ambient air quality impacts but is not expected to reduce the impacts to less than significant. To minimize the localized air quality impacts to sensitive receptors during construction, the **MM AQ-3** shall be implemented.

The emissions of fugitive PM_{10} and $PM_{2.5}$ are based on estimates per CalEEMod and the assumed efficiency of dust management practices. The improvement resulting from the additional fugitive dust mitigation measures in **MM AQ-3** is uncertain because it is unknown how much better the dust control would be compared to compliance with Rule 403 and typical construction practices. Similarly, the effectiveness of the NO_x mitigation measures cannot be quantified using CalEEMod. The estimated emission rates per CalEEMod are based on a general fleet of construction equipment and trucks consisting of the typical fleet mix in the year being analyzed. The specific benefits of using lower-emitting equipment or the other NO_x mitigation measures cannot be determined because the CalEEMod fleet mix, particularly in distant future years, may already incorporate some lower-emitting units. Thus, even though mitigation measures will be incorporated, because the exact degree of the reduction in emissions cannot be quantified, the localized ambient air quality impacts during construction would be considered **significant** and unavoidable.

Carbon Monoxide Hotspots

Mobile source impacts occur basically on two scales of motion. Regionally, project-related travel will add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SCAB. Locally, project traffic will be added to the City of Riverside roadway system near the project area. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles “cold-started” and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing.

CO transport is extremely limited and disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors such as residents, school children, hospital patients, and the elderly. Typically, high CO concentrations are associated with roadways or intersections operating at an unacceptable level of service (LOS). Projects contributing to adverse traffic impacts may result in the formation of such CO hotspots. To verify that the project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hotspots was conducted. The project's Traffic Impact Analysis (Kimley-Horn 2014; see Appendix I) evaluated whether there would be a decrease in LOS (e.g., increased congestion) at the intersections affected by the project. The potential for CO hotspots was evaluated based on the results of the Traffic Impact Analysis. The California Department of Transportation (Caltrans) Institute of Transportation Studies Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) (UC Davis 1997) was followed.

In accordance with the CO Protocol, CO hotspots are typically evaluated when (1) the level of service (LOS) of an intersection or roadway decreases to LOS E or worse; (2) signalization and/or channelization is added to an intersection; and (3) sensitive receptors such as residences, schools, and hospitals are located in the vicinity of the affected intersection or roadway segment.

The project's Traffic Impact Analysis evaluated 15 intersections in the project study area to assess potential impacts resulting from the project. Under the existing conditions (2013), all study intersections would operate at LOS D or better during both peak periods based on the Highway Capacity Manual (TRB 2010) methodology, with the exception of the Brockton Avenue and the RCH Entrance intersection, which operates at LOS E in the PM peak hour.

Under existing plus Phase I conditions (see Section 4.10, Traffic, for a description of traffic analysis scenarios), with the addition of Phase I traffic, four intersections would operate at an unacceptable LOS and would result in a significant impact per the City's traffic significance criteria (see Section 4.10, Traffic). Mitigation measures have been incorporated into the project to reduce significant traffic impacts related to unacceptable LOS operation at intersections resulting from project-added traffic.

In order to account for other unforeseen cumulative projects and regional traffic growth, cumulative project information was obtained from the City of Riverside. The existing plus cumulative projects traffic volumes were obtained by adding the existing traffic volumes, plus an annual growth rate of 0.5% per year until the opening year (2014), plus cumulative projects traffic. Under the Year 2014 cumulative conditions plus Phase I analysis, with the addition of Phase I traffic along with other cumulative projects, four intersections would operate at an unacceptable LOS, resulting in a significant impact. The incorporation of mitigation would

reduce overall intersection delay and would improve PM peak hour to LOS C, thus reducing impacts at these four intersections.

Year 2035 cumulative conditions peak hour traffic forecasts were developed using forecast volumes from the Riverside Traffic Analysis Model for Base Year 2007 and Buildout Year 2035. Phase IIa, IIb, and IIc traffic volumes were added to obtain the Year 2035 cumulative conditions with Phase IIa, IIb, and IIc volumes. The intersection analysis for Year 2035 cumulative conditions plus Phase IIa, IIb, and IIc peak hour intersection operations projected that three intersections would operate at an unacceptable LOS.

Mitigation measures (**MM TRA-1** through **MM TRA-8**; see Section 4.10.6) would be incorporated to reduce potential project-generated impacts during Phases I, IIa, IIb, and IIc.

Implementation of mitigation measures **MM TRA-1** through **MM TRA-8** is anticipated to reduce potential project-generated traffic impacts where the LOS of an intersection was forecasted to decrease to LOS E or worse as a result of the project under existing plus Phase I conditions, Year 2014 cumulative conditions plus Phase I conditions, and Year 2035 cumulative conditions plus Phase IIa, IIb, and IIc conditions. Per the Caltrans CO Protocol, a CO hotspot analysis would not be required for project study intersections and potential impacts related to high levels of CO concentrations are not anticipated.

In addition to the findings related to the project's impacts on traffic at affected intersections, the background CO levels in the area are less than 20% of the 1- and 8-hour CAAQS (see Table 4.2-3) and would be expected to improve further due to reductions in motor vehicle emissions. Based on this assessment, the project would result in a **less than significant** impact to sensitive receptors with regard to potential CO hotspots resulting from its contribution to cumulative traffic-related air quality impacts; therefore, mitigation would not be required.

Health Impacts of Criteria Air Pollutants

Construction

As indicated previously, the NO_x emissions during construction would exceed the SCAQMD significance threshold; all other criteria pollutants were found to be less than significant. It should be noted that much of the NO_x emitted during construction activities is associated with haul truck trips for export of excavated soil. Thus, these emissions would be distributed over the haul truck route and would not occur in the local area, where they could contribute to local impacts on ambient air quality. While the significance threshold is not intended to predict whether a corresponding increase in a specific ambient air quality impact or related health impact would occur (i.e., emissions exceeding a significance threshold do not necessarily result in changes in ambient concentrations of air pollutants), they do suggest that existing poor air

quality conditions and related health effects could be exacerbated when a significance threshold is exceeded.

In addition to contributing to ambient concentrations of NO_2, NO_x is a precursor to O_3, for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. Thus, existing O_3 levels in the SCAB are at unhealthy levels during certain periods. The health effects associated with O_3, as discussed under Pollutants and Effects in Section 4.2.1, are generally associated with reduced lung function. The contribution of NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCAB due to O_3 precursor emissions tend to be found downwind from the source location because it takes time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the NO_x emissions would occur because exceedances of the O_3 ambient air quality standards tend to occur between April and October, when solar radiation is highest. The effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, NO_x emissions associated with project construction could contribute to increased regional O_3 concentrations and associated health impacts.

According to the LST analysis, the construction of the project could cause or contribute to exceedances of the NAAQS and CAAQS for NO_2, PM_{10}, and $PM_{2.5}$ at sensitive receptors, including residences, schools, and the portions of the hospital that house patients. As described in Pollutants and Effects in Section 4.2.1, NO_2 health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. Through potential reductions in PM_{10} and $PM_{2.5}$ related to fugitive dust control and potential reductions in NO_x emissions from construction equipment, application of mitigation measures (e.g., **MM AQ-3**; see Section 4.2.5) would help to mitigate, but not eliminate, this impact by reducing emissions of NO_x and fugitive dust. The highest impacts for these air pollutants would occur at the hospital due to its proximity to the construction areas. The hospital would take precautionary measures to protect its patients and staff. Such measures may include requesting the contractor to institute more frequent watering of disturbed areas to further reduce fugitive dust, installing construction filter media on the air intake side of the air handler units to supplement existing HEPA filters, and inspecting or replacing HEPA filters more frequently. Based on the results of the LST analysis, residential receptors are not anticipated to be exposed to levels of NO_2, PM_{10}, and $PM_{2.5}$ exceeding the LSTs during any construction phase; thus, no increases in health impacts at residences in the vicinity of RCH are anticipated during any construction phase. The Grant Elementary School and childcare center would be potentially exposed to elevated concentrations of NO_2, PM_{10}, and $PM_{2.5}$ during construction of Phase I and to elevated concentrations of PM_{10} during construction of Phase IIb. Thus, students and staff at these facilities could experience an increase in the health effects related to NO_2 (as discussed above) and to PM_{10} and $PM_{2.5}$. As discussed in Pollutants

and Effects in Section 4.2.1, exposure to PM_{10} and $PM_{2.5}$ may result in health effects including an increase in the number and severity of asthma attacks, aggravated bronchitis and other lung diseases, and a reduction in the body's ability to fight infections. Providing advance notice to the school during days that would result in elevated PM_{10} and $PM_{2.5}$ emissions, such as demolition or grading, would allow students and staff to remain indoors during these activities. Thus, the related health effects would be avoided to a large extent.

Operation

The net change in operational emissions between the baseline conditions and implementation of Phase I (2017) would not result in emissions of VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ that would exceed the SCAQMD emissions-based thresholds. Similarly, the net change between the baseline conditions and RCH operation after Phase IIb implementation would not result in a net change in emissions that would exceed the SCAQMD operational thresholds. Although project-generated operational emissions would not exceed SCAQMD thresholds when compared to baseline conditions, the project would result in an increase in criteria air pollutant emissions that would contribute to regional air pollutant concentrations and potential related adverse health effects. Project-generated VOC and NO_x emissions would contribute to regional O_3 concentrations and its associated health effects, such as breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. However, given the less than significant increase in VOC and NO_x emissions and the expected reduction in future ambient O_3 levels due to SCAQMD and other control measures, these health effects as a result of the project are less likely to occur. In addition to O_3, project-generated NO_x emissions could contribute to potential exceedances of the NAAQS and CAAQS for NO_2. As shown in Table 4.2-3, the existing NO_2 concentrations are well below the NAAQS and CAAQS and are likely to continue to decrease due to SCAQMD efforts to reduce O_3. Thus, it is not expected that the project's operational NO_x emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects.

CO tends to be a localized impact associated primarily with congested intersections. The associated CO hotspots were discussed previously as a less than significant impact. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant. Ambient SO_2 concentrations are at very low levels relative to the NAAQS and CAAQS, and the project would contribute small amounts of SO_x emissions, which are primarily in the form of SO_2; thus, the project would not result in adverse health impacts related to SO_2.

Project-generated emissions of PM_{10} and $PM_{2.5}$ would contribute to the SCAB's nonattainment designation for state PM_{10} and $PM_{2.5}$ standards and federal $PM_{2.5}$ standards. As described in Pollutants and Effects in Section 4.2.1, $PM_{2.5}$ and PM_{10} emissions can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. The net change in PM_{10} and $PM_{2.5}$ emissions relative to

baseline conditions is well below the SCAQMD significance levels. Furthermore, the project-related operational PM_{10} and $PM_{2.5}$ emissions are primarily caused by motor vehicles (exhaust and fugitive paved road dust), which would be dispersed throughout the hospital's service area rather than concentrated at the project site. Thus, the PM_{10} and $PM_{2.5}$ operational emissions are not expected to cause local increases in health effects due to these pollutants.

Toxic Air Contaminants

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or hazardous air pollutants. TACs are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program, and is aimed at hazardous air pollutants that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and is adopting appropriate control measures for sources of these TACs. As examples, TACs include acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexa-valent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter. Some of the TACs are groups of compounds that contain many individual substances (for example, copper compounds and polycyclic organic matter).

The greatest potential for TAC emissions during construction would be diesel particulate emissions from heavy equipment operations and heavy-duty trucks and the associated health impacts to sensitive receptors. The closest sensitive receptors are the hospital uses on site. There are several schools, childcare centers/preschools, and parks located in the vicinity of the project site, in addition to residences. The nearest residences (located adjacent to 14th Street, west of Brockton Avenue) would be approximately 435 feet from the nearest construction area (Phase I hospital bed tower). The nearest school (Grant Elementary School, which also houses a childcare center) would be approximately 285 feet from the construction area (Phase I hospital bed tower). The childcare center at Riverside Community College on Magnolia Avenue and 15th Street would be approximately 560 feet from the construction area (Phase IIc). A small park (Newman Park) is located at the southeast corner of Magnolia Avenue and 14th Street, approximately 190 feet from the nearest construction point (Phase IIa). Evans Sports Complex is located south of the Calvary Presbyterian Church, approximately 450 feet away from the location of Phase IIc construction.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SCAQMD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 70-year lifetime will contract cancer based on the use of standard risk-assessment methodology. The project would require the use of heavy-duty construction

equipment, which is subject to a CARB ATCM for in-use diesel construction equipment to reduce diesel particulate emissions, and it would involve use of diesel trucks (which are also subject to a CARB ATCM) for hauling demolition debris and soil and delivering concrete and building materials. In the future phases (later portions of Phase IIa and Phases IIb and IIc), much of the equipment will be equipped with Tier 4 engines, which are equipped with diesel particulate filters that reduce the engine emissions by 85% or more. Similarly, all 2007 and later model year heavy-duty trucks are equipped with diesel particulate filters. Thus, the emissions of diesel particulate matter from construction equipment and trucks will be substantially lower that current models, which would reduce their contribution to the long-term health effects associated with construction of any phase of the project. Accordingly, the impacts due to TAC emissions would be **less than significant**.

The replacement boilers and emergency generators would be subject to permitting by the SCAQMD. As part of the permit process, the SCAQMD will evaluate compliance with Rule 1401, New Source Review of Toxic Air Contaminants. Rule 1401 establishes acceptable risk levels and emission control requirements for new and modified facilities that may emit additional TACs. Under Rule 1401, permits to operate may not be issued when emissions of TACs result in a maximum incremental cancer risk greater than 1 in 1 million without application of best available control technology for toxics (T-BACT), or a maximum incremental cancer risk greater than 10 in 1 million with application of T-BACT, or a health hazard index (chronic and acute) greater than 1.0 (SCAQMD 2010). The human health risk analysis is based on the time, duration, and exposures expected. T-BACT will be determined on a case-by-case basis; however, examples of T-BACT include diesel particulate filters for stationary engines and oxidation catalysts for natural gas-fired boilers. The emergency generators would be operated for a limited time, would meet the required emission rates for diesel particulate matter at the time of installation, and must be demonstrated to meet the requirements of Rule 1401 before the SCAQMD can issue the permits to construct. The boilers will be fueled with natural gas, which generally results in low TAC emissions and associated health effects, which must be demonstrated before the SCAQMD can issue the permits to construct. In addition, the TAC emissions from the replacement boilers would offset by the removal of older, less efficient boilers. As such, the exposure of sensitive receptors to project-related TAC emission impacts during operation of the project would be **less than significant**.

The project would emit criteria air pollutants and TACs that could expose sensitive receptors to substantial pollutant concentrations. The LST analysis summarized above addresses the potential impacts during construction and includes a discussion of the potential health effects due to NO_2, PM_{10}, $PM_{2.5}$, and TACs. The LST analysis concluded that the impacts of construction emissions of NO_2, PM_{10}, and $PM_{2.5}$ would be **significant** and unavoidable. The LST analysis found that impacts on sensitive receptors due to TACs during construction would be **less than significant**. Additionally, the LST analysis found that the increase in the

operational air pollutant emissions associated with the project and corresponding health impacts to sensitive receptors would be **less than significant**. The emissions of TACs from new stationary sources associated with the project would be subject to SCAQMD rules and review that would ensure that impacts would be less than the health impact thresholds; thus, the impact of TACs from operation of the project would be **less than significant**. Therefore, since the project would have short-term (construction) LST impacts from NO_2, PM_{10}, and $PM_{2.5}$, the project would have **significant** effects related to exposure of sensitive receptors. Mitigation measure **MM AQ-3** (see Section 4.2.5) will be incorporated, which will reduce emissions of NO_2, PM_{10}, and $PM_{2.5}$.

Threshold: Would the project create objectionable odors affecting a substantial number of people?

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and to architectural coatings. Such odors are temporary and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered **less than significant**.

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project entails a hospital construction and would not result in the creation of a land use that is commonly associated with odors. Therefore, project operations would result in an odor impact that is **less than significant**.

4.2.5 Mitigation Measures

CEQA Guidelines Section 15126.4 requires EIRs to describe feasible measures that can minimize significant adverse impacts. The following mitigation measures have been evaluated for feasibility and are incorporated in order to reduce potentially significant impacts related to air quality emissions.

MM AQ-1 The following measures shall be adhered to during project grading and construction to reduce oxides of nitrogen (NO_x) from construction equipment for all phases of the project:

a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 2 or better diesel engines.

b. The engine size of construction equipment shall be the minimum size.

c. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time.

d. Construction equipment shall be maintained in tune per the manufacturer's specifications.

e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower.

f. Electric equipment shall be utilized in lieu of diesel-powered equipment, where feasible.

MM AQ-2 During the environmental review process for future discretionary permits for Phase IIc of the Riverside Community Hospital Expansion Project, an air quality technical report that includes project construction phasing, timing and operational details shall be analyzed using the current air quality model available from the South Coast Air Quality Management District (SCAQMD). Project emissions shall be modeled and then evaluated based on current SCAQMD thresholds. The technical analysis for Phase IIc shall be prepared to analyze construction and operational emissions.

If air quality impacts are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated to reduce impacts. Examples of standard construction mitigation measures include the following:

Consistent with SCAQMD Rule 403, it is required that fugitive dust generated by grading and construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures listed below:

a. During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour.

c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

d. Speeds on unpaved roads shall be reduced to less than 15 miles per hour.

e. All grading and excavation operations shall be halted when wind speeds exceed 25 miles per hour.

f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and/or washed at the end of each workday.

g. If import/export of soil materials would be required, all trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered and/or a minimum 2 feet of freeboard shall be maintained.

h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by the SCAQMD).

i. Any additional requirements of SCAQMD Rule 403 shall be reviewed and complied with.

The following measures shall be adhered to during project grading and construction to reduce emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) from construction equipment:

a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 4 or better diesel engines.

b. The engine size of construction equipment shall be the minimum size.

c. The amount of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest amount of equipment is operating at any one time.

d. Construction equipment shall be maintained in tune per the manufacturer's specifications.

e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower.

f. Electric equipment shall be utilized in lieu of diesel-powered equipment, where feasible.

g. RCH shall use zero-VOC-content architectural coatings during project construction/application of paints and other architectural coatings to reduce ozone precursors. If zero-VOC paint cannot be utilized, the developer shall avoid application of architectural coatings during the peak smog season: July,

August, and September. RCH shall procure architectural coatings from a supplier in compliance with the requirements of SCAQMD's Rule 1113 (Architectural Coatings).

If air quality impacts for operational emissions for Phase IIc are determined to be significant, feasible and appropriate project-specific mitigation measures shall be incorporated to reduce impacts. Examples of standard operational mitigation measures include the following: reduce trips in passenger vehicles by patients, visitors, or physicians/staff; enhance transportation management demand programs; and reduce energy usage.

MM AQ-3 During construction of all phases of the project, the following mitigation measures shall be incorporated to reduce impacts resulting from the exceedance of the South Coast Air Management District (SCAQMD) localized significance thresholds.

Consistent with SCAQMD Rule 403, it is required that fugitive dust generated by grading and construction activities be kept to a minimum with a goal of retaining dust on the site, by following the dust control measures listed below:

a. During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas later in the morning, after work is completed for the day, and whenever winds exceed 15 miles per hour.

c. Soil stockpiled for more than 2 days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

d. Speeds on unpaved roads shall be reduced to less than 15 miles per hour.

e. All grading and excavation operations shall be halted when wind speeds exceed 25 miles per hour.

f. Dirt and debris spilled onto paved surfaces at the project site and on the adjacent roadways shall be swept, vacuumed, and/or washed at the end of each workday.

g. If import/export of soil materials would be required, all trucks hauling dirt, sand, soil, or other loose material to and from the construction site shall be covered and/or a minimum 2 feet of freeboard shall be maintained.

h. At a minimum, at each vehicle egress from the project site to a paved public road, a pad consisting of washed gravel (minimum size: 1 inch) shall be installed and maintained in clean condition to a depth of at least 6 inches and extending at least 30 feet wide and at least 50 feet long (or as otherwise directed by SCAQMD).

i. Any additional requirements of SCAQMD Rule 403 shall be reviewed and complied with.

j. The construction contractor or Riverside Community Hospital representative shall notify sensitive receptors when building demolition and grading activities would occur so that sensitive residents could be kept indoors or other accommodations made for their comfort. The construction contractor shall post readily visible signage in publicly accessible areas along the property lines of the Riverside Community Hospital with a contact name and telephone number in the event that project construction would generate nuisance levels of air pollutants in the surrounding community. Action shall be taken within 4 hours after notification to determine the cause of the objectionable emissions and take corrective action.

The following measures shall be adhered to during project grading and construction to reduce emissions of oxides of nitrogen (NO_x) from construction equipment:

a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 3 or better diesel engines.
b. The engine size of construction equipment shall be the minimum size.
c. The amount of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest amount of equipment is operating at any one time.
d. Construction equipment shall be maintained in tune per the manufacturer's specifications.
e. Catalytic converters shall be installed on gasoline-powered equipment over 50 horsepower.
f. Electric equipment shall be utilized in lieu of diesel-powered equipment, where feasible.

4.2.6 Environmental Impacts After Mitigation Is Incorporated

The analysis above and as presented in Appendix B concludes that the daily construction emissions would not exceed the City's significance thresholds for VOC, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction in any of the construction years. The project, however, would exceed daily construction emissions thresholds for NO_x, even with implementation of **MM AQ-1**, thus resulting in a significant air quality impact from construction emissions.

The LST analysis for construction impacts found that local ambient air quality impacts would exceed the LSTs for NO_2, PM_{10}, and $PM_{2.5}$ at sensitive receptors at the hospital and off site, resulting in a significant air quality impact. Because the effectiveness of mitigation measure **MM AQ-3**, which requires additional control of fugitive dust and construction equipment NO_x emissions, cannot be quantified, impacts to local ambient air quality would remain potentially significant and unavoidable.

Project-generated construction impacts associated with exceedance of SCAQMD maximum daily thresholds for NO_x and exceedance of LSTs for NO_2, PM_{10}, and $PM_{2.5}$ would remain significant even with incorporation of **MM AQ-1** and **MM AQ-3**, respectively.

The net change in operational emissions was found to be less than significant for Phases I, IIa, and IIb. However, since Phase IIc is so far in the future, exact and specific characteristics of that phase are too speculative to analyze at this time. The project has not yet been defined for Phase IIc; therefore, construction and operational emissions for Phase IIc must be reviewed and assessed in a subsequent analysis. To verify that air quality impacts would not exceed the SCAQMD thresholds, mitigation measure **MM AQ-2** calls for a site-specific air quality technical report to be prepared for Phase IIc during the planning stage. Because it is not certain that implementation of **MM AQ-2** would result in less than significant impacts, operational impacts to air quality from Phase IIc of the project would be potentially significant and unavoidable.

Therefore, the project would result in significant and unavoidable impacts related to short-term construction impacts, localized construction impacts, and long-term, operational impacts from Phase IIc of the project. Because of these impacts, a Statement of Overriding Considerations is required.

4.2.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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4.3 BIOLOGICAL RESOURCES

The focus of the following discussion and analysis, based on the initial study (IS) (Appendix A), and comments received during the Notice of Preparation public comment period, focuses on the potentially adverse impacts to candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS), resulting from implementation of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project). The IS concluded that potential impacts related to riparian habitat, wetlands, movement of any native resident or migratory fish or wildlife species, conflict with a tree preservation policy or ordinance, and conflicts with an adopted or approved local, regional, or state conservation plan were found to be either less than significant or had no impact and are therefore not discussed further in this Draft Environmental Impact Report (EIR). In addition to other documents, the following references were used in the preparation of this section of the EIR:

- Dudek, 2013, *Biological Survey Memorandum* (Appendix C).

4.3.1 Setting

The approximately 22.5-acre project site is located within the downtown area of the City of Riverside (City) and is surrounded by existing urban developed land uses. Surrounding land uses include residential development to the northwest, Riverside Community Players, Grant Elementary School and a gas station to the north, muffler services to the northeast, Newman Park and Community Medical Group of Riverside to the east, Riverside Community College to the southeast, Calvary Presbyterian Church, Evans Sports Complex, and residential uses to the south, and commercial and industrial uses to the west. Generally, the site has relatively mild to moderate slopes of less than 5% with the exception of a roughly 30-foot grade difference near the center of the site. The 30-foot grade difference splits the hospital campus into two geographic areas: upper and lower hospital campus. The upper hospital campus consists of Buildings A, B, C, D, E, F, G, H, and I, and the lower hospital campus consist of Buildings J, K, L, M, N, O, P, and Q. The elevation of the study area ranges from 780–830 feet above mean sea level. Several soil types are mapped within project study area. Soils within the study area include Arlington fine sandy loam, Arlington loam, Chino silt loam, Hanford coarse sandy loam, and Terrace escarpments (NRCS 2013). However, soils within the study area are compacted throughout and urbanized.

Existing Conditions

The biological study area (i.e., the project site limits and a 500-foot buffer area) contains urban park space, ornamental landscaping, and disturbed land (ruderal) covers. Refer to Attachment A of Appendix C for representative photographs of the land covers as observed within the study area. Developed areas dominate the study area and include impervious

surfaces and ornamental landscaping. Within the study area, developed areas consist of roadways, sidewalks, driveways and parking areas, loading docks, retail businesses, residences, churches, medical facilities, and urban park space.

Ornamental vegetation is present within the majority of the study area. Ornamental plant species observed to be common include, though not limited to: Italian cypress (*Cupressus sempervirens*), lemon-scented gum tree (*Eucalyptus citriodora*), fig tree (*Ficus microcarpa*), jacaranda (*Jacaranda mimosifolia*), crape myrtle (*Lagerstroemia indica*), white mulberry (*Morus alba*), Canary Island date palm (*Phoenix canariensis*), Canary Island pine (*Pinus canariensis*), Aleppo pine (*Pinus halepensis*), Italian stone pine (*Pinus pinea*), fern pine (*Podocarpus gracilior*), Peruvian pepper-tree (*Schinus molle*), Mexican fan palm (*Washingtonia robusta*), and turf grasses.

Disturbed land (ruderal) includes dirt areas (e.g., abandoned parkways, side lots) that have been or are currently subject to intensive disturbance; these areas preclude any natural community. Plant species occurring in disturbed areas are typically opportunistic, invasive species. Such species are adapted to rapid colonization of soils that have been recently exposed or compacted, amended, or otherwise greatly altered. Open areas on the project site exhibit fairly high to very high degrees of past disturbance. The most extensive disturbed land area within the study area (outside the project site) is a vacant lot on the northwestern corner of Brockton Avenue and Tequesquite Avenue; the lot is largely bare dirt or overgrown. Plant species found in these areas include a moderate variety of disturbance-adapted species, such as wild oat (*Avena fatua*), common horseweed (*Conyza canadensis*), telegraph weed (*Heterotheca grandiflora*), prickly lettuce (*Lactuca serriola*), cheeseweed (*Malva parviflora*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), Russian-thistle (*Salsola tragus*), and common sow thistle (*Sonchus oleraceus*).

Overall wildlife abundance and species richness appear to be low because of the urbanized nature of the study area. However, 12 species of birds were observed during the site visit: mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), western kingbird (*Tyrannus verticalis*), northing mockingbird (*Mimus polyglottos*), white-throated swift (*Aeronautes saxatalis*), red-tailed hawk (*Buteo jamaicensis*), lesser goldfinch (*Carduelis pinus*), Anna's hummingbird (*Calypte anna*), and European starling (*Sturnus vulgaris*). No nests or nesting behavior was observed during the site visit; however, although no nesting birds were observed, the habitat is suitable and any of the species listed above, or other common species, could nest within the project site. Two mammal species were observed during the site visit: California ground squirrel (*Otospermophilus beecheyi*) and domestic cat (*Felis catus*). All of these are common, widespread species and strongly adapted to human-altered landscapes with intensive use.

A trapezoidal channel with concrete bottom, approximately 10 feet wide at the top of the banks, was observed east of Magnolia Avenue within the 500-foot buffer area in the study area, but not within the project site boundaries. The channel undergrounds at Magnolia Avenue and does not daylight within the project area. The location of the channel corresponds to the location of a broken blue-line stream observed on the Riverside West 7.5-minute U.S. Geological Survey quadrangle (USGS 1967). Refer to Attachment A of Appendix C for a representational photograph of the channel as observed within the study area. No changes or impacts to this drainage feature are proposed as part of the project.

Multiple Species Habitat Conservation Plan

The project site is located within the Cities of Riverside/Norco Area Plan of the Multiple Species Habitat Conservation Plan (MSHCP). However, the project site is not within any MSHCP criteria cells (RTMLA 2003). The project site is approximately 2,000 feet east of the Criteria Cell 443, which is a part of Existing Core A of the MSHCP. The biological goal of the MSHCP is to conserve certain plant, bird, mammal, and amphibian species and their habitats, as well as to maintain biological diversity while allowing for future economic growth within a rapidly urbanizing region. The City adopted the MSHCP on September 23, 2003 (City of Riverside 2003), and the federal and state wildlife agencies approved permits to implement the MSHCP on June 22, 2004. The project site is not within any additional survey areas as defined in section 6.3.2 of the MSHCP or within any Narrow Endemic Plant Species Survey Areas as defined in section 6.1.3 of the MSHCP; therefore, the project is not subject to any habitat assessment or survey requirements of the MSHCP. There are no riparian/riverine or vernal pool habitats present and the project site is not adjacent to any conservation areas. The project will participate in the MSHCP through the payment of the Local Development Mitigation Fee at the time building permits are issued pursuant to provisions of Ordinance No. 6709.

Related Regulations

Federal

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) and subsequent amendments, provide for the conservation of endangered and threatened species and the habitats on which they depend. A federally endangered species is one facing extinction throughout all or a significant portion of its geographical range. A federally threatened species is one likely to become endangered within the foreseeable future throughout all or a significant portion of its range. The presence of any federally threatened or endangered species on a site generally imposes severe constraints on development; particularly if development would result

in a take of the species or its habitat. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm in this sense can include any disturbance to habitats used by the species during any portion of its life history. The project will avoid known occurrences of listed plants and habitat for listed wildlife species or otherwise mitigate potential impacts to these species.

Migratory Bird Treaty Act

According to the Migratory Bird Treaty Act (MBTA) administered by the USFWS, the removal of active nests, eggs, or nestlings is unlawful. A violation of the MBTA may occur on, but is not limited to, projects that involve clearing or grubbing of migratory bird nest habitat during the nesting season, and demolition or reconstruction where bird nests are present. This time period is especially important due to the heightened presence of eggs or young that are essential to the survival of the species. The project will comply with the MBTA and Fish and Game Code by limiting the period in which construction will take place and recommending that a nesting bird survey be completed if habitat removal is proposed during the nesting season.

State

California Endangered Species Act

California (Fish and Game Code Section 2050 et seq.) establishes that it is the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The California Endangered Species Act (CESA) mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. CESA requires state lead agencies to consult with the CDFW during the California Environmental Quality Act (CEQA) process to avoid jeopardy to threatened or endangered species. CESA prohibits any person from taking or attempting to take a species listed as endangered or threatened (Fish and Game Code Section 2080). Section 2080 of the Fish and Game Code provides the permitting structure for CESA. The take of a state-listed endangered or threatened species or candidate species will require incidental take permits as authorized by the CDFW.

The project, however, is not expected to require such authorizations since it is not expected to result in take of a listed species. The project will avoid known occurrences of listed plants and habitat for listed wildlife species or otherwise mitigate potential impacts to these species.

Local

City of Riverside General Plan 2025

There are no City of Riverside General Plan 2025 (City of Riverside 2007) objectives and policies related to biological resources applicable to the project.

4.3.2 Thresholds of Significance

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS and Appendix G, the project could have a significant impact on biological resources if the project would:

> 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[1] or U.S. Fish and Wildlife Service.

4.3.3 Project Elements That Can Reduce Impacts

There are no project design features or elements that will reduce impacts to biological resources.

4.3.4 Environmental Impacts Before Mitigation

Threshold: Would the project 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?

The following discussion is provided to document the biological resources present at the project site and a 500-foot buffer (study area) (refer to Figure 1 of Appendix C), and provide recommendations for avoidance of impacts to resources, if present. Dudek biologist Ryan Gilmore conducted a site visit on May 10, 2013, between 9:00 a.m. and 10:30 a.m. During the site visit, temperatures ranged from 69 to 75 degrees Fahrenheit, winds ranged from 1 to 3 miles per hour, skies were clear, and visibility was good. The site visit focused included habitat assessments for special-status species.

[1] As of January 2013, the California Department of Fish and Game (CDFG) officially changed its name to the California Department of Fish and Wildlife. In this document, all references to the department before 2013 use CDFG, whereas references postdating the official name change use the current name, CDFW.

Project- and Program-Level Elements

Phases I, IIa, IIb, and IIc all have the same potential to impact species subject to the codes referenced above. The existing and future ornamental landscaping, including mature trees, throughout the project site have the potential to provide nesting habitat for birds. Common native urban bird species that may nest in ornamental landscaping include lesser goldfinch, Brewer's blackbird (*Euphagus cyanocephalus*), northern mockingbird, common raven, American crow, Anna's hummingbird, house finch, and hooded oriole (*Icterus cucullatus*). In addition, there is reasonable potential for existing and future buildings to support nesting opportunities for native birds that are common in urbanized areas, such as American kestrel (*Falco sparverius*), house finch, black phoebe (*Sayornis nigricans*), cliff swallow (*Petrochelidon pyrrhonota*), northern rough-winged swallow (*Stelgidopteryx serripennis*), and white-throated swift (*Aeronautes saxatalis*). A few species, primarily killdeer (*Charadrius vociferus*), may choose to nest on bare ground within the project site and study area.

As a result of the biological evaluation conducted on the site (Appendix C), there were no species identified as a candidate, sensitive, or special-status species identified on the project. The native trees that occur in the parking lot areas may support nests used by birds protected under MBTA of 1918 or the Fish and Game Code, as discussed previously. Thus, the potential exists for direct and indirect construction-related disturbance for nesting birds. While there is no established protocol for nest avoidance, the CDFW generally recommends avoidance buffers of about 500 feet for birds of prey and 100 to 300 feet for song birds.

Therefore, based on the review of biological resources on the project site and in the surrounding area, and implementation of the Mitigation Measure **MM BIO-1** requiring nesting bird surveys during all project phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) prior to ground-disturbing activities, impacts to biological resources would be **less than significant with mitigation incorporated**.

4.3.5 Mitigation Measures

CEQA Guidelines Section 15126.4 requires EIRs to describe feasible measures that can minimize significant adverse impacts. The following mitigation measure has been evaluated for feasibility and is incorporated in order to reduce potentially significant impacts related to nesting birds on site.

MM BIO-1 In order to avoid potential impacts to nesting birds in conformance with the Migratory Bird Treaty Act and California Fish and Game Code during all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of the project, a qualified biologist will conduct a nesting bird survey within 1 week prior to ground-disturbance activities. Avoidance will involve the period from approximately February 1 to

August 31, which covers the breeding season for most birds that may occur in the project area. The survey shall consist of full coverage of the proposed disturbance footprint as well a 300-foot buffer. If no active nests are found, no additional measures are required. If active nests are found, the nest locations shall be mapped by the biologist using Global Positioning System (GPS) equipment. The nesting bird species and, to the degree feasible, the nesting stage (e.g., incubation of eggs, feeding of young, near fledging) will be documented. The biologist shall establish a no-disturbance buffer around each active nest. The buffer will be determined by the biologist based on the species present and surrounding habitat. No construction or ground-disturbance activities shall be conducted within the buffer until the biologist has determined the nest is no longer active and has informed the construction supervisor that activities may resume.

4.3.6 Environmental Impacts After Mitigation Is Incorporated

Impacts to biological resources can be mitigated to less than significant levels by incorporating mitigation measures as described in the EIR. No significant adverse impacts would remain after mitigation.

4.3.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

City of Riverside. 2007. *City of Riverside General Plan 2025*. November 2007.

City of Riverside. 2003. Riverside Municipal Code, Chapter 16.72 – Western Riverside Multiple Species Habitat Conservation Plan Fee Program.

RTLMA (County of Riverside Transportation and Land Management Agency). 2003. *Western Riverside County Multiple Species Habitat Conservation Plan*. June 17, 2003. http://www.rctlma.org/mshcp/volume1/sec1.html#1.2.

NRCS (U.S. Department of Agriculture, Natural Resources Conservation Service). 2013. *Web Soil Survey*. Accessed May 9, 2013. http://websoilsurvey.nrcs.usda.gov/app/.

USGS (U.S. Geological Survey). 1967. *Riverside West, California, 7.5-minute Topographic Map*. Reston, Virginia. Color, revised 1980, scale 1:24,000.

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4.4 CULTURAL RESOURCES

The focus of the following discussion and analysis is related to potential impacts to historical resources and archaeological resources resulting from implementation of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project) and includes discussion of any comments received during the Initial Study/Notice of Preparation (IS/NOP) public comment period. The IS concluded that potential impacts related to paleontological resources were found to be less than significant and are therefore not discussed further in this Draft Environmental Impact Report (EIR). Additionally, potential impacts related to human remains were found to be less than significant in the IS (Appendix A).

The Morongo Band of Mission Indians and Native American Heritage Commission recommended provisions for discovery of Native American human remains during grading and other construction excavation, including stopping work in the immediate vicinity and contacting the Riverside County Coroner's Office pursuant to California Health and Safety Code, Section 7050.5, in their NOP comment letters, Project design features outlined in Section 2.0, Table 2.0-5, of this EIR include compliance with California Health and Safety Code, Section 7050.5. State and local laws require that the county coroner be notified. California Public Resources Code, Section 5097.8, addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission to resolve disputes regarding the disposition of such remains. The project will be required to comply with California Public Resources Code, Section 5097.8, should any unknown human remains be discovered during site disturbance. Therefore, given that the project will be required to comply with California Health and Safety Code, Section 7050.5, and California Public Resources Code, Section 5097.8, impacts related to human remains will remain less than significant and this issue will not be further analyzed in this EIR.

In addition to other documents, the following references were used in the preparation of this section of the EIR:

- Wilkman Historical Services (WHS), *Cultural Resources Survey and Evaluation: Riverside Community Hospital Specific Plan*, August 20, 2013 (provided as Appendix D to this EIR)
- Title 20 of the Riverside Municipal Code (City of Riverside 2010)
- *City of Riverside General Plan 2025* (City of Riverside 2007a).

4.4.1 Setting

The project site is currently developed and is located in the downtown area of the City of Riverside (City). The natural topography of the area is valley lowland intersected by rolling hills and surrounded by mountain ranges. Most of the regional area has been developed or disturbed, and the only remaining large areas of native habitats occur along the Santa Ana River and in the Jurupa Mountains. Mount Rubidoux is located approximately 1 mile from the project site, on the east side of the Santa Ana River.

The project area is underlain by older Pleistocene alluvium (Qof) that covers Cretaceous granitic rocks. According to WHS (see Appendix D), the soil appeared to be medium brown, silty loam; ground surface visibility was zero in many areas due to the paving and buildings.

Cultural Context

The project site is situated within the territory of two Native American groups, the Gabrielino and the Cahuilla. The Gabrielino were hunters and gatherers who utilized food resources (e.g., acorns, buckwheat, berries, fruit, rabbit, deer, shellfish, waterfowl) along the coast as well as inland areas of Los Angeles, Orange, San Bernardino, and Riverside Counties during ethnographic (human cultures) times. Spiritual and medical activities were guided by a shaman (Appendix D). The Cahuilla—who are generally divided into three groups: Desert Cahuilla, Mountain Cahuilla, and Pass Cahuilla—inhabited the Santa Ana River area and areas ranging from the Salton Sink to the San Bernardino Mountains and San Gorgonio Pass (Appendix D). Cahuilla villages usually were in canyons or near sources of water and food plants. Spring Rancheria, occupied from approximately 1880 to 1900, was one of the Cahuilla villages near the project site, located on the north side of Mount Rubidoux where Spring Brook joined with the Santa Ana River. Spring Rancheria was listed in the 1889 *Riverside City Directory*, which documents that the villagers worked for nearby Riverside residents (Appendix D).

The approximately 2.5-acre Chinatown site, located at the northwest corner of Brockton Avenue and Tequesquite Avenue, is the eastern portion of a larger property where a village of Chinese immigrants existed from 1885 until the 1930s. Chinese immigrants worked on railroads and labored in Riverside's major economic engine, the citrus industry. Mr. George Wong (Wong Ho Luen) owned the Chinatown site from 1943 until his death in 1974.

Additional details regarding the cultural context of the project area are included in Appendix D.

Historical Context

RCH has been associated with the City since 1901. In the early 1900s the hospital was located at two other locations in downtown Riverside: a location on Orange Street and another at

Walnut Street (now known as Brockton Avenue). From 1902 until the early 1920s, the hospital was known as Riverside City Hospital at those locations.

The existing hospital campus has been located on the current site since 1925. As shown on Figure 13 of Appendix D, the existing RCH campus site falls into two geographic areas, defined by the Tequesquite Arroyo (upper and lower hospital campus). The upper hospital campus consists of the bluff overlooking the arroyo and the lower hospital campus consists of the arroyo bottom and the slopes. (These two topographic areas are still evident because of the 30-foot elevation difference between the upper and lower campus).

Prior to the purchase of the site for hospital use in 1923, the bluff area consisted of large fields of orchards, grain crops, scattered houses, and farm structures. Irrigation to these farmlands was provided by the Riverside Lower Canal, which traversed the site from the intersection of 14th Street and Magnolia Avenue southwest to the intersection of Brockton Avenue and Rice Road (see Figures 13 and 14 of Appendix D).

The lower hospital campus also consisted of farmlands before the purchase of the site for hospital use. In the early part of the 20th century, some of the farms in the arroyo bottom were redeveloped as athletic fields (Evans Athletic Park). Evans Athletic Park was donated to the City by Samuel Evans Jr. in 1906. Other recreational uses included baseball, night baseball, minor league training camp, track and field, lacrosse, rugby, football, boxing, swimming, archery, horse riding, and social gatherings (Appendix D).

In October of 1969, RCH approached the City with a proposal to trade Evans Sports Complex for another property on which to develop new baseball diamonds. By 1971, RCH acquired over 40 acres of former dairy lands between Palm Avenue and Tequesquite Avenue, including lands west of Evans Sports Complex and the site of the Dutch Dairy. In February of 1973, the City Council approved the land swap of the 40 acres of former dairy lands in exchange for Evans Sports Complex. Under a lease agreement between RCH and the City, the arroyo bottom land would continue to include large areas devoted to Evans Sports Complex's historical ball fields. As it exists today, a small corner of the Tequesquite Arroyo west of Magnolia Avenue remains devoted to ball fields. These baseball diamonds are operated under joint use agreement between the City and Riverside City College.

Details regarding the historical context of the project site and area are included in Appendix D.

A brief summary of the history of the existing buildings on the project site is provided below. Further specifics of each building can be found in the cultural report in Appendix D. Refer to Figure 4.4-1, Site Plan, for the location of each building.

Building A: In 1920, Dr. Van Zwalenburg launched a funding effort for a new, 85-licensed-bed hospital facility on the Magnolia Avenue/14th Street bluff. Myron Hunt, a prominent Los Angeles architect, was chosen to design the new hospital. Known Riverside projects designed by Hunt included the Spanish Wing of the Mission Inn and the Riverside Municipal Auditorium.

In 1922, a 5-acre site was selected at the southwest corner of Magnolia Avenue and 14th Street (see Figure 4.4-1, Site Plan).

On December 8, 1923, a building permit was issued for the hospital and in March of 1925, the hospital was opened. The hospital was a modern facility with Spanish Colonial architectural influences reflected in its red clay tile cross gable roof and its arcaded front entry. The rear of the building appeared to be a utilitarian, flat-roofed structure. This wing housed a kitchen, hospital services unit, and a boiler room (see Figure 17 in Appendix D). Only a portion of the easterly end of the original building remains open to view from outside the hospital campus.

Palm trees at the northeast corner of Magnolia Avenue and 14th Street were donated to the hospital by noted palm tree authority and Riverside resident J. Harrison Wright to complement a palm grove he donated to Newman Park across Magnolia Avenue (Appendix D).

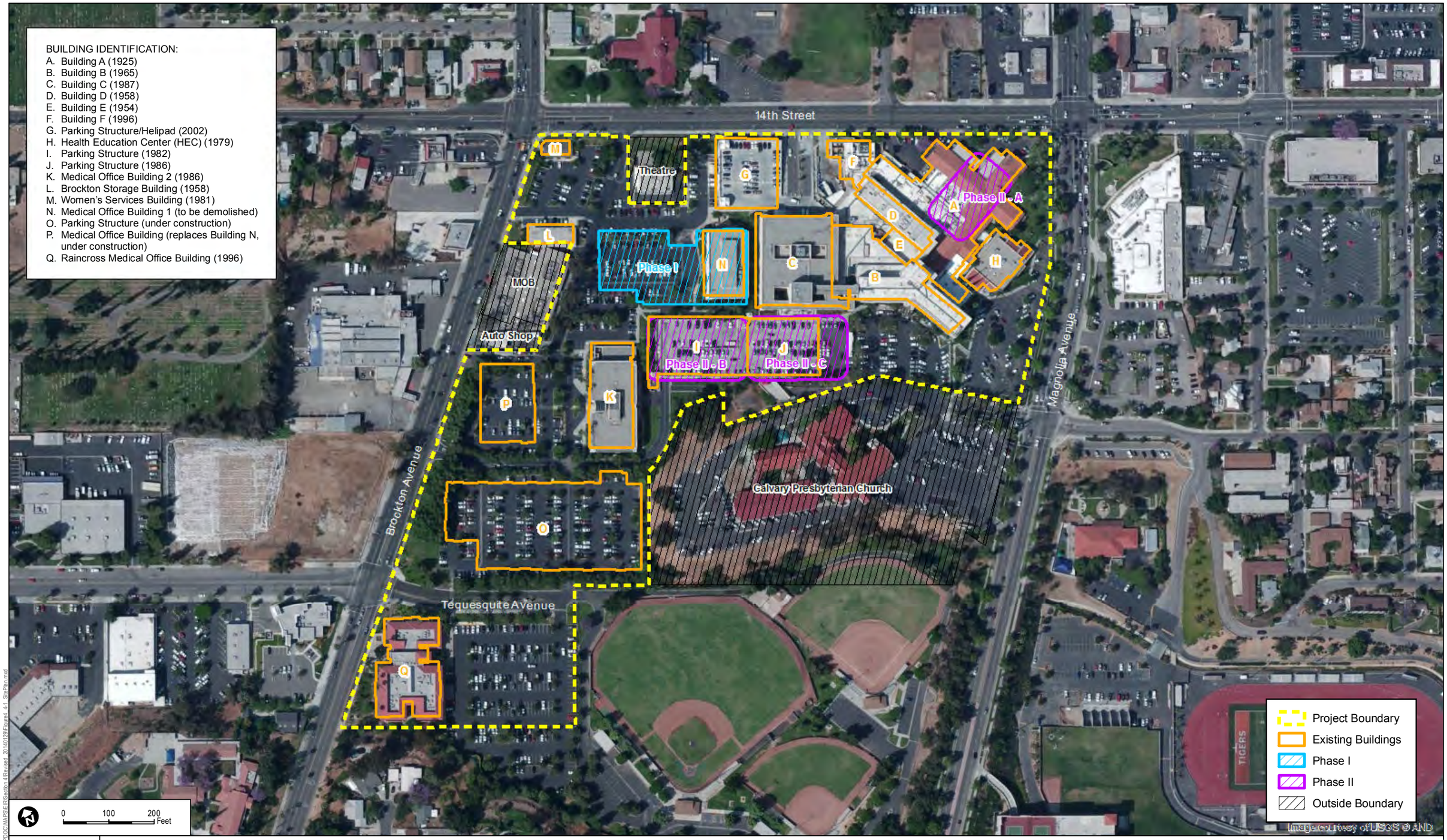
On April 2, 1941, a new laundry facility was added to Building A.

During World War II, many doctors and nurses enlisted to serve in the military. In just 3 years, Riverside's population grew by about 10,000 new residents, many of whom were military transplants. To meet the unprecedented demand, almost every part of the hospital was converted to bed space, including the X-ray rooms, screened porches, and the nurses' training auditorium (Appendix D).

The war ended in late 1945; however, pressures on RCH continued, with a postwar baby boom that added a new challenge for hospital resources. The hospital responded by reopening its maternity ward and adding a children's wing in 1949 (Appendix D).

To take pressure off other hospital facilities, a new 32-bed maternity wing was constructed. A permit for this wing was issued on July 15, 1949, and a final inspection was recorded on March 15, 1950.

As shown in Figure 18 of Appendix D, by 1960, the open arcades across the front of Building A had been filled in with offices and a new gabled entry had been added.



DUDEK

7824-01

SOURCE: Kimley-Horn and Associates 5/20/2013, Perkins+Will 5/20/2013, BING 2013

FIGURE 4.4-1

Site Plan

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

Path: Z:\Projects\7824\01\MAP\DOC\MAP\SEIR\Section 4\Revised_20140129\Figure4_4-1_SitePlan.mxd

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Building B: Local Riverside architect Herman O. Ruhnau was chosen to design a new, six-story, 325-bed, 200,000-square-foot building west of Building A (Appendix D). This facility was completed in 1966. The building added five new surgical rooms to the existing eight at the hospital. It also included separate wards for intensive care and new facilities for emergency care, outpatient treatment, maternity care, pediatrics, physical therapy, and pharmacy services. The new facility increased the hospital's total bed capacity to 325.

In order to access the new bed tower, the maternity wing of Building A needed to be demolished.

Building C: In 1981, the hospital announced plans to open a new, hospital-based cardiac treatment center. To accommodate this function a new, six-story Critical Care Tower was completed in 1988 west of the Building B bed tower. The Critical Care Tower was designed for 34 intensive care and heart patient beds, pre- and postoperative care units, 10 suites for surgical care, a new emergency room, an outpatient surgery center, and a facility for processing supplies. Upon its completion, access for ambulances and walk-in emergency care patients moved from the central parking lot south of Buildings B and C to the 14th Street side of the hospital campus.

Building D: In 1958, to meet the expanding needs of the hospital, a three-story hospital bed tower was built northwest of Building A. The new three-story hospital bed tower was designed to include a basement, and engineered to accommodate three additional floors. Building D includes the boiler room and laundry facility. Building D had a capacity of 240 patients and included two minor and four major operating rooms, a cytoscopic operating room, a fracture room, a postoperative recovery room, an X-ray department, and an emergency facility.

Building E: Building E is an infill building between Buildings A, B, and D and is used for outpatient surgery and radiology.

Building F: Building F is a single-story building that was constructed in 1997 and is attached to Buildings A, D, and E. Its exterior walls are visible from 14th Street. It is a utilitarian structure that houses emergency generators.

Building G: The parking structure/helipad, Building G, is a two-level parking structure that was constructed in 2002. The parking structure/helipad is accessed directly from 14th Street and provides convenient public parking for the emergency hospital and the Heart Care Institute within Building C.

Building H: The health education center, Building H, is a 20,200-square-foot, single-story building that was constructed in 1980 and was built on the grounds of what had been the landscaped entry to the original Myron Hunt Building (Building A). Building H was designed by local architects Cole and Frick. The health education center provides for the continuing educational needs of hospital staff.

Building I: The parking structure Building I is a four-level parking structure that was constructed in 1983 and is part of an interconnected parking structure with parking structure Building J. Building I provides parking for the upper portion of the hospital campus.

Building J: The parking structure Building J is a four-level parking structure that was constructed in 1986. Building J formed an extension to the Building I parking structure and was built to provide additional parking and allow access from the lower portion of the hospital campus.

Building K: Medical Office Building 2, Building K, is a three-story building that was originally constructed in approximately 1986; it was remodeled and expanded in approximately 2003 to accommodate the hospital's cancer treatment center.

Building L: The Brockton Storage Building, Building L, is a single-story structure that was built in approximately 1958 and was occupied by retail and office uses. In 2002, RCH bought this building and converted it to hospital storage.

Building M: The women's services building, Building M, is a single-story building that was built in 1981 and was occupied by a Vans shoe store. In the mid-1990s, RCH bought this building and converted it to the women's services center.

Building N: Medical Office Building 1, Building N, is a five-story, rectangular office building that was built in 1975, with exterior walls consisting of a reinforced-concrete framework infilled with concrete block. Building N was designed by prominent Riverside architect Clinton Marr. Building N provides doctors' offices and pharmacy services. Building N is proposed for demolition as part of the project in order to accommodate the construction of the Phase I hospital bed tower. The doctors/physicians and staff from Building N will be moved to the new medical office building, Building P.

Building O: The parking structure Building O is a five-level parking structure that is currently under construction and is expected to be completed in February 2014.

Building P: The new medical office building, Building P, is a three-story building that is currently under construction and is expected to be completed in March 2014. Building P is intended to replace the doctors' offices lost from the demolition of Medical Office Building 1, Building N.

Building Q: The Raincross Medical Office Building, Building Q, is a three-story building that was completed in 1996 to provide doctors' offices, a pharmacy, and urgent care services.

Related Regulations

Federal

According to the *Guidelines for Completing National Register of Historic Places Forms* (NPS 1991), National Register of Historic Places (NRHP) listing is intended for historical architecture, archaeology, engineering, or cultural entities that are expressed in a site, building, structure, district, or object. The NRHP is not solely limited to entities with importance at the national level, but is also applicable to resources at the local and state levels. To qualify for NRHP listing, a resource must meet one or more of the following criteria:

a. Association with events which have made a significant contribution to the broad patterns of our history
b. Association with the lives of persons significant in our past
c. Embodiment of the distinctive characteristics of a type, period, or method of construction or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction
d. Having yielded, or being likely to yield, information important in prehistory or history (NPS 1991).

However, it is not enough for a resource to meet one or more of the above criteria. It must also exhibit integrity. National Register Bulletin 15 defines integrity as "the ability of a property to convey its significance" (NPS 1991). The following integrity criteria are used by the federal government:

- Location: The historical location of the property or event
- Design: The historical form, layout, and style of the property
- Setting: The physical context
- Materials: The items that were placed in a specific time period/configuration

- Workmanship: The craftsmanship of the entity's creators
- Feeling: The expression of the historic sense of a time period
- Association: The link between a historical event/person and property.

Not all of the integrity criteria must be met for a resource to be eligible for listing. A resource must, however, retain enough integrity to convey its historical significance.

The NRHP sets as a guideline that a resource should be 50 years old or older to be considered a listing. However, an allowance may be made for younger resources to qualify for listing provided they are of exceptional significance.

State

California Register of Historical Resources

A resource is considered by the City to be historically significant if the resource meets any of the criteria for designations listed on the California Register of Historical Resources (CRHR):

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2. Is associated with the lives of persons important in our past
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4. Has yielded, or may be likely to yield, information important in prehistory or history (California Public Resources Code Section 5024.1, 14 CCR 4852).

California resources listed in the NRHP are automatically listed in the CRHR.

Senate Bill 18

The Local and Tribal Intergovernmental Consultation process, commonly known as Senate Bill (SB) 18 was signed into law in September of 2004 and took effect on March 1, 2005. SB 18 established responsibilities for local governments to contact, provide notice to, refer plans to, and consult with California Native American Tribes. The purpose of this consultation process is to protect the identity of the cultural place and to develop appropriate and dignified treatment of the cultural place in any subsequent project. The consultation is required whenever a general plan, specific plan, or open space designation is proposed for adoption or to be amended. As part of the application process, California

Native American Tribes must be given the opportunity to consult with the applicant of the project and with the City for the purpose of preserving, mitigating impacts to, and identifying cultural places located on project land within the City's jurisdiction. The project involves a general plan amendment and specific plan amendment; therefore, SB 18 applies to the project. The consultation process for the project began on November 27, 2013, and will end on February 27, 2014.

Local

Title 20

The City has developed a historical preservation program that is among the most active in the State of California. Riverside's commitment to historical preservation began in 1969 with the adoption of a preservation ordinance, Title 20 of the Municipal Code, and the creation of the Cultural Heritage Board. Since that time the program has grown to include an ongoing process to survey, record, and designate historical resources; an award-winning historical resources inventory database; historic district design guidelines; educational programs; and a historical preservation plan. The California Office of Historic Preservation has designated Riverside as a Certified Local Government. This distinction ensures that the City's preservation program meets all state and federal standards.

Title 20 of the Riverside Municipal Code is the primary body of local historical preservation laws. The purpose of Title 20 is to promote the public health, safety, and general welfare by providing for the identification, protection, enhancement, perpetuation and use of improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets, works of art, natural features, and significant permanent landscaping having special historical, archaeological, cultural, architectural, community, aesthetic, or artistic value in the City. Title 20 of the Riverside Municipal Code establishes procedures for preserving, protecting, and designating significant cultural resources should the resource be considered a historical/cultural resource (City of Riverside 2010).

The City of Riverside has two levels of individual historical designation: Cultural Heritage Landmark and Resource or Structure of Merit. The Landmark designation is the City's highest historical designation, while the Resource or Structure of Merit designation is for resources of a lower level of significance. The following are the criteria for these two types of resources as defined in the Cultural Resources Ordinance of the City of Riverside Municipal Code (City of Riverside 2010, Ordinance 7108) as amended:

Cultural Heritage Landmark Criteria: "Landmark" means any Improvement or Natural Feature that is an exceptional example of a historical, archaeological, cultural, architectural,

community, aesthetic or artistic heritage of the City, retains a high degree of integrity, and meets one or more of the following criteria:

1. Exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;
2. Is identified with persons or events significant in local, state or national history;
3. Embodies distinctive characteristics of a style, type, period or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
4. Represents the work of a notable builder, designer, or architect, or important creative individual;
5. Embodies elements that possess high artistic values or represents a significant structural or architectural achievement or innovation;
6. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning, or cultural landscape;
7. Is one of the last remaining examples in the City, region, State, or nation possessing distinguishing characteristics of an architectural or historical type of specimen; or
8. Has yielded or may likely to yield, information important in history or prehistory.

Resource or Structure of Merit Criteria: "Resource or Structure or Resource of Merit" means any Improvement or Natural Feature which contributes to the broader understanding of the historical, archaeological, cultural, architectural, community, aesthetic or artistic heritage of the City, retains sufficient integrity, and:

1. Has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood community or of the City;
2. Is an example of a type of building which was once common but is now rare in its neighborhood, community or area;
3. Is connected with a business or use which was once common but is now rare;
4. A Cultural Resource that could be eligible under Landmark Criteria no longer exhibiting a high level of integrity, however, retaining sufficient integrity to convey significance under one or more of the Landmark Criteria;
5. Has yielded or may be likely to yield, information important in history or prehistory; or
6. An improvement or resource that no longer exhibits the high degree of integrity sufficient for Landmark designation, yet still retains sufficient integrity under one or more of the Landmark criteria to convey cultural resource significance as a Structure of Merit (City of Riverside 2010, Ordinance 7108 Section 1).

Historic District: The City of Riverside defines a Historic District as:

1. A concentration, linkage, or continuity of cultural resources, where at least fifty percent of the structures or elements retain significant history integrity (a "geographic Historic District"), or
2. A thematically-related grouping of cultural resources which contribute to each other and are unified aesthetically by plan or physical development, and which have been designated or determined eligible for designation as a historic district by the Historic Preservation Officer, Board, or City Council, or is listed in the National Register of Historic Places or the California Register of Historical Resources, or is a California Historical Landmark or a California Point of Historical Interest (a "thematic Historic District").

In addition to either 1 or 2 above, the area also:

1. Exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;
2. Is identified with persons or events significant in local, State, or national history;
3. Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
4. Represents the work of notable builders, designers, or architects;
5. Embodies a collection of elements of architectural design, detail, materials, or craftsmanship that represents a significant structural or architectural achievement or innovation;
6. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning;
7. Conveys a sense of historic and architectural cohesiveness through its design, setting, materials, workmanship or association; or
8. Has yielded or may be likely to yield, information important in history or prehistory.

Contributors and Non-Contributors: Within a historic district, resources are identified as either "contributors" or "non-contributors." These are identified as follows:

"Contributors" to either a Historic District or a Neighborhood Conservation Area means a building structure within a Historic District or Neighborhood Conservation Area that provides appropriate historic context, historic architecture, historic association or historic value, or is

capable of yielding important information about the period. Contributors in Historic Districts and Neighborhood Conservation areas are subject to the Certificate of Appropriateness Process.

"Non-Contributor" to either a Historic District or a Neighborhood Conservation Area means a building structure within a Historic District or Neighborhood Conservation Area that does not provide appropriate historic context, historic architecture, historic association, or historic value, or is not capable of yielding important information about the period, because that building structure:

1. Was not present during the district's or area's period of historic significance; or
2. No longer possesses integrity due to alterations, disturbances, additions, or other changes; and
3. Does not independently meet the designation criteria as defined in this Title.

In accordance with Title 20, a Certificate of Appropriateness is required to alter, demolish, or relocate properties that are designated or determined eligible for designation as a City Cultural Resource.

City of Riverside General Plan 2025

In 1994, the City's General Plan (GP) was adopted and included historical preservation goals and policies that addressed preserving the City's historical and architecturally significant structures and neighborhoods and supporting and enhancing its arts and cultural institutions. In 2007, with the GP 2025, the City adopted a new GP, while still maintaining a Historic Preservation Element. The project would be consistent with the following objectives and policies from the City's GP 2025 Historic Preservation Element:

Objective HP-1: To use historic preservation principles as an equal component in the planning and development process.

Policy HP-1.1: The City shall promote the preservation of cultural resources to ensure that citizens of Riverside have the opportunity to understand and appreciate the City's unique heritage.

Policy HP-1.3: The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process.

Policy HP-1.4: The City shall protect natural resources such as geological features, heritage trees, and landscapes in the planning and development review process and in park and open space planning.

Policy HP-2.1: The City shall actively pursue a comprehensive program to document and preserve historic buildings, structures, districts, sites (including archaeological sites), objects, landscapes, and natural resources.

Policy HP-2.2: The City shall continually update its identification and designation of cultural resources that are eligible for listing in local, state and national registers based upon the 50 year age guideline for potential historic designation eligibility.

Policy HP-2.3: The City shall provide information to citizens and the building community about what to do upon the discovery of archaeological resources and burial sites, as well as, the treatment, preservation, and repatriation of such resources.

Objective HP-4: To fully integrate the consideration of cultural resources as a major aspect of the City's planning permitting and development activities.

Policy HP-4.1: The City shall maintain an up-to-date database of cultural resources and use that database as a primary informational resource for protecting those resources.

Policy HP-4.3: The City shall work with the appropriate tribe to identify and address, in a culturally appropriate manner, cultural resources and tribal sacred sites through the development review process.

Objective HP-5: To ensure compatibility between new development and existing cultural resources.

Policy HP-5.1: The City shall use its design and plot plan review processes to encourage new construction to be compatible in scale and character with cultural resources and historic districts.

Policy HP-7.2: The City shall incorporate preservation as an integral part of its specific plans, general plan, and environmental processes (City of Riverside 2007a).

4.4.2 Thresholds of Significance

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS prepared for the project and Appendix G, a development project could have a significant impact on cultural resources if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

4.4.3 Project Elements That Can Reduce Impacts

The project has been designed, and will continue to be designed in the future, to be compatible with the surrounding area. Chapter 7.0 of the SP includes specific development standards that will apply to current and future development within the RCH SP zoning district to ensure the site is developed in a manner that is sensitive to the cultural and historic significance of the area. Development standards include height restrictions, setbacks, and floor area ratio; see Table 7-1, General Development Standards, and Table 7-2, Exceptions to General Development Standards, in Chapter 7.0 of the RCH SP. Development standards have been prepared in accordance with Government Code Section 65456 et seq. and the City of Riverside Municipal Code, Title 19, Zoning Code (City of Riverside 2007b).

The Vision, Goals, and Policies in Chapter 3.0 and Development Standards in Chapter 7.0 of the RCH SP have been prepared to provide a compatible backdrop for the historic landscape by the J. Harrison Wright Palm Grove; to maintain the architectural integrity of Building B, which is eligible for eligible listing in the CRHR; and to be sensitive to Calvary Presbyterian Church and Riverside Community Players Theatre, in order to reduce potential impacts to cultural resources.

4.4.4 Environmental Impacts Before Mitigation

Records searched included those on file at the City of Riverside Planning Division, City of Riverside Local History Resource Center, Riverside Metropolitan Museum, Los Angeles Public Library, County of Riverside Assessor, and various Internet websites.

Threshold: Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The NRHP criteria suggest that buildings and other improvements are generally considered appropriate for evaluation when they are 50 years old or older. Many governmental agencies, however, use 45 years old or older as a basic benchmark so that buildings that are close to the 50-year age guideline are also evaluated. The City has used the 45-year age guideline to evaluate any historical significance on the RCH site.

Project- and Program-Level Elements

Data from the Eastern Information Center

The records search identified 190 historical buildings and structures within a 1-mile radius, none of which are within the project site. However, based on the age of the structures, there are five buildings (Buildings A, B, D, L, and N) on the RCH site that have been subject to evaluation for potential historical significance (see Figure 4.4-1, Site Plan). All but Medical Office Building 1,

Building N, are 50 years old or older. In addition, there are eight buildings or sites (Riverside Community Players Theatre, Community Medical Building, Brockton Medical Building, Calvary Presbyterian Church, Chinatown site, Grant Elementary School, Newman Park, and the Old Magnolia Avenue Trolley Line and Refuse Dump) off site near the project site that have been subject to evaluation for potential historical significance. The following discussion describes each of the on- and off-site buildings/sites and its historical significance.

On-Site Historical Resources

Building A and Palm Grove

Building A, at the corner of Magnolia Avenue and 14th Street, is the original hospital structure built in 1925. Based on the Cultural Resources Survey and Evaluation by WHS (Appendix D), Building A does not qualify for historical designation due to issues with the building's architectural integrity. WHS assigned a California Historical Resource (CHR) Status Code of 6L (determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning) to this building because of its proximity to the J. Harrison Wright Palm Grove. Building A is proposed for demolition during Phase IIa.

Although Building A was not found to be historic, WHS determined that the palm grove at the southwest corner of Magnolia Avenue and 14th Street qualifies for City of Riverside Cultural Heritage Landmark status as a cultural landscape. The palm trees were donated to RCH by renowned palm tree authority and Riverside resident J. Harrison Wright and were clustered at the corner to balance with the historic palm grove in Newman Park, across Magnolia Avenue. As such, WHS assigned a CHR Status Code of 5S3 (appears to be individually eligible for local listing or designation through survey evaluation).

Mitigation Measures **MM AES-3** (in Section 4.1 of this EIR) and **MM CUL-1** (described below) shall be implemented to ensure that the palm grove, including other mature trees in the vicinity of the palm trees and the mounded turf in the landscaped area where the trees are planted, are taken into consideration when the Phase IIa approximately 100,000-square-foot mixed-use building and associated parking are designed. No mitigation measures related to the demolition of Building A are necessary, given its lack of historical status. Impacts would be considered **less than significant with mitigation incorporated**.

Building B

Building B, situated roughly in the center of the upper hospital campus, currently serves as RCH's main hospital bed tower. Based on the Cultural Resources Survey and Evaluation by WHS (Appendix D), Building B appears eligible for City of Riverside Cultural Heritage Landmark designation as well as for listing on the CRHR because Building B is an example of

Mid-Century Modern architecture designed by a renowned local architect, Herman O. Ruhnau. As such, WHS assigned a CHR Status Code of 5S3 (appears to be individually eligible for local listing or designation through survey evaluation) and 3CS (appears to be eligible for the CRHR as an individual property through survey evaluation).

In order to bring Building B into compliance with current seismic standards per SB 1953, Building B is proposed for a full seismic upgrade, including new windows, as a result of the retrofit during Phase I of the project. Alterations of Building B may impact character-defining features of the building; therefore, **MM AES-2** (in Section 4.1 of this EIR) would be implemented. Impacts would be considered **less than significant with mitigation incorporated**.

Building D

Building D is situated roughly in the center of the upper hospital campus north of Building B. Based on the Cultural Resources Survey and Evaluation by WHS (Appendix D), Building D does not qualify for historical designation due to significant integrity issues, such as the first-floor elevations being obscured by other buildings and the south elevation being largely altered and obscured by the extension of an enclosed corridor from Building B. Therefore, seismic upgrades to Building D during Phase I of the project would result in a **less than significant** impact related to historical resources and no mitigation measures are required.

Building L, Brockton Storage Building

The Brockton Storage Building, Building L, is situated in the lower hospital campus, south of the women's services building, Building M. Based on the Cultural Resources Survey and Evaluation by WHS (Appendix D), the Brockton Storage Building is a vernacular commercial building that lacks any architectural significance and is not associated with any persons or events important in history. Therefore, Building L does not qualify for historical designation and WHS assigned a CHR Status Code of 6Z (found ineligible for NRHP, CRHR, or local designation through survey evaluation). No changes to the Brockton Storage Building would occur as part of the project; therefore, **no historical impacts** related to the Brockton Storage Building would occur and no mitigation measures are required.

Building N, Medical Office Building 1

Medical Office Building 1, Building N, is situated in the lower hospital campus, west of Building C. Building N was designed by one of the City's more significant architects, Clinton Marr. WHS interviewed Clinton Marr on May 10, 2013, to discuss Building N's importance compared to the architect's overall architectural portfolio. Clinton Marr stated that Medical Office Building 1 was designed to serve as convenient physician access to the hospital's main bed tower (Building B), that it needed to have a flexible interior design that would

accommodate a variety of office space sizes and layouts, and that he had recommended using reinforced concrete and concrete block for the building for better security. Based on the Cultural Resources Survey and Evaluation by WHS (Appendix D), WHS determined that Building N was not among the most creative or significant examples of works by Clinton Marr. Thus, WHS determined that Building N does not qualify for historical designation and assigned a CHR Status Code of 6Z (found ineligible for NRHP, CRHR, or local designation through survey evaluation) (Appendix D). Therefore, demolition of Building N in order to accommodate the Phase I hospital bed tower would result in **less than significant** impacts to historical resources and no mitigation is required.

Off-Site Historical Resources

Riverside Community Players Theatre

The Riverside Community Players Theatre, which is adjacent to the hospital campus to the north, houses the oldest theatrical group in the City. Based on the Cultural Resources Survey and Evaluation by WHS (Appendix D), the Riverside Community Players Theatre appears to be eligible for designation as a City of Riverside Structure of Merit, with a CHR Status Code of 5S3 (appears to be individually eligible for local listing or designation through survey evaluation) due to the Riverside Community Players' theatrical history in the City. However, WHS determined that the theatre does not appear eligible for local Landmark designation or listing on either the CRHR or the NRHP due to the scale and nature of alterations to the building, which significantly detract from its original architectural integrity (Appendix D).

The proposed seven-story Phase I hospital bed tower would be the closest project component to the Riverside Community Players Theatre (see Figure 4.4-1). The height difference between the one- to two-story Riverside Community Players Theatre and the proposed seven-story Phase I hospital bed tower could potentially impact the historical value of the theatre. However, implementation of the design standards in Chapter 7.0 of the RCH SP would help to reduce potential impacts. For example, Table 7-2 of the RCH SP requires that development adjacent to the Riverside Community Players Theatre maintain a minimum setback of 30 feet from the theatre as well as maintaining a maximum height of 45 feet to a depth of 90 feet from the theater. This standard would ensure that the structure's eligibility for designation as a City of Riverside Structure of Merit and its CHR Status Code of 5S3 are not adversely affected. Additionally, implementation of **MM CUL-2** would address issues related to access and parking for the Riverside Community Players Theatre and would include measures to soften views. Impacts would be considered **less than significant with mitigation incorporated**.

Community Medical Building

The Community Medical Building is located at 4440 Brockton Avenue, Riverside, California, east of the hospital campus. The Community Medical Building is a Mid-Century Modern structure that was designed by the architectural firm of Cowan & Bussey. WHS noted that the work of Cowan & Bussey lacked the overall design creativity of other Riverside architects such as Clinton Marr and Herman O. Ruhnau. Additionally, WHS noted that the architecture of the Community Medical Building did not rise to the level of a significant example of Modern Architecture (Appendix D). Therefore, WHS determined that the Community Medical Building does not qualify for historical designation and assigned it a CHR Status Code of 6Z (found ineligible for NRHP, CRHR, or local designation through survey evaluation). Implementation of the project would not physically impact this building; therefore, the project would not result in an adverse change to a historical resource as defined in Section 15064.5, as it is not considered a significant historical resource. **Less than significant** impacts would occur and no mitigation measures are necessary.

Brockton Auto Clinic

The Brockton Auto Clinic, located adjacent to the hospital campus to the west, is a vernacular Western False Front commercial building that lacks any architectural significance and is not associated with any persons or events important in history (Appendix D). As such, WHS determined that the Brockton Auto Clinic does not qualify for historical designation and assigned the building a CHR Status Code of 6Z (found ineligible for NRHP, CRHR, or local designation through survey evaluation). Therefore, the project would not result in an adverse change to a historical resource as defined in Section 15064.5, since implementation of the project would not physically impact this building and it is not considered a significant historical resource. **Less than significant** impacts would occur and no mitigation measures are necessary.

Calvary Presbyterian Church

Calvary Presbyterian Church, located adjacent to the hospital campus along its southern edge, was designed by prominent architect Carleton Monroe Winslow. Calvary Presbyterian Church is designated as a City of Riverside Structure of Merit/Cultural Heritage Landmark and was found eligible for listing on the NRHP, with a CHR Status Code of 3S (appears eligible for the NRHP through survey evaluation) (Appendix D). Calvary Presbyterian Church is one of the more prominent board-formed concrete structures in the City and is the City's only large-scale Gothic Revival church. The Phase IIb hospital bed tower and Phase IIc of the project would be the two closest project components to the church (see Figure 4.4-1). The proximity of the multi-story towers proposed during Phase IIb and IIc could indirectly impact the historical context of Calvary Presbyterian Church. Implementation of **MM AES-1** from Section 4.1 of this EIR

requires design measures that would ensure that the structure's historical designation as a City of Riverside Structure of Merit/Cultural Heritage Landmark and NRHP eligibility are not adversely affected. Impacts would be considered **less than significant with mitigation incorporated**.

Chinatown Site

The Chinatown site, located at the northwest corner of Brockton Avenue and Tequesquite Avenue (across Brockton Avenue from the project site), is a City of Riverside Cultural Heritage Landmark and is eligible for listing in the NRHP. The Chinatown site is significant for its potential to yield information important to the history of Chinese immigrants in Riverside.

While there is no direct evidence of Chinatown-related uses on the RCH site, the location of Chinatown across Brockton Avenue leaves open the possibility that evidence of Chinatown's history may lie below the ground on the hospital site. To address the potential for archaeological evidence below the ground on the RCH site, grading activities during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project would be monitored by a qualified archaeologist (**MM CUL-3**). Impacts would be considered **less than significant with mitigation incorporated**.

Grant Elementary School

Grant Elementary School, located at 4011 14th Street, Riverside, California, is situated northeast of Brockton Avenue and 14th Street, north of the hospital campus. Grant Elementary School is located on the site of one of Riverside's early schools (14th Street School), an 1889 three-story brick Victorian style building. After the 1933 Long Beach–Compton earthquake, the unreinforced-masonry Victorian school building was razed and the current building was constructed on the same site. The new Spanish Colonial Revival style building was designed by prominent local architect G. Stanley Wilson (Appendix D). Some of the Victorian building's granite retaining walls and a cast iron fountain remain on the site from the old 14th Street School. In 1978, Grant Elementary School was designated as City of Riverside Cultural Heritage Landmark Number 38 and based on a previous 2003 historical resources survey, the property was determined to be eligible for the NRHP (Appendix D). Since all phases of the project would either be obstructed by existing hospital facilities or set back a distance from Grant Elementary School, implementation of the project would not impact the school. Therefore, impacts would be **less than significant** and no mitigation measures are necessary.

Newman Park

Newman Park is a small green space located at the southeast corner of 14th Street and Magnolia Avenue, east of the hospital campus. Improvements to Newman Park include a grove of palm trees that were donated to the City by world-famous authority on palms J. Harrison Wright and an Art Deco style monument to Juan Bautista de Anza. As previously discussed,

Wright also donated numerous palms to RCH (located at the Building A site) for its initial landscaping on site. The transplanted palms created a balanced landscaped entry feature at the intersection of Magnolia Avenue and 14th Street. Implementation of **MM AES-3** (from Section 4.1 of this EIR) and **MM CUL-1** (described below) would ensure that the palm grove at Newman Park is also taken into consideration when the Phase IIa approximately 100,000-square-foot, mixed-use building and associated parking are designed. Impacts are considered **less than significant with mitigation incorporated**.

Old Magnolia Avenue Trolley Line and Refuse Dump

The Old Magnolia Avenue Trolley Line and Refuse Dump is located south of 14th Street in the vicinity of Magnolia Avenue, a portion of which is under Newman Park. Implementation of the project would not be proposed at this location. However, given the relatively close proximity of the Old Magnolia Avenue Trolley Line and Refuse Dump and the Phase IIa project components, undiscovered subsurface cultural resources related to the Old Magnolia Avenue Trolley Line and Refuse Dump that may exist in the area could be affected by the project. Implementation of **MM CUL-4** would ensure that proper measures are taken in the event that cultural resources are discovered during construction. Impacts would be considered **less than significant with mitigation incorporated**.

Riverside Community Hospital

As described in the Cultural Resources Survey and Evaluation report by WHS (Appendix D), the project site was previously farm lots, characterized by large fields of orchards, grain crops, scattered houses, and farm structures. In the early part of the 20th century, some of the farms in the arroyo bottom were redeveloped as athletic fields (Evans Athletic Park). The project site was purchased by RCH in 1923 for hospital campus use. Due to the history of the project site, WHS recommended that an interpretive feature be installed to educate the public on the history of the site and to explain the story of RCH (**MM CUL-5**). Impacts would be considered **less than significant with mitigation incorporated**.

Based on the above analysis, all impacts associated with all phases of the project and SP can be mitigated to a level below significant.

Threshold: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Project- and Program-Level Elements

WHS engaged the services of Virginia Austerman, MA, RPA, to examine the RCH site for potential archaeological resources. Data from the Eastern Information Center indicates that 42 cultural resource studies have been conducted within a 1-mile radius of the RCH campus

site, none of which are within the current RCH site. Outside the RCH campus site, but within the 1-mile radius, 12 archaeological sites have been recorded. One of these, CA-RIV-3248 (Chinatown), is within 30 meters of the project site, to the west. CA-RIV-6646H, also known as Old Magnolia Avenue Trolley Line and Refuse Dump, is within 350 meters of the project site and the site of the current Newman Park, to the northeast. The archaeological resource sites within the 1-mile search radius are listed in Table 4.4-1.

Table 4.4-1
Archaeological Resources within 1 Mile of the Project

Primary Number	Description
33-000678; CA-RIV-678	Spring Rancheria
33-003248; CA-RIV-3248	Chinatown
33-003358; CA-RIV-3358	Refuse Deposit
33-004170; CA-RIV-4170	Refuse Deposit
33-004172; CA-RIV-4172H	Bedrock Milling Feature
33-004495; CA-RIV-4495	Mary Evans Booster Station
33-004791; CA-RIV-4791	Upper Riverside Canal
33-007838; CA-RIV-5831H	Lower Riverside Canal
33-11006; CA-RIV-6646H	Magnolia Avenue Trolley Line and Refuse Deposit
33-13917; CA-RIV-7616	Historic Refuse Deposit
33-13941; CA-RIV-7631	John W. North Park
33-19936; CA-RIV-10126	Historic Refuse Deposit

Source: WHS 2013 (see Appendix D).

The following is a discussion of the archaeological resources near the project site.

Chinatown Site (CA-RIV-3248)

The Chinatown site is approximately 2.5 acres, located across Brockton Avenue from the hospital at the northwest corner of Brockton Avenue and Tequesquite Avenue. The Chinatown site is the eastern portion of a larger property where a village of Chinese immigrants existed from 1885 until the 1930s. Chinese immigrants performed important tasks that helped in the establishment of Riverside. These included working on railroads and laboring in Riverside's major economic engine, the citrus industry. Chinese immigrants also performed many other services in the City.

Chinatown was originally recorded in 1968 as California Point of Historical Interest Number RIV-008. At the time of this recording, the plot was listed as a 7-acre settlement founded in 1886 by Duey Wo Lung, a pioneer Chinese resident of Riverside. The site was recorded in 1980 as a result of a survey conducted by Dr. Nancy Wey with the Chinese American Survey of San Jose, California. Dr. Wey recorded the site as the Site of Historic Chinese American Community, or

"Chinatown." In 1985, a nonprofit research organization, the Great Basin Foundation, conducted an exploratory excavation of a small section of the site. This excavation established that brick foundations still exist belowground.

The Chinatown site was nominated for inclusion in the NRHP in 1990. The site had been looted by pot-hunters over the years prior to the nomination. Some of these artifacts were returned to, and are curated at, the Archaeological Research Unit at the University of California at Riverside.

The Chinatown site is significant for its potential to yield information important to the history of Chinese immigrants in Riverside. While there is no direct evidence of Chinatown-related uses on the RCH site, the location of Chinatown across Brockton Avenue leaves open the possibility that evidence of Chinatown's history may lie below the ground on the hospital site. To address the potential for archaeological evidence below the ground on the RCH site, grading activities during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project would be monitored by a qualified archaeologist (**MM CUL-3**). Impacts would be considered **less than significant with mitigation incorporated**.

Old Magnolia Avenue Trolley Line and Refuse Dump (CA-RIV-6646H)

The Old Magnolia Avenue Trolley Line and Refuse Dump, a portion of which is under Newman Park, is located south of 14th Street in the vicinity of Magnolia Avenue. The site was recorded in 1996 by CRM Tech, which conducted a test excavation trench in the site. The test trench revealed that the historical refuse was at least 15 feet deep and is now buried below modern-day curb and gutter, streets, and sidewalks. The majority of the refuse consisted of bricks, bottle glass, ceramic, and iron artifacts. The true extent of the site, both vertically and horizontally, was not determined by the testing program (Appendix D).

The site is located on land that was altered in 1913 when a segment of the Tequesquite Arroyo was filled to accommodate road construction. The fill dirt extended to a depth of 14 feet; therefore, artifacts recovered below this depth represented domestic refuse deposits that predated the 1913 construction project. The artifacts recovered dated to as early as 1895. The test program and artifact analysis conducted by CRM Tech in 1996 suggests, given the location of the site on the edge of Riverside's original downtown, that the refuse deposit could likely have been the location of the early town dump (Appendix D).

The 100,000-square-foot, mixed-use building proposed during Phase IIa at the current Building A site is relatively close to the archaeological site. Undiscovered subsurface cultural resources related to the Old Magnolia Avenue Trolley Line and Refuse Dump may exist in the area. Implementation of **MM CUL-4** would ensure that proper measures are taken in the event that cultural resources are discovered during construction of Phase IIa. No

other phases of the project are expected to impact this cultural site. Impacts would be considered **less than significant with mitigation incorporated.**

Riverside Community Hospital Site

In the event that archaeological resources are encountered during site preparation and/or construction of any phase of the project, potential impacts to those resources would be reduced to **less than significant with mitigation incorporated** (**MM CUL-4**).

4.4.5 Mitigation Measures

The following mitigation measures are recommended to reduce impacts to cultural resources, consistent with guidance provided in the CEQA Guidelines (14 CCR 15064.5):

MM CUL-1 Design and install a plaque and interpretive feature with prominent public access in the palm grove, telling the history of J. Harrison Wright and his association with the landscaping of Riverside Community Hospital (RCH) and Newman Park.

MM CUL-2 In order to avoid potential indirect impacts to the Riverside Community Players Theatre during Phase I, RCH will implement the following measures prior to issuance of building permits:

1. Before ground is broken for the new Phase I hospital bed tower, provide improved parking for Riverside Community Players Theatre patrons in accordance with the agreement between RCH and the Riverside Community Players. Many of the theatre patrons are elderly, so such parking needs to be located near the theatre and at the same general grade as the theatre.
2. If necessary, pave and stripe the area below the parking structure/helipad, Building G, to provide added parking near the theatre.
3. Work with theatre management to develop a means for ensuring access to convenient parking for theatre patrons when performances are scheduled at the Community Players Theatre.
4. Narrow the planter areas shown on the plot plan east and west of the parking bay along the north face of the Phase I hospital bed tower and use the space gained to create four or five finger planters to break up the expanse of parking. In these planters, tree varieties that will help soften the view to the lower part of the building will be required.

MM CUL-3 In order to lessen direct and indirect impacts related to archaeological evidence of Chinatown's history that is around the project site or at the Old Magnolia Avenue Trolley Line and Refuse Dump, all ground-disturbing activities during all construction phases of the project shall be monitored by a qualified archaeologist meeting the requirements of the Secretary of the Interior. In the event that the archaeological monitor identifies a potentially significant site, the monitor shall secure the discovery site from further impacts by delineating the site with staking and flagging, and by diverting grading equipment away from the archaeological site. Following notification to the City of Riverside (City), the archaeological monitor shall conduct investigations as necessary to determine whether the discovery is significant under the criteria listed in the California Environmental Quality Act and the environmental guidelines of the City. If the discovery is determined to be not significant, grading operations may resume and the archaeological monitor shall summarize the findings in a letter report submitted to the City following the completion of mass grading activities. The letter report shall describe the results of the on-site archaeological monitoring, each archaeological site observed, the scope of testing conducted, results of laboratory analysis (if applicable), and conclusions. The letter report shall be completed prior to the release of grading bonds. Any artifacts recovered during the evaluation of resources shall be curated at a facility approved by the City.

For the cultural prehistoric/historic resources that are determined to be significant, alternate means of achieving mitigation shall be pursued. In general, these forms of mitigation include the following:

1. Site avoidance by preservation of the archaeological site in a natural state in open space, or in specific open space easements
2. Site avoidance by preservation through capping the site and placing landscaping on top of the fill
3. Data recovery through implementation of an excavation and analysis program
4. A combination of one or more of the above measures.

MM CUL-4 In order to lessen direct and indirect impacts related to the historical resources located on the site, RCH shall develop an interpretive feature telling the story of RCH and display it in a prominent public place so that the public can be educated on the history of the site. This history will include the use of the property for farming and then athletic fields, as well as its ultimate development as a major medical center. This interpretive feature shall be installed prior to issuance of occupancy permits for Phase IIb.

4.4.6 Environmental Impacts After Mitigation Is Incorporated

Impacts to cultural resources can be mitigated to less than significant levels by incorporating mitigation measures as described in Section 4.4.5 of this EIR. No significant adverse impacts would remain after mitigation.

4.4.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

California Public Resources Code Section 5024.1. State Parks and Monuments: Historical Resources.

City of Riverside. 2007a. *City of Riverside General Plan 2025*. Adopted November 2007. Riverside, California: City of Riverside Community Development Department. Accessed January 5, 2011. http://www.riversideca.gov/planning/gp2025program/general-plan.asp.

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City of Riverside. 2010. Riverside Municipal Code: Title 20 – Cultural Resources. Adopted December 2010. Accessed January 5, 2011. http://www.riversideca.gov/municode/pdf/20/title-20.pdf.

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4.5 GREENHOUSE GASES

The focus of the following discussion and analysis, based on the Initial Study (Appendix A) and Notice of Preparation public comment period, concerns the potentially adverse impacts related to greenhouse gas (GHG) emissions during the construction and operation of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project).

In addition to other documents, the following sources were used in the preparation of this section of the Draft Environmental Impact Report (EIR):

- Dudek, 2014, *Air Quality Technical Report and Greenhouse Gas Analysis for the Riverside Community Hospital Specific Plan Expansion Project*, January 2014 (Appendix B).

4.5.1 Setting

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind, lasting for an extended period (decades or longer). Gases that trap heat in the atmosphere are often called GHGs. The greenhouse effect traps heat in the troposphere through a threefold process: short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and back toward the Earth. This "trapping" of the long-wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

Principal GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and water vapor (H_2O). Some GHGs, such as CO_2, CH_4, and N_2O, can occur naturally and are emitted into to the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely byproducts of fossil-fuel combustion, whereas CH_4 results mostly from off-gassing associated with agricultural practices and landfills. Man-made GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3), which are associated with certain industrial products and processes (CAT 2006).

The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Without it, the temperature of the Earth would be about 0°F (−18°C) instead of its current 57°F (14°C). Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect.

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP). The GWP varies between GHGs; for example, the GWP of CH_4 is 21, and the GWP of N_2O is 310. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG gas emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2E).[1]

Contributions to Greenhouse Gas Emissions

In 2011, the United States produced 6,702 million metric tons (MMT) of CO_2E (EPA 2013). The primary GHG emitted by human activities in the United States was CO_2, representing approximately 84% of total GHG emissions. The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 94% of the CO_2 emissions.

According to the 2010 GHG inventory data compiled by California Air Resources Board (CARB) for the California Greenhouse Gas Inventory for 2000–2010, California emitted 452 MMT CO_2E of GHGs, including emissions resulting from out-of-state electrical generation (CARB 2013). The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions in 2010 are presented in Table 4.5-1, GHG Sources in California.

Table 4.5-1
GHG Sources in California

Source Category	Annual GHG Emissions (MMT CO_2E)	% of Total[a]
Agriculture	32.45	7.2%
Commercial uses	14.50	3.2%
Electricity generation	93.30[b]	20.7%
Forestry (excluding sinks)	0.19	0.0%
Industrial uses	85.96	19.0%
Recycling and waste	6.98	1.5%
Residential uses	29.38	6.5%
Transportation	173.18	38.3%
High GWP substances	15.66	3.5%
Totals[c]	451.60	100%

Source: CARB 2013.
a Percentage of total has been rounded.
b Includes emissions associated with imported electricity, which account for 43.59 MMT CO_2E annually.
c Totals may not sum due to rounding.

[1] The CO_2 equivalent for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons of CO_2E = (metric tons of a GHG) × (GWP of the GHG). For example, the GWP for CH_4 is 21. This means that emissions of 1 metric ton of CH_4 are equivalent to emissions of 21 metric tons of CO_2.

The City of Riverside (City) Community Greenhouse Gas Emissions Inventory (City of Riverside 2010) preliminary study evaluated the current level of GHG emissions from the community within the City's geographic boundary (Community) and utilized ICLEI's Clean Air and Climate Protection Software and emission accounting protocols for assessing emissions from the following sectors: built environment (residential, commercial, industrial), mobile emissions (on-road transportation, airport, rail), and solid waste.

From 1990 to 2000, overall GHG emissions produced by the Community within the City increase by 20.4%. A critical factor in this rise is the continued growth and development within the City. For comparison, GHG emissions nationwide increased by about 15% between 1990 and 2000, according to the U.S. Environmental Protection Agency (EPA) (City of Riverside 2010). Similar growth and development occurred in the City between 2000 and 2007, and growth was projected going forward to 2012 under a business-as-usual scenario (i.e., no reduction in emissions due to GHG reduction measures). As shown in Table 4.5-2, Community GHG Emissions, the City's emissions were projected to increase in 2012 by 17.8% from 2007. Based on a population of 296,842 residents, the per capita CO_2E emissions were 9.45 metric tons (MT) per resident per year in 2007. The Community's estimated GHG emissions from City operations in the 2007 (baseline) and projected emissions under a 5-year business-as-usual scenario in 2012 are presented in Table 4.5-2.

Table 4.5-2
Community GHG Emissions

	2007		Projected 2012 Business as Usual	
Sector	*MT CO_2E*	*% of Total*	*MT CO_2E*	*% of Total*
Built Environment Energy Use – Electricity				
Residential	357,306	12.7%	405,185	12.3%
Commercial/industrial	669,297	23.9%	773,772	23.4%
Build Environment Energy Use – Natural Gas				
Residential	204,976	7.3%	200,261	6.1%
Commercial/industrial	187,152	6.7%	237,028	7.2%
Mobile Emissions				
On-road transportation	1,139,674	40.6%	1,379,744	40.8%
Airport	1,540	0.1%	2,728	0.1%
Rail	27,524	1.0%	51,245	1.6%
Solid waste	218,432	7.8%	254,610	7.7%
Total	2,805,901	100.0%	3,304,673	100%

Source: City of Riverside 2010.

Potential Effects of Human Activity on Climate Change

According to CARB, some of the potential impacts in California of global warming may include loss of snow pack, sea level rise, more extreme heat days per year, more high O_3 days, more large forest fires, and more drought years (CARB 2006). Several recent studies have attempted to explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that climate scientists' understanding of the complex global climate system and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on such a localized scale. Substantial work has been done at the international and national level to evaluate climatic impacts, but far less information is available on regional and local impacts.

The primary effect of global climate change has been a rise in average global tropospheric temperature of 0.2°C per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using emission rates from the year 2000 shows that further warming would occur, which would induce further changes in the global climate system during the current century. Changes to the global climate system and ecosystems and to California would include, but would not be limited to, the following:

- The loss of sea ice and mountain snowpack resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (IPCC 2007)
- A rise in global average sea level primarily due to thermal expansion and melting of glaciers and ice caps and the Greenland and Antarctic ice sheets (IPCC 2007)
- Changes in weather that include widespread changes in precipitation, ocean salinity, and wind patterns and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones (IPCC 2007)
- A decline of Sierra snowpack, which accounts for approximately half of the surface water storage in California, by 70% to as much as 90% over the next 100 years (CAT 2006)
- An increase in the number of days conducive to O_3 formation by 25% to 85% (depending on the future temperature scenario) in high O_3 areas of Los Angeles and the San Joaquin Valley by the end of the 21st century (CAT 2006)
- A high potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level (CAT 2006).

Related Regulations

Regulation of GHGs in the United States and California is relatively recent, beginning early in the 2000s. In the absence of major federal efforts, California's former governor, Arnold Schwarzenegger, and the legislature took initiatives to establish goals for reductions of GHG emissions in California and to prescribe a regulatory approach to ensuring that the goals would be met. The federal government, primarily through actions of the EPA, has also begun to regulate GHG emissions, although not as comprehensively. This section provides a brief foundation for these regulatory efforts and discusses the key federal and state regulatory efforts that could apply to development under the project and the users of such development.

Federal

Massachusetts v. EPA. On April 2, 2007, in *Massachusetts v. EPA*, the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The administrator found that elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The administrator further found the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act. On December 19, 2007, President George W. Bush signed the Energy Independence and Security Act of 2007. Among other key measures, the act would do the following, which would aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022
2. Set a target of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by model year 2020 and direct 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

3. 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.

EPA and NHTSA Joint Final Rule for Vehicle Standards. On April 1, 2010, the EPA and NHTSA announced a joint final rule to establish a national program consisting of new standards for light-duty vehicles model years 2012 through 2016. The joint rule is intended to reduce GHG emissions and improve fuel economy. The EPA is finalizing the first-ever national GHG emissions standards under the Clean Air Act, and NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act (EPA and NHTSA 2010). This final rule follows the EPA and Department of Transportation's joint proposal on September 15, 2009, and is the result of President Obama's May 2009 announcement of a national program to reduce GHGs and improve fuel economy (EPA 2011). The final rule became effective on July 6, 2010 (EPA and NHTSA 2010).

The EPA GHG standards require new passenger cars, light-duty trucks, and medium-duty passenger vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile in model year 2016, equivalent to 35.5 mpg if the automotive industry were to meet this CO_2 level through fuel economy improvements alone. The CAFE standards for passenger cars and light trucks will be phased in between 2012 and 2016, with the final standards equivalent to 37.8 mpg for passenger cars and 28.8 mpg for light trucks, resulting in an estimated combined average of 34.1 mpg. Together, these standards will cut GHG emissions by an estimated 960 MMT and save 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program. The rules will simultaneously reduce GHG emissions, improve energy security, increase fuel savings, and provide clarity and predictability for manufacturers (EPA 2011).

In August 2012, the EPA and NHTSA approved a second round of GHG and CAFE standards for model years 2017 and beyond (EPA and NHTSA 2012). These standards will reduce motor vehicle GHG emissions to 163 grams of CO_2 per mile, which is equivalent to 54.5 mpg if this level were achieved solely through improvements in fuel efficiency, for cars and light-duty trucks by model year 2025. A portion of these improvements, however, will likely be made through reductions in air conditioning leakage and through use of alternative refrigerants, which would not contribute to fuel economy. The first phase of the CAFE standards (for model year 2017 to 2021) is projected to require, on an average industry fleet-wide basis, a range from 40.3 to 41.0 mpg in model year 2021. The second phase of the CAFE program (for model years 2022 to 2025) is projected to require, on an average industry fleet-wide basis, a range

from 48.7 to 49.7 mpg in model year 2025. The second phase of standards has not been finalized due to the statutory requirement that the NHTSA set average fuel economy standards not more than 5 model years at a time. The regulations also include targeted incentives to encourage early adoption and introduction into the marketplace of advanced technologies to dramatically improve vehicle performance, including the following:

- Incentives for electric vehicles, plug-in hybrid electric vehicles, and fuel-cell vehicles
- Incentives for hybrid technologies for large pickup trucks and for other technologies that achieve high fuel economy levels on large pickup trucks
- Incentives for natural gas vehicles
- Credits for technologies with potential to achieve real-world GHG reductions and fuel economy improvements that are not captured by the standard test procedures.

State

Title 24. Although not originally intended to reduce GHG emissions, California's Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CCR 6) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy-efficiency technologies and methods. The premise for the standards is that energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for space and water heating) results in GHG emissions. Therefore, increased energy efficiency in buildings results in relatively lower rates of GHG emissions on a building-by-building basis. However, 24 CCR 6 does not apply to hospitals. Title 24 may be applicable to land uses that would be developed during Phase IIc as ancillary RCH uses, though not exclusive hospital land uses.

Assembly Bill 1493. In response to the transportation sector accounting for more than half of California's CO_2 emissions, Assembly Bill (AB) 1493 (Pavley) was enacted on July 22, 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

Before these regulations could go into effect, the EPA had to grant California a waiver under the federal Clean Air Act, which ordinarily preempts state regulation of motor vehicle

emission standards. The waiver was granted by Lisa Jackson, the EPA administrator, on June 30, 2009. On March 29, 2010, the CARB executive officer approved revisions to the motor vehicle GHG standards to harmonize the state program with the national program for 2012–2016 model years (see EPA and NHTSA Joint Final Rule for Vehicle Standards). The revised regulations became effective April 1, 2010.

Executive Order S-3-05. In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The executive order established the following goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050. The California Environmental Protection Agency secretary is required to coordinate efforts of various agencies to collectively and efficiently reduce GHGs. The Climate Action Team (CAT) is responsible for implementing global warming emissions reduction programs. Representatives from several state agencies compose the CAT. Under the executive order, the California Environmental Protection Agency secretary is directed to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The CAT fulfilled its initial report requirements through the 2006 *Climate Action Team Report to Governor Schwarzenegger and the Legislature* (CAT 2006).

The 2009 *Climate Action Team Biennial Report* (CAT 2010a), published in April 2010, expands on the policy outlined in the 2006 assessment. The 2009 report provides new information and scientific findings regarding the development of new climate and sea level projections using new information and tools that have recently become available and evaluates climate change within the context of broader social changes, such as land use changes and demographics. The 2009 report also identifies the need for additional research in several different aspects that affect climate change in order to support effective climate change strategies. The aspects of climate change determined to require future research include vehicle and fuel technologies, land use and smart growth, electricity and natural gas, energy efficiency, renewable energy and reduced carbon energy sources, low GHG technologies for other sectors, carbon sequestration, terrestrial sequestration, geologic sequestration, economic impacts and considerations, social science, and environmental justice.

Subsequently, the 2010 *Climate Action Team Report to Governor Schwarzenegger and the California Legislature* (CAT 2010b) reviews past Climate Action Milestones including voluntary reporting programs, GHG standards for passenger vehicles, the Low Carbon Fuel Standard (LCFS), a statewide renewable energy standard, and the cap-and-trade program. Additionally, the 2010 report includes a cataloguing of recent research and ongoing projects; mitigation and adaptation strategies identified by sector (e.g., agriculture, biodiversity, electricity, and natural gas); actions that can be taken at the regional, national, and

international levels to mitigate the adverse effects of climate change; and today's outlook on future conditions. The 2010 report also focuses on case studies involving collaborative efforts among multiple agencies on research projects related to climate change and policy development.

Assembly Bill 32. In furtherance of the goals established in Executive Order S-3-05, the legislature enacted AB 32 (Núñez and Pavley), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. The GHG emissions limit is equivalent to the 1990 levels, which are to be achieved by 2020.

CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions. This program will be used to monitor and enforce compliance with the established standards. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

The first action under AB 32 resulted in the adoption of a report listing early-action GHG emission reduction measures on June 21, 2007. The early actions include three specific GHG control rules. On October 25, 2007, CARB approved an additional six early-action GHG reduction measures under AB 32. The three original early-action regulations meeting the narrow legal definition of "discrete early action GHG reduction measures" consist of the following:

1. A low-carbon fuel standard to reduce the "carbon intensity" of California fuels
2. Reduction of refrigerant losses from motor vehicle air conditioning system maintenance to restrict the sale of "do-it-yourself" automotive refrigerants
3. Increased methane capture from landfills to require broader use of state-of-the-art methane capture technologies.

The additional six early-action regulations, which were also considered "discrete early action GHG reduction measures," consist of the following:

1. Reduction of aerodynamic drag, and thereby fuel consumption, from existing trucks and trailers through retrofit technology
2. Reduction of auxiliary engine emissions of docked ships by requiring port electrification
3. Reduction of PFC emissions from the semiconductor industry

4. Reduction of propellants in consumer products (e.g., aerosols, tire inflators, and dust removal products)
5. Requirements that all tune-up, smog check and oil change mechanics ensure proper tire inflation as part of overall service in order to maintain fuel efficiency
6. Restriction on the use of SF_6 from non-electricity sectors if viable alternatives are available.

As required under AB 32, on December 6, 2007, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 MMT CO_2E. In addition to the 1990 emissions inventory, CARB also adopted regulations requiring mandatory reporting of GHGs for the large facilities that account for 94% of GHG emissions from industrial and commercial stationary sources in California. About 800 separate sources fall under the new reporting rules and include electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and other industrial sources that emit CO_2 in excess of specified thresholds.

On December 11, 2008, CARB approved the *Climate Change Proposed Scoping Plan: A Framework for Change* (Scoping Plan; CARB 2008) to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and CAT early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program.

The key elements of the Scoping Plan include the following:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewables energy mix of 33%
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the LCFS
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

Senate Bill 1368. In September 2006, Governor Schwarzenegger signed Senate Bill (SB) 1368, which requires the California Energy Commission (CEC) to develop and adopt regulations for GHG emissions performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the California Public Utilities Commission (CPUC). This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

Executive Order S-1-07. Issued on January 18, 2007, Executive Order S-1-07 sets a declining LCFS for GHG emissions measured in CO_2E grams per unit of fuel energy sold in California. The target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste. In addition, the LCFS would drive the availability of plug-in hybrid, battery electric, and fuel-cell power motor vehicles. The LCFS is anticipated to lead to the replacement of 20% of the fuel used in motor vehicles with alternative fuels by 2020.

Senate Bill 375. In August 2008, the legislature passed, and on September 30, 2008, Governor Schwarzenegger signed SB 375 (Steinberg), which addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. Regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, as determined by CARB, are required to consider the emission reductions associated with vehicle emission standards (see Senate Bill 1493), the composition of fuels (see Executive Order S-1-07), and other CARB-approved measures to reduce GHG emissions. Regional metropolitan planning organizations will be responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a development plan for the region, which, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If an SCS is unable to achieve the GHG reduction target, a metropolitan planning organization must prepare an alternative planning strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. SB 375 provides incentives for streamlining California Environmental Quality Act (CEQA) requirements by substantially reducing the requirements for "transit priority projects," as specified in SB 375, and eliminating the analysis of the impacts of certain residential projects on global warming and the growth-inducing impacts of those projects

when the projects are consistent with the SCS or alternative planning strategy. On September 23, 2010, CARB adopted the SB 375 targets for the regional metropolitan planning organizations. The targets for the Southern California Association of Governments (SCAG) are an 8% reduction in emissions per capita by 2020 and a 13% reduction by 2035. SCAG prepared its RTP/SCS, which was adopted by the SCAG Regional Council on April 4, 2012. The plan quantified a 9% reduction by 2020 and a 16% reduction by 2035. On June 4, 2012, the CARB executive officer issued an executive order accepting SCAG's quantification of GHG reductions and the determination that the SCS would achieve the GHG emission reduction targets established by CARB.

Executive Order S-13-08. Governor Schwarzenegger issued Executive Order S-13-08 on November 14, 2008. The executive order is intended to hasten California's response to the impacts of global climate change, particularly sea level rise. It directs state agencies to take specified actions to assess and plan for such impacts. It directs the California Natural Resources Agency (CNRA), in cooperation with the California Department of Water Resources, CEC, California's coastal management agencies, and the Ocean Protection Council, request that the National Academy of Sciences prepare a Sea Level Rise Assessment Report by December 1, 2010. The Ocean Protection Council, California Department of Water Resources, and CEC, in cooperation with other state agencies are required to conduct a public workshop to gather information relevant to the Sea Level Rise Assessment Report. The Business, Transportation, and Housing Agency was ordered to assess within 90 days of the order the vulnerability of the state's transportation systems to sea level rise. The Governor's Office of Planning and Research (OPR) and the CNRA are required to provide land use planning guidance related to sea level rise and other climate change impacts. The order also requires the other state agencies to develop adaptation strategies by June 9, 2009, to respond to the impacts of global climate change that are predicted to occur over the next 50 to 100 years. A discussion draft adaptation strategies report was released in August 2009, and the final adaption strategies report was issued in December 2009. To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: public health, ocean and coastal resources, water supply and flood protection, agriculture, forestry, biodiversity and habitat, and transportation and energy infrastructure. The report then recommends strategies and specific responsibilities related to water supply, planning and land use, public health, fire protection, and energy conservation.

Senate Bill X1 2. On April 12, 2011, Governor Jerry Brown signed SB X1 2 in the First Extraordinary Session, which would expand the Renewable Portfolio Standard (RPS) by establishing a goal of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill

gas, ocean wave, ocean thermal, or tidal current and that meets other specified requirements with respect to its location. In addition to the retail sellers covered by SB 107, SB X1 2 adds local publicly owned electric utilities to the RPS. By January 1, 2012, the CPUC is required to establish the quantity of electricity products from eligible renewable energy resources to be procured by retail sellers in order to achieve targets of 20% by December 31, 2013; 25% by December 31, 2016; and 33% by December 31, 2020. The statute also requires that the governing boards for local publicly owned electric utilities establish the same targets and that the governing boards be responsible for ensuring compliance with these targets. The CPUC will be responsible for enforcement of the RPS for retail sellers, while the CEC and CARB will enforce the requirements for local publicly owned electric utilities.

Local

City of Riverside Green Action Plan. In July 2005, the City of Riverside assembled a Clean and Green Task Force that developed guidelines for a cleaner, greener, and more sustainable city. Its sustainability policy statement highlighted the following categories: save water, keep it clean, make it solar, make it shady, clean the air, save fuel, make it smart, and build green. The task force created a 38-point Clean and Green Sustainable Riverside Action Plan (Green Action Plan) to transform the policy statement into an implementation plan. The Green Action Plan is an evolving document that outlines ways to improve air quality, reduce traffic congestion, increase accessibility and use of parks, and otherwise preserve the environment (Green Riverside 2012). The first Riverside Green Action Plan was approved by the City Council in December 2007. To ensure that the tasks of the Green Action Plan would be carried out successfully, the City formed a Green Accountability Performance Committee, and within just 2 years, nearly all of the plan's 38 tasks had been accomplished. In February 2009, the California Department of Conservation introduced Riverside as California's First Emerald City, and in September 2009, the City introduced a Green Action Plan–Emerald City update. The latest Green Action Plan (2012) includes 19 goals and more than 50 tasks within the following eight areas: energy, GHG emissions, waste, urban design, urban nature, transportation, water, and healthy communities.

There are two goals under the Green Action Plan GHG emissions focus area: Goal 4 and Goal 5. One action under Goal 4 is to establish the 1990 GHG emissions baseline for the City by the end of 2010 and every 5 years after. Goal 5 aims to create a climate action plan to reduce GHG emissions to 7% below the 1990 City baseline, utilizing the City boundaries as defined in 2008. In 2010, the City established the 1990 emissions baseline (City of Riverside 2010). The remaining actions under Goal 4 (to develop and incorporate mitigation measures in the Green Action Plan that provide verifiable GHG savings by 2010 and work with the Western Riverside Council of Government's Climate Action Plan team to update the inventories in compliance with the audit leveraging off the Western Riverside Council of Governmental Regional

Climate Action Plan Grant) have not been completed. Goal 5 has not been completed, and the tasks under Goal 5 that involve identifying mitigation measures to meet the GHG reduction goal have also not been accomplished at this time.

4.5.2 Thresholds of Significance

OPR Guidance

The OPR's Technical Advisory titled *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review* states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008).

Cumulative Nature of Climate Change

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project in the South Coast Air Basin, such as the project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change.

While the project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally believed that an individual project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory as scientific uncertainty regarding the significance a project's individual and cumulative effects on global climate change remains.

Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). This approach is consistent with that recommended by the CNRA, which noted in its Public Notice for the proposed CEQA amendments that the evidence before it indicates that in most cases, the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009a). Similarly, the Final Statement of Reasons for Regulatory

Action on the CEQA Amendments confirm that an EIR or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009b). Accordingly, further discussion of the project's GHG emissions and their impact on global climate are addressed below.

CEQA Guidelines

The CNRA adopted amendments to the CEQA Guidelines on December 30, 2009, which became effective on March 18, 2010. With respect to GHG emissions, the amended CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (14 CCR 15000 et seq.). Section 15064.4(b) provides that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). Similarly, the revisions to Appendix G, *Environmental Checklist Form*, which is often used as a basis for lead agencies' selection of significance thresholds, do not prescribe specific thresholds. Rather, the CEQA Guidelines establish two new CEQA thresholds related to GHGs, and these will therefore be used to discuss significance of project impacts:

- Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Accordingly, the CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009c).

Status of Proposed SCAQMD Thresholds

The South Coast Air Quality Management District (SCAQMD) has not adopted recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects. In October 2008, SCAQMD presented to the Governing Board the *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008a). The guidance document was not adopted or approved by the Governing Board. This document, which builds on the previous guidance prepared by CAPCOA (discussed previously) explored various approaches for establishing a significance threshold for GHG emissions. Among the concepts discussed, the document considered a "de minimis," or screening, threshold to "identify small projects that would not likely contribute to significant cumulative GHG impacts" (SCAQMD 2008b). As further explained in this document, "Projects with GHG emissions less than the screening level are considered to be small projects, that is, they would not likely be considered cumulatively considerable" (SCAQMD 2008b). The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. The SCAQMD proposed three tiers of compliance that may lead to a determination that impacts are less than significant, including the following:

1. Projects with GHGs within budgets set out in approved regional plans to be developed under the SB 375 process
2. Projects with GHG emissions that are below designated quantitative thresholds:
    a. Industrial projects with an incremental GHG emissions increase that falls below (or is mitigated to be less than) 10,000 MT CO_2E per year
    b. Commercial and residential projects with an incremental GHG emissions increase that falls below (or is mitigated to be less than) 3,000 MT CO_2E per year, provided that such projects also meet energy efficiency and water conservation performance targets that have yet to be developed
3. Projects that purchase GHG offsets that, either alone or in combination with one of the three tiers mentioned above, achieve the target significance screening level.

From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The most recent working group meeting on September 28, 2010 (SCAQMD 2010), proposed two options lead agencies can select from to screen thresholds of significance for GHG emissions in residential and commercial projects, and proposes to expand the industrial threshold to other lead agency industrial projects. Option 1 proposes a threshold of 3,000 MT CO_2E per year for all residential and commercial projects and Option 2 proposes a threshold value by land use type where the numeric threshold is 3,500 MT CO_2E per year for residential projects, 1,400 MT CO_2E per year for commercial projects, and 3,000 MT CO_2E per year for mixed use projects (SCAQMD 2010). The SCAQMD has not considered thresholds for institutional projects such as this project. Further, the SCAQMD has not formally adopted these thresholds mentioned above. Therefore, the City has concluded that there are no numeric emission-based thresholds by which the City could evaluate whether the project emissions would exceed a threshold of significance as indicated in Section 15064.4(b)(2) of the CEQA Guidelines.

4.5.3 Project Elements That Can Reduce Impacts

The following project design features will be incorporated into the project as a means to reduce impacts related to GHG emissions; however, methods to quantify reductions from implementation of most of the project design features listed in Table 4.5-3 have not been developed yet. The City will condition and review project plans to ensure these measures are incorporated.

Table 4.5-3
Project Design Features – GHGs

Building Component	Design Feature
Roof	Single-ply thermoplastic roof membrane over 5/8-inch exterior gypsum sheathing over rigid insulation over metal deck with lightweight concrete fill.
	Minimum R-30 insulation.
	Certified compliant membrane with CEC definition of a cool roof. Based on G410-20 feltback membrane by Sika Sarnafil, Inc.; minimum 80 mil, white.
	Initial Solar Reflectance: Minimum measured initial solar reflectance value of 0.85 plus or minus 0.02, when tested in compliance with American Society for Testing and Materials (ASTM) C 1549, ASTM E 903, or ASTM E 1918.
	3-Year Aged Solar Reflectance: Minimum measured solar reflectance value of 0.60, when maintained under normal conditions and tested in compliance with ASTM C 1549, ASTM E 903, or ASTM E 1918.
Exterior wall	Type 1: Cast stone over continuous rigid insulation on fluid applied air/vapor barrier over 5/8-inch exterior gypsum sheathing over 6-inch metal stud framing with bat insulation; total system minimum R-19.
	Type 2: 3-inch insulated composite metal panel over fluid applied water protection over 5/8-inch exterior gypsum sheathing over 9-inch metal stud framing with bat insulation; total system minimum R-19. Type 3: 6-inch architectural precast concrete over 6-inch metal stud framing, used in non-conditioned garage stair tower.

Table 4.5-3
Project Design Features – GHGs

Building Component	Design Feature
Glazing	Vision Glass Insulating Glazing Units (IGUs): Design is based on PPG Solarban R100 solarblue tinted over clear glass (which has visible light-exterior reflectance of 15% (Viracon 2012)).
	Winter Nighttime Center-of-Glass (COG) U-Factor: Maximum 0.29 BTU per hour per square foot per degree Fahrenheit.
	Summer Daytime COG U-Factor: Maximum 0.27 BTU per hour per square foot per degree Fahrenheit.
	Total Shading Coefficient: Maximum 0.22, when calculated using a spectral data file determined in accordance with NFRC 300 and NFRC Verification Procedures.
	Total Solar Heat Gain Coefficient: Maximum 0.19, when determined in compliance with NFRC 200.
	Ceramic-Coated Spandrel Glass IGUs: Design is based on 1-inch VE1-42 Insulating HS/HS Spandrel by Viracon (which has visible light-exterior reflectance of 15% (Viracon 2012)).
	Winter Nighttime COG U-Factor: Maximum 0.29 BTU per hour per square foot per degree Fahrenheit.
	Summer Daytime COG U-Factor: Maximum 0.27 BTU per hour per square foot per degree Fahrenheit.
Lighting systems – interior (interior lighting systems will not be necessary in all rooms)	Provide individual lighting controls for minimum of 90% of building occupants to enable adjustments to suit individual task needs and preferences.
	Provide dimming or multilevel switching for all spaces larger than 100 square feet in which the connected lighting load exceeds 0.8 watts (W) per square foot.
	Provide time switches, photoelectric switches, occupancy sensors, and light sensors.
	Provide dimming controls.
	LED exit signs used.
Exterior lighting	55 W compact fluorescent lamp, 39 W LED lamp pole lights, 39 W compact fluorescent bollard light.
Indoor building water use	Toilets – 1.28 gallons/flush. Not all toilets will comply with the indoor building water use.
	Urinals – 1.0 pints/flush.
	Faucets – 0.5 gallons/minute. Not all faucets will comply with the indoor building water use.
	Showers – 2.5 gallons/minute.
Outdoor water use	Irrigation – Fully automatic, electronically controlled irrigation using low-flow spray heads, rotors, and drip irrigation technology.
	Irrigation Control – Controllers equipped with rain-sensing shutoff switches.
	Water Usage – Modify plant palette to use water-efficient, drought-tolerant, naturalized plant materials.

As discussed in Section 5.0, Circulation, of the Specific Plan, transportation demand management is a strategy designed to reduce single occupancy vehicle trips during peak hours and is an ongoing program at RCH. Transportation demand management seeks to shift commuters to transportation modes other than cars and encourage ride-sharing and carpooling programs. RCH will continue to implement two current ride-sharing rewards programs in coordination with Riverside Transit Agency. Both programs are promoted through informational flyers at RCH and at new hire orientation. A transportation demand management coordinator is available on the RCH campus to facilitate the distribution of information and make sure it remains current. The current transportation demand

management program for the hospital includes the following two measures, which would be continued under the project:

- 2 Dollars/Day Program: Participants log their modes of commuting for 3 months and are awarded points for using alternative modes of transportation, such as the Metrolink, bus, bike routes, and carpooling. The program enables employees to connect for carpools. At the end of the 3-month period, participants are awarded gift cards based on the points accrued.
- Ride-Share Plus Program: Participants are provided with tools for carpooling, bicycling, and other alternative modes of transportation. Participants in this program have usually completed the 2 Dollars/Day Program and continue to log hours to accumulate rewards, such as a coupon book (valued at $1,000). The coupon book offers savings at local businesses as well as the ability to register the coupon book online to access discounts at more than 135,000 merchants nationwide.

4.5.4 Environmental Impacts Before Mitigation

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

Global Climate Change and CEQA

Global climate change is also fundamentally different from other types of air quality analysis under CEQA, in which the impacts are all measured within, and are linked to, a discrete region or area. Instead, a global climate change analysis must be conducted on a global level, rather than within the typical local or regional setting, and requires consideration of not only emissions from the project under consideration, but also the extent of the displacement, translocation, and redistribution of emissions. In the usual context, where air quality is linked to a particular location or area, it is appropriate to consider the creation of new emissions in that specific area to be an environmental impact whether or not the emissions are truly “new” to the overall planet. When the impact is a global one, however, it makes more sense to consider whether the emissions really are new emissions, or are merely being moved from one place to another. For example, the approval of this project does not necessarily create new automobile drivers—the primary source of a land use project’s emissions. Rather, due to the “relocation” factor, the expansion of RCH does not necessarily create new trips, but instead redistributes existing mobile emissions that would be going to a hospital somewhere in the region already. Accordingly, the use of models that measure overall emissions increases without accounting for existing emissions will substantially overstate the impact of the development project on global warming. This makes an accurate analysis of GHG emissions substantially different from other air quality impacts, where the “addition” of redistributed emissions to a new locale can make a substantial difference to overall air quality.

Project-Level Elements

Construction Emissions

Construction of the project would result in GHG emissions that are primarily associated with use of off-road construction equipment and on-road construction and worker vehicles. The California Emissions Estimator Model (CalEEMod) was used to calculate the annual GHG emissions based on the construction scenario described in Section 4.2, Air Quality.

On-site sources of GHG emissions include off-road equipment; off-site sources include hauling and vendor (delivery) trucks and worker vehicles. Table 4.5-4, Phase I Estimated Construction GHG Emissions, presents construction emissions for the project from Year 2014 to Year 2017 from emission sources.

Table 4.5-4
Phase I Estimated Annual Construction GHG Emissions

Phase I	MT CO_2	MT CH_4	MT N_2O	MT CO_2E
Year 2014	284.64	0.05	0.00	285.68
Year 2015	440.63	0.08	0.00	442.29
Year 2016	476.84	0.08	0.00	478.60
Year 2017	31.86	0.00	0.00	32.06
Total	1,233.97	0.21	0.00	1,238.63

Notes: See Appendix B for detailed results.
Phase I Estimated Annual Construction GHG Emissions does not include the new parking structure (Building O) or medical office building (Building P).
MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2E = carbon dioxide equivalent

As shown in Table 4.5-4, the estimated total GHG emissions during Phase I construction would be approximately 1,239 MT CO_2E. Additional details regarding these calculations are provided in Appendix B.

Table 4.5-5, Phase IIa Estimated Construction GHG Emissions, presents construction emissions for the project from Year 2017 to Year 2018 from emission sources.

Table 4.5-5
Phase IIa Estimated Annual Construction GHG Emissions

Phase IIa	MT CO_2	MT CH_4	MT N_2O	MT CO_2E
Year 2017	307.58	0.06	0.00	308.73
Year 2018	191.48	0.04	0.00	192.23
Total	499.06	0.09	0.00	500.96

Notes: See Appendix B for detailed results.
Phase IIa Estimated Annual Construction GHG Emissions does not include the new parking structure (Building O) or medical office building (Building P).
MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2E = carbon dioxide equivalent

As shown in Table 4.5-5, the estimated total GHG emissions during Phase IIa construction would be approximately 501 MT CO_2E. Additional details regarding these calculations are provided in Appendix B.

Table 4.5-6, Phase IIb Estimated Construction GHG Emissions, presents construction emissions for the project from Year 2024 to Year 2027 from emission sources.

Table 4.5-6
Phase IIb Estimated Annual Construction GHG Emissions

Phase IIa	MT CO_2	MT CH_4	MT N_2O	MT CO_2E
Year 2024	195.96	0.06	0.00	197.16
Year 2025	616.66	0.07	0.00	618.19
Year 2026	538.92	0.07	0.00	540.39
Year 2027	448.62	0.07	0.00	449.99
Total	1,800.16	0.27	0.00	1,805.73

Notes: See Appendix B for detailed results.
Phase IIb Estimated Annual Construction GHG Emissions does not include the new parking structure (Building O) or medical office building (Building P).MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2E = carbon dioxide equivalent

As shown in Table 4.5-6, the estimated total GHG emissions during Phase IIb construction would be approximately 1,806 MT CO_2E. Additional details regarding these calculations are provided in Appendix B.

Program-Level Elements

Phase IIc would occur sometime between 2030 and 2043. Long-range development as part of Phase IIc of the project could include future acute care expansions, parking structures, or other ancillary uses. Please see Section 2.3.2 of the Draft EIR for a list of potential Phase IIc uses. However, at this time, only the general location of the proposed uses under Phase IIc is known; there is no information on the approximate size of construction or possible demolition activities that could occur under Phase IIc. The project has not yet been defined for Phase IIc; therefore, mitigation measure **MM AQ-2**, outlined in Section 4.2 of the EIR, would be implemented, requiring an environmental review process for future discretionary permits associated with Phase IIc. As required by **MM AQ-2**, an air quality technical report shall be prepared for development proposed under Phase IIc, and the analysis would include project-estimated GHG emissions relative to significance thresholds determined at that time.

Operational Impacts

In accordance with Section 15064.4(b)(1) of the CEQA Guidelines, the following section evaluates whether the project would increase or reduce GHG emissions as compared to the existing environmental setting (baseline).

Baseline Operational GHG Emissions Summary

Existing (baseline) operation of the hospital results in GHG emissions from the following sources: (1) energy use (natural gas usage, boilers, and emergency generators, and generation of electricity consumed by the hospital); (2) vehicular traffic to and from the RCH site generated by patients, visitors, physicians and staff, and emergency vehicles; (3) solid waste generation; and (4) generation of electricity associated with water supply and treatment and with wastewater treatment.

Annual GHG emissions from these sources were estimated using CalEEMod. The estimation of GHG emissions generated under existing conditions was based on land use types (i.e., hospital with licensed beds, hospital without beds, and medical office building) and respective area (i.e., square footage) in operation at the time the EIR analysis was prepared, in addition to the medical office building (Building P) that is currently under construction and anticipated to be completed prior to Phase I construction. Parking structures do not generate vehicle trips and are not included as land uses in the emissions calculations; however, GHG emissions associated with electricity use in the parking structures are reflected in the electricity use by the hospital campus.

The historical annual average electricity usage for 2009 to 2012 was used to develop a custom electricity usage rate in units of kilowatt-hour per square foot of hospital buildings as an input to CalEEMod. The CalEEMod default electricity usage was applied to the medical office buildings. Annual electricity emissions were estimated using the emission factors for Riverside Public Utilities, which would provide electricity for the project. Vehicle trip generation was based on the rates by land use type in the Traffic Impact Analysis for the project (Kimley-Horn 2014; see Appendix I to this EIR).

Additionally, the existing operation of the hospital reflects transit accessibility as it is located approximately 0.7 mile from the Metrolink and a pedestrian network that provides better pedestrian accessibility from the project site off site. RCH will continue to implement two ride-sharing rewards programs discussed above in Section 4.5.3.

The existing (baseline) operational GHG emissions with the medical office building (Building P) from electricity usage, motor vehicles, solid waste generation, water consumption, and wastewater treatment associated with the project are shown in Table 4.5-7, Baseline Estimated Operational GHG Emissions. Additional details regarding these calculations are provided in Appendix B.

Table 4.5-7
Baseline Estimated Operational GHG Emissions

	MT CO_2/year	MT CH_4/year	MT N_2O/year	MT CO_2E/year
Energy (natural gas and electricity)	12,596	0.27	0.10	12,634
Mobile sources	13,601	0.55	0.00	13,613
Solid waste	939	55.51	0.00	2,105
Water supply and wastewater	706	0.11	0.06	726
Baseline total	27,842	56.44	0.16	29,078

Notes: See Appendix B for detailed results.
MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2E =carbon dioxide equivalent

Project- and Program-Level Elements

Project Operational GHG Emissions Summary

The combination of Phases I, IIa, IIb, and IIc would increase the size of the hospital and number of hospital licensed beds to 600,[2] as described in Section 2.0 of the EIR. As a result of the new construction, motor vehicle trips, stationary sources, energy usage, water usage, and wastewater and solid waste generation would increase along with their associated GHG emissions. As noted previously, specific plans have not been developed for Phase IIc land uses.

Using CalEEMod and other calculations, Phase I operational GHG emissions from electricity usage, motor vehicles, emergency generators, solid waste generation, water consumption, and wastewater treatment associated with the project were estimated as shown in Table 4.5-8, Phase I Estimated Operational GHG Emissions. Additional details regarding these calculations are provided in Appendix B.

Table 4.5-8
Phase I Estimated Operational GHG Emissions

	MT CO_2/year	MT CH_4/year	MT N_2O/year	MT CO_2E/year
Energy (natural gas and electricity)	18,902	0.40	0.16	18,960
Mobile sources	15,230	0.51	0.00	15,240
Emergency generators	111	—	—	114
Solid waste	917	54.21	0.00	2,056
Water supply and wastewater	793	0.12	0.07	817
Phase I total	35,953	55.24	0.23	37,187
Baseline total[a]	27,842	56.44	0.16	29,078
Net change	8,111	(1.20)	0.07	8,109

Notes: See Appendix B for detailed results.
MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2E = carbon dioxide equivalent
[a] Baseline emissions include the medical office building (Building P) that is currently under construction. Parking structures were not included in operational emissions calculations, because parking structures generally do not generate vehicle trips or other substantial sources of GHGs. The motor vehicles utilizing the parking structures and their associated emissions have already been captured from the development on site.

[2] The addition of 38 licensed beds in Phase IIc, to take the campus-wide total to 600 licensed beds, could occur in Phase IIb, if need is demonstrated prior to 2030.

As shown in Table 4.5-8, estimated net change of Phase I of the annual project-generated GHG emissions by 2017 and baseline conditions would be approximately 8,109 MT CO_2E per year as a result of project operations.

Phase IIb operational GHG emissions (including Phase I and Phase IIa buildings) from electricity usage, motor vehicles, solid waste generation, water consumption, and wastewater treatment associated with the project are shown in Table 4.5-9, Phase I, Phase IIa, and Phase IIb Estimated Operational GHG Emissions. Additional details regarding these calculations are provided in Appendix B.

Table 4.5-9
Phase I, Phase IIa, and Phase IIb Estimated Operational GHG Emissions

	MT CO_2/year	MT CH_4/year	MT N_2O/year	MT CO_2E/year
Energy (natural gas and electricity)	34,413	0.73	0.29	34,517
Mobile sources	18,452	0.44	0.00	18,461
Emergency generators	223	—	—	228
Solid waste	1,641	97.00	0.00	3,678
Water supply and wastewater	1,205	0.18	0.10	1,241
Phase IIb total	55,934	98.35	0.39	58,125
Baseline total[a]	27,842	56.44	0.16	29,078
Net change	28,092	41.91	0.23	29,047

Notes: See Appendix B for detailed results.
MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2E = carbon dioxide equivalent
[a] Baseline emissions include the medical office building (Building P) that is currently under construction. Parking structures were not included in operational emissions calculations, because parking structures generally do not generate vehicle trips or other substantial sources of GHGs. The motor vehicles utilizing the parking structures and their associated emissions have already been captured from the development on site.

As shown in Table 4.5-9, the estimated net change of Phase IIb (includes Phase I and Phase IIa buildings) of the annual project-generated GHG emissions by 2030 and baseline conditions would be approximately 29,047 MT CO_2E per year as a result of project operations.

Phase IIc would occur sometime between 2030 and 2043. Long-range development as part of Phase IIc of the project could include future acute care expansions, parking structures, or other ancillary uses. Please see Section 2.3.2 of the EIR for a list of potential Phase IIc uses. However, at this time, only the general location of the Phase IIc is known; there is no information on the approximate size of construction or possible demolition activities under Phase IIc. The project has not yet been defined for Phase IIc; therefore, mitigation measure **MM AQ-2** (outlined in Section 4.2 of the EIR) would be implemented, requiring an environmental review process for future discretionary permits for Phase IIc of the project. An air quality technical report shall be prepared, and the analysis would include project-estimated GHG emissions relative to significance thresholds at that time.

As stated above, there is no numeric emissions-based threshold by which the City could evaluate whether the project emissions would exceed a threshold of significance as indicated in Section 15064.4(b)(2) of the CEQA Guidelines. Additionally, the vehicle trips associated with the project are one of the main sources of the GHG emissions. Since the trips to the existing hospital are already occurring, the "new" trips that would be created as a result of the expansion of RCH would occur somewhere in the region anyway, the project has incorporated features designed to reduce GHGs (see Table 4.5-3), and the City has policies in place that address the City's goals to reduce GHGs (as discussed in the following threshold), impacts related to GHG emissions are considered **less than significant**.

Threshold: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Project- and Program-Level Elements

As discussed in Section 4.5.1, the Scoping Plan approved by CARB on December 12, 2008, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Moreover, the Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009b). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., LCFS), among others. While state regulatory measures will ultimately reduce GHG emissions associated with the project through their effect on these sources, no statewide plan, policy, or regulation would be specifically applicable to reductions in GHG emissions from the project.

The City has adopted policies and programs in its General Plan (GP) 2025 to promote the use of clean and renewable energy sources, facilitate alternative modes of transportation and reduce vehicle miles traveled, reduce waste, conserve water, and promote the efficient and sustainable use of energy. The project's consistency with GP 2025 objectives and policies is evaluated in Section 4.8, Land Use and Planning, of this EIR.

In addition, transit accessibility, improved connection between the project site and off-site areas, and ridesharing incentives discussed previously would help reduce potential GHG emissions from operation of the project. Incorporation of the project design features listed in Table 4.5-3 would reduce GHG impacts.

The City of Riverside has not adopted a GHG reduction plan, as specified in California Code of Regulations, Title 14, Section 15183.5(b), that would apply to the GHG emissions associated with the project. Although the City's Clean and Green Sustainable Riverside Action Plan is not a plan adopted for the purpose of reducing GHG emissions, the latest Green Action Plan (2012) includes goals to address citywide GHG emissions. Many of the goals will require actions by the City (e.g., adoption of appropriate regulations or ordinances or installation of photovoltaic solar facilities) rather than residential and commercial land uses. Goals under the GHG emissions focus area include establishing the GHG emissions baseline for the City of Riverside (Goal 4) and creating a climate action plan to reduce GHG emissions to 7% below the 1990 City baseline, utilizing the City boundaries as defined in 2008 (Goal 5). These goals have not been completed to date, and the tasks under these goals that involve identifying mitigation measures to meet the GHG reduction goal have also not been accomplished at this time. As there are no completed Green Action Plan goals or tasks or an adopted climate action plan that would apply to the project, no conflict would occur. Nonetheless, the project would be consistent with several of the goals and actions included in the Green Action Plan, as summarized in Table 4.5-10, Consistency with Green Action Plan Goals.

Table 4.5-10
Consistency with Green Action Plan Goals

Green Action Plan Goal/Action	Project Feature
Goal 2 – Save 1% of communities load annually based on a 2004 baseline, and reduce the City's peak electrical load demand by 10% overall. Action – Increase the energy efficiency of local residential and commercial structures.	Implement energy efficiency design features (see Table 4.5-3).
Goal 6 – Implement programs to reduce waste, based on the 2007 per capita baseline, by 75% by 2020. Action – Implement the AB 341 program to all commercial businesses and multiple-family units of 5 or more to increase recycling in the City to a measurable goal of 75%. AB 341 has been developed to encourage recycling at commercial businesses.	All non-hazardous solid waste generated from the project site once operational (such as plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard) would be recycled to the greatest extent possible, with a goal of 75%, in compliance with the Integrated Waste Management Act.
Goal 9 – Use specific plans along the Bus Rapid Transit (BRT) corridors and on the transportation hubs to address infra-structure systems, revitalization of urban and community centers, and promote infill and compact development. Action – Amend the Downtown Specific Plan to create incentives for high-density and mixed-use opportunities along the BRT corridor that include greater densities for greener design.	A new specific plan is proposed and includes transportation demand management features, such as bus routes along Magnolia Avenue. A bus stop is located on the corner of 14th Street and Magnolia Avenue, in close proximity to Building A. The new specific plan also addresses public utilities and services.

Table 4.5-10
Consistency with Green Action Plan Goals

Green Action Plan Goal/Action	Project Feature
Goal 10 – Meet the environmentally sensitive goals of the General Plan 2025 specified in the Mitigation Monitoring Program of the Environmental Impact Report, and the Implementation Plan following the timelines set forth in each. Action – Apply urban planning principles that encourage high density, mixed-use, walkable/bikeable neighborhoods, and coordinate land-use and transportation with open space systems	A new specific plan is proposed and includes transportation demand management features, such as a project site bordered by Class II bicycle facilities on all sides and design that encourages pedestrian activity to and from the hospital campus, as well as internally between campus buildings.
Goal 16 – Reduce per capita water usage 20% citywide by 2020. Action – Implement water efficiency, conservation, and education programs to reduce the City's per capita potable water usage by 20% by 2020.	Use low-volume toilets, urinals, faucets, and showers.
Goal 17 – Increase the use of recycled water by 30% by 2020, based on the 2008 baseline. Action – Develop recycling methods and expand existing uses for recycled wastewater by 2015.	Convert central energy plant cooling towers to reclaimed water.

Source: City of Riverside 2012.
Note: Goal numbers refer to the goals in the Green Action Plan.

For the reasons discussed above, the project's GHG impacts would be **less than significant** due to its consistency with local plans and policies.

4.5.5 Mitigation Measures

While applicable to the project's criteria pollutant emissions, mitigation measure **MM AQ-1** would result in a reduction in construction GHG emissions, although the specific reductions cannot be quantified as the effectiveness of these measures is unknown. Furthermore, the project incorporates energy and water conservation measures, which would reduce GHG emissions associated with natural gas and electricity, and RCH implements transportation demand management programs, which reduce vehicle trips and the associated GHG emissions.

4.5.6 Environmental Impacts After Mitigation Is Incorporated

As stated previously, the project's contribution to global GHG emissions and the resultant effect on global climate should be evaluated on a cumulative basis. Under CEQA, a project would have a significant cumulative impact caused by the combined impact of past, present, and probable future projects if its incremental impact represents a "cumulatively considerable" contribution to such cumulative impacts (14 CCR 15064(h)). The project would generate GHG emissions that would contribute to potential cumulative impacts of GHG emissions on climate change.

There are several reasons why the project's contribution to climate change could be considered not cumulatively considerable, including the following:

1. There are no established or adopted numeric thresholds for GHGs in the SCAQMD.
2. Although not quantifiable, the project has incorporated into its design numerous measures that will reduce GHG emissions during construction and operation.
3. Scientific uncertainty remains regarding the significance, on a global scale, of a project's individual and cumulative effects on climate change.

The project will result in **less than significant** impacts after mitigation measures and design features are incorporated.

4.5.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

CAPCOA (California Air Pollution Control Officers Association). 2008. *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.* January 2008.

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4.6 HAZARDS AND HAZARDOUS MATERIALS

The focus of the following discussion and analysis, based on the Initial Study (IS) (Appendix A) and the Notice of Preparation public comment period, focuses on the potentially adverse impacts from implementation of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project) related to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; being located on a hazardous materials list that could create a hazard to the public or the environment; being located within an airport land use plan or within 2 miles of a public airport or public use airport that would result in a safety hazard for people residing or working in the project area; or interfering with an adopted emergency response plan or emergency evacuation plan. During the preparation of the IS, potential impacts related to routine transport, use, or disposal of hazardous materials; accidental release of hazardous materials into the environment; the project site being located within a private airstrip; and potential for wildland fires were found to be either less than significant or had no impact and are therefore not discussed further in this Draft Environmental Impact Report (EIR).

In addition to other documents, the following references were used in the preparation of this section of the EIR:

- *Phase 1 Environmental Site Assessment (ESA), Riverside Community Hospital* (Dudek 2013; included in the EIR as Appendix E)
- *Final Program Environmental Impact Report for the City of Riverside General Plan 2025* (Final GP 2025 PEIR; City of Riverside 2007a).

4.6.1 Setting

Hazardous Materials History

Dudek conducted a Phase 1 ESA in July 2013 (Appendix E) to review the history of the site for any indication of on-site historical or current uses that would have impacted the soil or groundwater with hazardous materials. The Phase 1 ESA, including a review of historical information such as aerial photographs, historical topographic maps, Sanborn Fire Insurance Maps, and city directories provided by Environmental Data Resources Inc. (EDR) was conducted in order to document prior uses of the project site that might indicate sources of contamination from past uses that could have used hazardous materials.

Table 4.6-1 summarizes the land uses and historical development of the site from 1931 to 2012 that could be seen from a review of historical aerial photographs.

Table 4.6-1
Review of Historical Aerial Photographs

Date	Description
1931	A large structure is present in the eastern portion of the project site. Two small structures are present along the northern portion of the project site. The remainder of the site appears to be undeveloped land. The surrounding land in downtown Riverside appears developed. Paved roads bound the site to the north, east, and west.
1938	A large structure is present in the eastern portion of the project site. What appears to be a sports field is present on the southwestern portion of the project site. A structure is present to the south and to the northwest of the project site.
1948	The project site and the remainder of the surrounding properties appear similar to the 1938 aerial photograph.
1953	The large structure present in the eastern portion of the project site appears to have been expanded. Several new structures appear west of the project site. The remainder of the project site and the surrounding properties appear similar to the 1948 aerial photograph.
1967	The previously undeveloped land on the project site is developed as paved parking. The sports field is still present on the southwestern portion of the project site. The large structure present in the eastern portion of the project site appears to have been further expanded. The structure to the south of the project site also appears to have been expanded.
1977	A new structure appears in the center of the project site. The remainder of the project site and surrounding properties appears similar to the 1967 aerial photograph.
1989	The structures located in the eastern and central portions of the project site have been further expanded and merged together. The sports field previously present in the southwestern portion of the project site appears to have been converted into a paved lot. Several sports fields appear to the south of the project site.
1994	The extent of paved lots and structures on the project site appears similar to the 1989 aerial photograph.
2005	A new structure appears on the northern portion of the project site. A paved lot appears on the southern portion of the project site. A structure is located to the southwest of the project site. The remainder of the project site and surrounding properties appears similar to the 1994 aerial photograph.
2006	The project site and surrounding properties appear unchanged from the 2005 aerial photograph.
2009	The project site and surrounding properties appear unchanged from the 2006 aerial photograph.
2010	The project site and surrounding properties appear unchanged from the 2009 aerial photograph.
2012	The project site and surrounding properties appear unchanged from the 2010 aerial photograph.

Source: Appendix E.

Table 4.6-2 summarizes historical uses of the project site and surrounding areas from 1901 through 1980 gathered from a review of topographic maps from 1901, 1942, 1947, 1953, 1967, 1973, and 1980.

Table 4.6-2
Review of Historical Topographic Maps

Date	Scale	Description
1901	1:62,500, 1:125,000, and 1:250,000	The area surrounding the project site is shown as developed with residences and roads.
1942	1:31,680	The density of the development surrounding project site appears to increase from the 1901 topographic map. There appear to be several additional major roads in the vicinity of the project site. The structure on the project site is shown on this topographic map.

Table 4.6-2
Review of Historical Topographic Maps

Date	Scale	Description
1947	1:50,000	The project site and the surrounding area appears unchanged from the 1942 topographic map; however, the network of roads in southern Riverside appears to have improved.
1953	1:24,000	The project site and surrounding properties appear similar to the 1947 topographic map. The structure on the project site is shown on this topographic map.
1967	1:24,000	The project site appears similar to the 1953 topographic map. There appear to be additional structures in the area surrounding the project site.
1973	1:24,000	This topographic map is photo-revised from the 1967 topographic map. The project site appears similar to the 1967 topographic map.
1980	1:24,000	This topographic map is photo-revised from the 1967 topographic map. There appears to be an additional structure on or in the vicinity of the project site. The area surrounding the project site appears similar to the 1967 topographic map.

Source: Appendix E.

Table 4.6-3 summarizes historical uses on the project site and surrounding areas based on a review of historical Sanborn Fire Insurance Maps and city directory listings that were requested from EDR.

Table 4.6-3
Review of Historical Sanborn Fire Insurance Maps and City Directory Listings

Date	Description
1908	The project site is partially visible. Several smaller structures are noted adjacent to the eastern portion of the site. Additionally, a sports field is noted on the project site. Surrounding structures include residences and a laundry business.
1950	The RCH building is noted on the Sanborn map on the project site. The several small structures adjacent to the project site and the sports field present on the 1908 Sanborn map are still present. One of the small structures adjacent to the eastern portion of the project site is now labeled Gas & Oil, Auto Rep. The adjacent laundry business notes the presence of an underground 10,000-gallon crude oil tank. In addition, a church is noted approximately 200 feet south of the project site.
1952	This Sanborn map appears similar to the 1950 map.
1953	This Sanborn map appears similar to the 1952 map.
1954	This Sanborn map appears similar to the 1953 map.
1955	This Sanborn map appears similar to the 1954 map.
1957	A new structure appears adjacent to the project site, labeled Community Play Ho. The remainder of the project site appears unchanged.
1958	This Sanborn map appears similar to the 1957 map.
1959	The RCH building appears to have been expanded. The remainder of the project site appears similar to the 1958 map. A machine shop is present to the west of the project site. This machine shop is located within the adjacent properties that are part of the RCH Specific Plan Area.
1960	This Sanborn map appears similar to the 1959 map.
1961	This Sanborn map appears similar to the 1960 map.
1962	This Sanborn map appears similar to the 1961 map.

Table 4.6-3
Review of Historical Sanborn Fire Insurance Maps and City Directory Listings

Date	Description
1965	The RCH building appears to have been further extended. The church building adjoining the project site to the south appears to have been extended. The remainder of the project site appears unchanged.
1968	The laundry business that had the 10,000-gallon underground oil tank located adjacent to the project site to the west has been replaced by four office buildings. Additionally, the southwestern portion of the RCH building does not appear on this Sanborn map.
1969	This Sanborn map appears similar to the 1968 map.

Source: Appendix E.

Historical Uses

Based on a city directory review of adjoining properties from 1921 through 2012, uses associated with the project site and surrounding area indicate medical professional use (from 1930 to 2012) and use as a ball park (from 1936 to 1955). More recent listed uses associated with adjoining properties include but are not limited to liquor stores, window tinting and audio businesses, real estate brokers, barber shops, Harley-Davidson motorcycles, a gas station, auto repair, florists, a roofing contractor, a bail bond business, upholstery, a vacuum cleaner service, school facilities, a car wash, pest control, an animal feed store, a bakery, a dry cleaners, and residential use.

Existing Conditions

The project site is currently developed with a hospital campus. The northeastern portion of the project site has been used as a hospital since 1925. The existing hospital campus includes a patient care tower, medical office buildings, an administration building, a health education center, a storage building, a women's services building, a helipad/helistop, parking structures, and surface parking lots. An auto repair shop is located west of the project site.

Chemicals stored on the project site that are related to hospital operations include diesel fuel; the quantity and physical state of hazardous chemicals are listed in Tables 4.6-4 and 4.6-5.

Table 4.6-4
RCH Hazardous Materials Business Emergency Plan Chemical Inventory

Chemical	Largest Container	Physical State	Maximum Daily Amount
Sulfuric acid	55 gal	Liquid	165 gal
Diethylene glycol	20 gal	Liquid	20 gal
Sodium hydroxide	100 oz	Liquid	100 lb
Aminotri	55 gal	Liquid	165 gal
Chlorine granules	100 lb	Solid	100 lb
Sodium hydroxide	15 gal	Liquid	15 gal

Table 4.6-4
RCH Hazardous Materials Business Emergency Plan Chemical Inventory

Chemical	Largest Container	Physical State	Maximum Daily Amount
Diethylaminoethanol	10 gal	Liquid	10 gal
Sodium sulfite	100 lb	Liquid	100 lb
SP buffered 10% formalin	1 gal	Liquid	4 gal
SP buffered 10% formalin	1 gal	Liquid	48 gal
SP buffered 10% formalin	90 oz	Liquid	22,500 oz
SP buffered 10% formalin	30 oz	Liquid	7,500 oz
SP buffered 10% formalin	16 oz	Liquid	112 oz
Hydrogen peroxide	16 oz	Liquid	80 oz
Hydrogen peroxide	16 oz	Liquid	80 oz
Blitz II surgical instrument cleaner and lubricant	10.75 oz	Liquid	21.5 oz
Hydrogen peroxide	16 oz	Liquid	160 oz
SP buffered 10% formalin	0.1 gal	Liquid	1.4 gal
Stainless steel polish	21 oz	Liquid	42 oz
Steris 20 sterile concentrate	1 oz	Liquid	140 oz
Hydrogen peroxide	16 oz	Liquid	112 oz
Sodium nitrite	10 gal	Liquid	10 gal
Hydrochloric acid	150 lb	Liquid	150 lb

Source: Appendix E.
gal = gallon; oz = ounce; lb = pound

Table 4.6-5
2012 RCH Chemical Inventory

Chemical	Quantity	Department	How Stored
Wavicide	4 gal	CDIC ultrasound	Plastic container
T spray	250 ml bottle × 12	CDIC ultrasound	Plastic spray bottle
10% formalin	30 ml containers × 25	Emergency	Specimen containers
Cidex OPA	28 gal (16 in reprocessor)	Endoscopy	Plastic container or in reprocessor
70% isopropyl alcohol	12 gal (1 in reprocessor)	Endoscopy	Plastic container
Formalin	10 boxes/36 count	Endoscopy	4-ounce plastic container
Prolystica enzymatic cleaner 2× concentrate	7 gal; 2 connected to reprocessor	Endoscopy	Plastic container
Formalin 10%	5 gal	Laboratory	Plastic container
Xylene	10 gal	Laboratory	Plastic container
Ammonium hydroxide	500 ml	Laboratory	Glass bottle
HCL	1,000 ml	Laboratory	Glass bottle
Methyl alcohol	6 gal	Laboratory	Glass bottle
Hydrogen peroxide	80 ml	Laboratory	Glass bottle
Clorox bleach (Na hypochlorite)	3 qt × 3	Laboratory	Plastic container
Boric acid	2.5 g × 10	Laboratory	Plastic container
6 N HCL	25 ml × 8	Laboratory	Plastic container

Table 4.6-5
2012 RCH Chemical Inventory

Chemical	Quantity	Department	How Stored
Buff. Wright/Giemsa stain	1,000 ml × 1	Laboratory	Plastic container
Protocol Wright/Gkemsa pak	2,000 ml kits × 16	Laboratory	Plastic container
LH cleaner	80 ml × 1	Laboratory	Plastic container/cube
LH retic pak	2,000 ml × 2	Laboratory	Plastic container
LH reagent kit	2,400 ml ×10	Laboratory	Plastic container
Lyse SIII Diff Rgt	5 L cube × 4	Laboratory	Cube
LH diluent	20 L cube × 29	Laboratory	Cube
Hemosil Cleansing Solution	500 ml × 8	Laboratory	Plastic container
Hemosil Cleaning Agent	80 ml × 6	Laboratory	Plastic container
Hemosil Factor Diluent	100 ml × 28	Laboratory	Plastic container
Hemosil Rinse Solution	2000 ml × 14	Laboratory	Plastic container
Clinitest	100 ml × 7	Laboratory	Glass bottle
Lctotest	100 ml × 5	Laboratory	Glass bottle
Detachol adhesive removal	40 vials	NICU/Peds	Boxed
10% formalin	120 ml–1 gal	NICU/L&D OR	Plastic container
Empower foam	Spray 24 oz	NICU/L&D OR	Plastic container
Peroxide	16 oz	NICU/PP	Plastic container
Betadine	8 oz and swabs	NICU/L&D	Plastic container
70% alcohol	Prep pads	L&D	Boxed
Benzoin	Spray and swabs	L&D	Plastic container
10% formalin	4 gal	OR	Plastic container
S-Klenz	1 gal	OR	Plastic container
Liquid descaler	1 gal	OR	Plastic container
Cidex OPA	1 gal	OR	Plastic container
Formaldehyde	1 gal	OR	Plastic container
70% alcohol	4 pt	OR	Plastic container
AT-TACK	8 oz	OR	Plastic container
95% alcohol	1 oz bottles × 6	OR	Plastic container
Detachol adhesive	40 vials	OR	Plastic container
Fog-proof lens solution	4 oz bottle × 1	OR	Plastic container
Benzoin (tincture)	20 swabs	OR	Boxed
Alum	36 oz	Pharmacy	Plastic container
Na thiosulfate	1 lb	Pharmacy	Glass bottle
Dehydrated alcohol	500 ml	Pharmacy	Glass bottle
Acetone	4 oz	Pharmacy	Glass bottle
Ferric subsalate solution	500 ml	Pharmacy	Glass bottle
BT-408 steam treatment	10 gal	Plant operations	Plastic container
BT-311 boiler treatment	15 gal	Plant operations	Drum w/ 2nd container
CT-502 CW treatment	140 gal	Plant operations	Drum w/ 2nd container
CT-535 CW treatment	120 gal	Plant operations	Plastic container

Table 4.6-5
2012 RCH Chemical Inventory

Chemical	Quantity	Department	How Stored
Chlorine granules	100 lb	Plant operations	Drum w/ 2nd container
BromMax	100 lb	Plant operations	Drum w/ 2nd container
BT-501L boiler treatment	100 lb	Plant operations	Plastic container
CL-120 cleaner	150 lb	Plant operations	Drum w/ 2nd container
Formalin	1 case	Radiology	30 ml containers
Cidex OPA	8 gal	Respiratory	Plastic container
Isopropyl alcohol	4 pt	Respiratory	Plastic container
Formalin	1 oz × 12	Respiratory	Plastic container
Bleach	1 gal	Respiratory	Plastic container
Klenzyme	4 gal	Respiratory	Plastic container
Tergal 800 detergent	4 gal	Respiratory	Plastic container
Cidex OPA	1 gal	Ultrasound	Plastic container

Source: Appendix E.
gal = gallon; CDIC = Computerized Diagnostic Imaging Center; ml = milliliter; qt = quart; g = gram; L = liter; NICU = newborn intensive care unit; Peds = pediatrics; L&D = labor and delivery; OR = operating room; oz = ounce; PP = pregnancy and postpartum

During an interview conducted May 22, 2013, between Susie Smith of Dudek and Jose Torres, facilities manager at RCH, Mr. Torres indicated that at least one underground storage tank (UST) used to store diesel fuel is located on the northeastern portion of the project site, south of 14th Street (see Figure 4.6-1); Mr. Torres indicated that no known environmental conditions have existed on the project site (see Appendix E).

Based on the Phase 1 ESA (Appendix E), 20 wells were mapped within 1 mile of the project site. Well information was provided by the U.S. Geological Survey (USGS) and by state databases. Two wells are located between an eighth and a quarter mile from the site. Depth to groundwater for the well located between an eighth and a quarter mile east-northeast of the site was reported to be between 59.29 and 65.94 feet. Direction of groundwater flow at this well was reported to be to the southwest.

Site Reconnaissance

Dudek staff conducted a site reconnaissance on May 22, 2013, to review the site uses for any indication of subsurface contamination. The site reconnaissance consisted of walking the site, taking notes on observations, and taking photographs. An RCH facilities employee escorted Dudek staff to chemical storage areas at the hospital (see Tables 4.6-4 and 4.6-5), which included Building A, Building N, and the Building I and J parking structures (see Figure 4.6-1).

Building A consists of two floors: a main floor and a basement. The main floor is used as a tissue laboratory and medical offices (see Appendix E, Photographs 20 and 21). The basement is used to store medical records and other miscellaneous items (see Appendix E, Photographs 22 and 23). The elevator room is located in the basement and contains the hydraulic reservoir (see Appendix E, Photograph 24). A transformer is located in the basement adjacent to the medical records room (see Appendix E, Photograph 25).

Building N is a medical office building that is connected to Building C by a pedestrian bridge. Transformers were observed in the electrical control rooms on the first and second floors; additional transformers were observed in the MRI Computer Room (see Appendix E, Photographs 27 and 28). A mechanical elevator room was observed on the rooftop level of the building (see Appendix E, Photograph 29). Boilers and air handlers are also located on the rooftop level of the building (see Appendix E, Photographs 30 and 31). Minor stained asphalt was observed in the parking lot located to the west of Building N (see Appendix E, Photograph 32).The Building I parking structure contains a fenced waste storage area on the southern side of the parking structure (see Appendix E, Photograph 34). Two unlabeled 55-gallon drums were observed within the fenced waste storage area along with red bags and bins labeled “biohazard” (see Appendix E, Photograph 35). An equipment storage area was observed in the northeast corner of the Building I parking structure; the equipment stored included hospital beds and other miscellaneous hospital equipment (see Appendix E, Photograph 36). Two hydraulic elevators, only one of which is operational, service the Building I and Building J parking structures (see Appendix E, Photograph 37). According to the facilities employee escorting Dudek staff during the time of the site reconnaissance, the northernmost Building I/Building J parking structure elevator became inoperable several years ago due to a subsurface leak in the hydraulic cylinder. Minor staining was observed in both of the parking structure elevator rooms (see Appendix E, Photograph 37). Minor stained parking surfaces were observed in the Building I and Building J parking structures (see Appendix E, Photograph 38).

DUDEK

7824

SOURCE: Kimley-Horn and Associates 5/20/2013, Perkins+Will 5/20/2013, BING 2013

FIGURE 4.6-1

On-Site Hazards

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Related Regulations

Federal

Several federal agencies regulate hazardous materials. These include the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration, and the U.S. Department of Transportation. Applicable federal regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). In particular, Title 49 of the CFR governs the manufacture of packaging and transport containers, packing and repacking, and labeling, as well as marking hazardous material transport. Some of the major federal laws and issue areas include the following statutes:

- Resource Conservation and Recovery Act (RCRA) – hazardous waste management
- Hazardous and Solid Waste Amendments Act – hazardous waste management
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – cleanup of contamination
- Superfund Amendments and Reauthorization Act (SARA) – cleanup of contamination
- Emergency Planning and Community Right-to-Know (SARA Title III) – business inventories and emergency response planning
- Hazardous Substances Act (15 U.S.C. 1261−1278) – requirements that certain hazardous household products (hazardous substances) bear cautionary labeling to alert consumers to the potential hazards that those products present and to inform them of the measures they need to protect themselves from those hazards.

The EPA is the primary federal agency responsible for the implementation and enforcement of hazardous materials regulations. In most cases, enforcement of environmental laws and regulations established at the federal level is delegated to state and local environmental regulatory agencies.

State

Primary state agencies with jurisdiction over hazardous chemical materials management are the Department of Toxic Substances Control (DTSC) and the local Santa Ana Regional Water Quality Control Board (RWQCB). Other state agencies involved in hazardous materials management are the Department of Industrial Relations (State Occupational Safety and Health Administration implementation), Office of Emergency Services (California Accidental Release Prevention implementation), California Department of Fish and Wildlife, California Air Resources Board, California Department of Transportation (Caltrans), State Office of Environmental Health Hazard Assessment (Proposition 65 implementation), and the California Integrated Waste Management Board (CIWMB).

The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol and Caltrans. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations. South Coast Air Quality Management District Rules and Regulations pertain to asbestos abatement (including Rule 1403) and Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the California Code of Regulations (CCR). Hazardous chemical and biohazardous materials management laws in California include the following statutes:

- Hazardous Materials Management Act – This act requires that businesses handling or storing certain amounts of hazardous materials prepare a hazardous materials business emergency plan (HMBEP) that includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program.
- Hazardous Waste Control Act – Codified at California Health and Safety Code, Division 20, Chapter 6.5, Article 2, Section 25100 et seq., this act authorizes the DTSC and local Certified Unified Program Agencies (CUPAs) to regulate facilities that generate or treat hazardous waste.
- Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) – This act requires the governor to publish and update, at least annually, a list of chemicals known to the state to cause cancer, birth defects, or other reproductive harm, and to inform citizens about exposures to such chemicals.
- Hazardous Waste Management Planning and Facility Siting – Also known as the Tanner Act, Assembly Bill (AB) 2948 (1986) requires counties to prepare hazardous waste management plans for DTSC approval, and prescribes specific public participation activities that must be carried out during the local land use permit process for siting new or expanding off-site commercial treatment, storage, and disposal facilities.
- Hazardous Materials Storage and Emergency Response Plans – AB 2185, which regulates hazardous materials storage and emergency response plans, requires immediately reporting to local fire departments and the Office of Emergency Services any release or threatened release of a hazardous material, regardless of the amount handled by the business.
- California Medical Waste Management Act – As codified in the California Health and Safety Code, Sections 117600–118360, the act establishes procedures for the proper handling, storage, treatment, and transportation of medical waste.
- Land Disposal Restrictions – Restrictions codified in 22 CCR 18 were set up by Congress in 1984 for the EPA. These restrictions ensure that toxic constituents present in hazardous waste are properly treated before hazardous waste is land disposed.

State regulations and agencies pertaining to hazardous materials management and worker safety are described in the following subsections.

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) has broad jurisdiction over hazardous materials management in the state. Within CalEPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with the DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. RWQCB regulations are contained in Title 27 of the CCR. Additional state regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

Investigation and Cleanup of Contaminated Sites

The oversight of hazardous materials release sites often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC and RWQCB are the two primary state agencies responsible for issues pertaining to hazardous materials release sites. Air quality issues related to remediation and construction at contaminated sites are also subject to federal and state laws and regulations that are administered at the local level.

Investigation and remediation activities that would involve potential disturbance or release of hazardous materials must comply with applicable federal, state, and local hazardous materials laws and regulations. The DTSC has developed standards for the investigation of sites where hazardous materials contamination has been identified or could exist based on current or past uses. The standards identify approaches to determine whether a release of hazardous wastes/substances exists at a site and delineates the general extent of contamination; estimates the potential threat to public health and/or the environment from the release and provides an indicator of relative risk; determines whether an expedited response action is required to reduce an existing or potential threat; completes preliminary project scoping activities to determine data gaps; and identifies possible remedial action strategies to form the basis for development of a site strategy.

Government Code Section 65962.5

Pursuant to Government Code 65962.5, environmental regulatory database lists were reviewed to identify and locate properties with known hazardous substance contamination

within the project area (California Government Code, Section 65960 et seq.). Four state agencies are required to provide lists of facilities that have contributed, harbor, or are responsible for environmental contamination within their jurisdiction. The four state agencies that are required to provide these lists to the Secretary for Environmental Protection include the DTSC, the State Department for Health Services, the State Water Resources Control Board (SWRCB), and the CIWMB. The Secretary for Environmental Protection then takes each of the four respective agency lists and forms one list, referred to as the Hazardous Waste and Substances Site List – Site Cleanup and also known as the Cortese List, which is made available to every city and/or county in California (DTSC 2007).

The DTSC maintains lists of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code; land designated as hazardous waste property or border zone property pursuant to Article 11, Chapter 6.5, Division 20 of the Health and Safety Code; information received by the DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposal on public land; sites listed pursuant to Section 25356 of the Health and Safety Code; and sites on the Abandoned Site Assessment Program.

The Department for Health Services maintains lists of all public drinking water wells that contain detectable levels of organic contaminants and wells that are subject to special water analysis. The SWRCB maintains lists of unauthorized release reports for USTs pursuant to Section 25295 of the Health and Safety Code; solid waste disposal facilities from which there has been a migration of hazardous waste; and all cease-and-desist orders issued after January 1, 1986, concerning hazardous waste discharges. The CIWMB maintains lists of solid waste disposal facilities from which there is a known migration of hazardous waste. The Hazardous Waste and Substances List has been reviewed to identify hazardous sites that may affect the project. A search of available environmental records was conducted by Dudek for documented hazardous material sites, in accordance with American Society for Testing and Materials (ASTM) Standard of Practice E 1527-05, "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process" (Appendix E). The records search was conducted for the project area, and within 1 mile of the project site. The EPA federal sources databases that were searched by Dudek are included, with descriptions, in Table 4.6-6.

Table 4.6-6
EPA Federal Sources Databases Searched

Acronym	Database	Search Distance
NPL	National Priorities List (Including Proposed NPL Sites)	1 mile
Proposed NPL	Proposed National Priority List Sites	1 mile
Delisted NPL	National Priority List Deletions	1 mile
NPL LIENS	Federal Superfund Liens	Target property

Table 4.6-6
EPA Federal Sources Databases Searched

Acronym	Database	Search Distance
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)	0.5 mile
CERC-NFRAP	CERCLIS No Further Remedial Action Planned	0.5 mile
ENF	Enforcement Action Listing	Target property
CORRACTS	Resource Conservation and Recovery Act (RCRA) Corrective Action	1 mile
RCRA TSDF	RCRA Transportation, Storage, and Disposal	0.5 mile
RCRA-SQG	RCRA Small Quantity Generators	0.25 mile
RCRA-LQG	RCRA Large Quantity Generators	0.25 mile
RCRA-NonGen	RCRA Nongenerators	0.25 mile
ERNS	Emergency Response Notification System of Spills	Target property
HMIRS	Hazardous Materials Information Reporting System	Target property
US ENG CONTROLS	Sites with Engineering Controls	0.5 mile
US INST CONTROLS	Sites with Institutional Controls	0.5 mile
DOD	Department of Defense Sites	1 mile
FUDS	Formerly Used Defense Sites	1 mile
US BROWNFIELDS	A Listing of Brownfields Sites	0.5 mile
CONSENT	Superfund (CERCLA) Consent Decrees	1 mile
ROD	Record of Decision	1 mile
UMTRA	Uranium Mill Tailings Sites	0.5 mile
ODI	Open Dump Inventory	0.5 mile
TRIS	Toxic Release Inventory Database	Target property
TSCA	Toxic Substance Control Act	Target property
FTTS	Federal Insecticide, Fungicide, and Rodenticide Act/TSCA Tracking System	Target property
SSTS	Section 7 Tracking Systems	Target property
ICIS	Integrated Compliance Information System	Target property
US CDL	Clandestine Drug Lab Locations	Target property
LUCIS	Land Use Control Information System for Former Navy Base Realignment and Closure Properties	0.5 mile
RADINFO	Radiation Information Database	Target property
PADS	PCB Activity Database System	Target property
MLTS	Material Licensing Tracking System	Target property
RMP	Risk Management Plan	Target property
US MINES	Mines Master Index File	0.25 mile
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report	Target property
RAATS	RCRA Administrative Action Tracking System	Target property
LIENS2	CERCLA Lien Information	Target property
DOT OPS	Department of Transportation, Office of Pipeline Safety Incident and Accident Database	Target property
US HIST CDL	National Clandestine Laboratory Register	Target property
RCRA-CESQG	RCRA Conditionally Exempt Small Quantity Generators	0.25 mile

Table 4.6-6
EPA Federal Sources Databases Searched

Acronym	Database	Search Distance
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Target property
US AIRS	Aerometric Information Retrieval System Facility Subsystem	Target property
PRP	Potentially Responsible Parties	Target property
2020 COR ACTION	2020 Corrective Action Program List	0.25 mile
LEAD SMELTERS	Lead Smelter Sites	Target property
EPA WATCH LIST	EPA Watch List	Target property
FEDERAL FACILITY	Federal Facility Site Information Listing	1 mile
COAL ASH DOE	Steam-Electric Plan Operation Data	Target property
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	0.5 mile
PCB TRANSFORMER	PBC Transformer Registration Database	Target property
SPILLS 90	SPILLS 90 Data from FirstSearch	Target property
US FIN ASSUR	Financial Assurance Information	Target property

Source: Appendix E.

The project site was listed in two of the federal database records searched by EDR: FINDS and RCRA-SQG. Additionally, 69 sites were identified in federal databases within 1 mile of the project site, and 12 of these 69 sites were also identified in the state databases. No releases have been identified on these sites.

State sources databases that were searched by Dudek are included, with descriptions, in Table 4.6-7.

Table 4.6-7
State Sources Databases Searched

Acronym	Database	Search Distance
Hist CalSites	CalSites Database	1.0 mile
CA Bond Exp. Plan	Bond Expenditure Plan	1.0 mile
SCH	Proposed and Existing School Sites Being Evaluated by DTSC	0.25 mile
Toxic Pits	Toxic Pits Cleanup Facilities	1.0 mile
UIC	Underground Injection Control Listing	Target property
WMUDS/SWAT	Waste Management Unit Database System/Solid Waste Assessment Test	0.5 mile
CORTESE	State Index of Properties with Hazardous Waste	0.5 mile
SWRCY	Recycling Facilities in California	0.5 mile
LUST	Leaking Underground Storage Tank	0.5 mile
CA FID UST	Facility Inventory Database	0.25 mile
SLIC	Statewide Spills, Leaks, Investigations, and Cleanups Program Cases	0.5 mile
UST	Registered Underground Storage Tanks, Including Tanks on Indian Land and Historic USTs	0.25 mile

Table 4.6-7
State Sources Databases Searched

Acronym	Database	Search Distance
HIST UST	Historic Underground Storage Tank	0.25 mile
AST	Registered Aboveground Storage Tanks	0.25 mile
SWEEPS UST	UST listing maintained by RWQCB in the 1980s	0.25 mile
CHMIRS	California Hazardous Material Incident Report System	Target property
Notify 65	Proposition 65	1.0 mile
DEED	Department of Health Services – Land Use and Air Assessment	0.5 mile
VCP	Voluntary Cleanup Program Properties	0.5 mile
DRY CLEANERS	Dry-Cleaning Facilities	0.25 mile
WIP	Well Investigation Program Case List	0.25 mile
CDL	Clandestine Drug Labs	Target property
LIENS	Environmental Liens in California Where DTSC Is the Lien Holder	Target property
RESPONSE	State Response Sites	1.0 mile
HAZNET	Hazardous Waste Information System	Target property
EMI	Emissions Inventory Data	Target property
ENVIROSTOR	EnviroStor Database	1.0 mile
INDIAN RESERV	Indian Reservations	1.0 mile
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land	0.5 mile
INDIAN UST	Underground Storage Tanks on Indian Land	0.25 mile
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	0.5 mile
INDIAN VCP	Voluntary Cleanup Priority Listing	0.5 mile
SWF/LF	Solid Waste Information System	0.5 mile
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	0.5 mile
HIST CORTESE	Hazardous Waste & Substances Site List	0.5 mile
SCRD DRYCLEANERS	State Coalition for Remediation of Dry Cleaners Listing	0.5 mile
FEMA UST	Underground Storage Tank Listing	0.25 mile
HAULERS	Registered Waste Tire Haulers Listing	Target property
NPDES	National Pollutant Discharge Elimination System Permit Listing	Target property
WDS	Waste Discharge System	Target property
PROC	Certified Processors Database	0.5 mile
MWMP	Medical Waste Management Program Listing	0.25 mile
HWT	Registered Hazardous Waste Transporters Database	0.25 mile
FINANCIAL ASSURANCE	Financial Assurance Information Listing	Target property
HWP	EnviroStor Permitted Facilities Listing	1.0 mile
LDS	Land Disposal Sites Listing	Target property
MCS	Military Cleanup Sites Listing	Target property
CUPA Listings	Certified Unified Program Agency Resources List	0.25 mile

The project site was listed in seven of the state/local databases searched by EDR: LUST, HAZNET, UST, HIST CORTESE, SWEEPS UST, CA FID UST, and EMI. Additionally, 30 facilities within the specific search distances were also identified in the state and local sources databases. Of the 30 sites, 4 reported a release to soil and/or groundwater for which those sites are still under investigation. After review of documents available on the SWRCB GeoTracker database, Dudek determined that the Thrifty Oil No. 343/ARCO No. 9713 site located on 4395 Market Street (approximately one-eighth mile east of the project site) has impacted the environmental conditions on the project site and it is also possible that groundwater contamination from the Campbell Oil Company site located at 4491 Brockton Avenue (approximately one-eighth mile northwest of the project site) has impacted the environmental conditions of the project site. Dudek concluded that the other two sites with open release cases have not impacted the environmental conditions of the project site.

Local

City of Riverside General Plan 2025

The Public Safety Element of the City GP 2025 (City of Riverside 2007b) includes the following selected objective and policies that will be applied to the project related to hazards and hazardous materials:

- **Objective PS-3:** Minimize risks associated with the storage, transport, and disposal of hazardous materials.
- **Policy PS-3.1:** Ensure that hazardous materials used in business and industry are handled properly.
- **Policy PS-3.2:** Provide the Fire Department with resources to ensure that hazardous materials used and generated by businesses are handled properly.
- **Policy PS-3.4:** Reduce the risks associated with ground transportation hazards, where feasible.
- **Policy PS-3.5:** Encourage sewer service to minimize groundwater contamination.

The City's Final GP 2025 PEIR identifies hazardous waste sites as shown on Figure 5.7-1 of the Final GP 2025 PEIR (City of Riverside 2007a). There are seven CERCLIS sites in the City; of these seven, one is on the National Priority List. The project site is not identified as a hazardous waste site in the City's GP 2025.

4.6.2 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS and Appendix G of the CEQA Guidelines, the project could have a significant impact on hazards and hazardous materials if the project would:

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- 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 for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

4.6.3 Project Elements That Can Reduce Impacts

Prior to construction, RCH will prepare a hazardous substance management, handling, storage, disposal, and emergency response plan to be followed during construction that will ensure adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, and will ensure that construction of the project will not create a significant hazard to the public or the environment.

As part of the project (see Table 2.0-5 in Chapter 2.0, Project Description) and as required by state hospital licensing requirements, for Phases I, IIa, IIb, and IIc, RCH will continue to update its internal Hazardous Materials and Waste Management Plan and HMBEP (in accordance with California Health and Safety Code, Chapter 6.95, Sections 25500–25532) to reflect transport, storage, use, and disposal of hazardous materials. These updates would include the use of additional chemicals currently used at the hospital as well as any new chemicals required to operate the project's components. The updated documents will be submitted to County of Riverside Department of Environmental Health (DEH). All chemicals shall be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR 4.5).

Additionally, in accordance with the Code of Federal Regulations, Title 40, Part 112, prior to certificate of occupancy issuance for Phases I, IIa, IIb, and IIc, RCH will update its Spill Prevention, Control, and Countermeasures (SPCC) Plan, which will be included as a condition of approval to the project.

4.6.4 Environmental Impacts Before Mitigation

Findings from the Phase 1 ESA were based on a review of historical source information; a radius search performed by EDR; an interview questionnaire on May 22, 2013, summarizing a meeting between Susie Smith of Dudek and Jose Torres, Facilities Manager at RCH; and a site reconnaissance dated May 22, 2013. The site reconnaissance consisted of walking the site, taking notes on observations, and taking photographs. An RCH facilities employee escorted Ms. Smith to chemical storage areas at the hospital campus.

Dudek contacted the County of Riverside DEH requesting information on the project site and reviewed the DEH records on May 29, 2013.

Threshold: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Project- and Program-Level Elements

There are four schools within one-quarter mile of the project site. Grant Elementary School is located approximately 0.02 mile north of the site; the Riverside City College daycare facility is located 0.06 mile east of the project site; a private elementary school and daycare facility at All Saint's Episcopal Church is located at the corner of Terracina Drive and Magnolia Avenue, approximately 0.13 mile south of the project site; Central Middle School is located 0.20 mile southeast from the closest boundary of the project site, along Magnolia Avenue and Terracina Drive; and the Riverside City College campus core is located approximately 0.20 mile southeast of the project site. The Riverside City College baseball fields are located 0.09 mile southeast of the project site.

The current use on the project site is an existing hospital campus that handles acutely hazardous medical materials. RCH currently has an HMBEP that reports the following activities conducted at the project site: handling hazardous materials, owning and operating a UST, generating hazardous waste, and recycling more than 100 kilograms per month of excluded or exempted recyclable materials. The chemicals currently used on the RCH hospital campus, according to the HMBEP, are listed in Table 4.6-4.

During the site reconnaissance in May 2013, Dudek staff observed chemical storage areas of the hospital operations (chemical storage areas from Buildings A and N; Building I and Building J parking structures). Table 4.6-5 lists RCH's chemical inventory in 2012 as provided by Shail Singh of HCA Healthcare, representative for RCH.

Implementation of the phases outlined in the Specific Plan could increase the amount of acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. As stated above, as part of the project, prior to construction of Phases I, IIa, IIb, and IIc, RCH will prepare/update a hazardous substance management, handling, storage, disposal, and emergency response plan to be followed during construction that will ensure adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, and will ensure that construction of the project will not create a significant hazard to the public or the environment, including nearby schools.

As part of the project (see Table 2.0-5 in Chapter 2.0, Project Description) and as required by state hospital licensing requirements, for Phases I, IIa, IIb, and IIc, RCH will continue to update its HMBEP (in accordance with California Health and Safety Code, Chapter 6.95, Sections 25500–25532) to reflect transport, storage, use, and disposal of hazardous materials following construction of each phase of the project. These updates would include the use of additional chemicals currently used at the hospital as well as any new chemicals required to operate the project's components. The updated documents will be submitted to County of Riverside DEH and/or the City of Riverside Fire Department as required by California Health and Safety Code, Chapter 6.95, Sections 25500–25532. RCH is required to manage all chemicals on site in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR 4.5). Additionally, in accordance with the Code of Federal Regulations, Title 40, Part 112, prior to certificate of occupancy issuance for Phases I, IIa, IIb, and IIc, RCH will update its SPCC Plan, which identifies the measures RCH will take to control and contain any spills on site and prevent them from leaving the site. Compliance with RCH's internal Hazardous Materials and Waste Management Plan, which is required to be updated as part of state hospital licensing requirements, as well as the HMBEP (in accordance to California Health and Safety Code, Chapter 6.95, Section 25500–25532), and SPCC Plan (in accordance with the Code of Federal Regulations, Title 40, Part 112) would ensure that the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of a school.

Additionally, Phase I of the project includes demolition of Building N, Phase IIa of the project includes demolition of Building A, and Phase IIb of the project includes demolition of parking structure Buildings I and J. Based on the age of the buildings, it is possible that asbestos-containing materials and lead-based paint are present. Asbestos and lead-based paint were very common in building materials during the time these structures were constructed. If not properly handled and removed, asbestos can become airborne during demolition activities and pose a health hazard. Additionally, lead-based paint can pose an ingestion hazard if it becomes entrained into the air or water during demolition activities. Therefore, since it is unknown

whether there is asbestos or lead-based paint in Buildings N, A, I, or J, implementation of Mitigation Measure **MM HAZ-1** shall be incorporated, which will ensure that all asbestos and lead-based paint materials are identified and remediated per the requirements identified by the County of Riverside DEH.

Based on the review of the regulatory database search, it is likely that other properties have impacted the environmental conditions at or near the project site—specifically, the surrounding properties located at 4395 Market Street and 4491 Brockton Avenue. An unauthorized release of gasoline was discovered at 4395 Market Street (a gas station) in 1997. The direction of groundwater flow is to the southwest, toward RCH. Based on review of the 2012 third quarter groundwater monitoring report, the total petroleum hydrocarbons as gasoline (TPHg)-impacted groundwater plume extends onto the northeastern portion of the RCH site. An unauthorized release of gasoline was also discovered at 4491 Brockton Avenue in 1986. The extent of contamination at the 4491 Brockton Avenue site has not been fully characterized. Based on the proximity of the 4491 Brockton Avenue site, this site may have impacted environmental conditions at the western portion of the site. Further, since there were previous releases associated with USTs on the hospital campus and other investigations have identified surrounding land uses that have impacted groundwater and soil on the project site, **MM HAZ-2** will be incorporated, requiring that testing of soils for volatile organic compounds (VOCs) be conducted prior to ground disturbance for all phases of the project. Additionally, since RCH will prepare a hazardous substance management, handling, storage, disposal, and emergency response plan during construction activities, update its HMBEP for operations, and update its SPCC plan, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a school. Impacts would be considered **less than significant with mitigation incorporated.**

Threshold: Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Project- and Program-Level Elements

Government Code, Section 65962.5, combines several regulatory lists of sites that may pose a hazard related to hazardous materials or substances. According to Government Code, Section 65962.5(a), there are no hazardous materials or waste sites located on the project site. Additionally, according to Figure 5.7-1 of the Final GP 2025 PEIR, there are no known hazardous waste sites within the project site (City of Riverside 2007a).

However, based on the Phase 1 ESA (Appendix E), five USTs were previously located at the project site (one 120-gallon leaded gasoline, one 280-gallon leaded gasoline, one 1,000-gallon

diesel, one 3,000-gallon diesel, and one 6,000-gallon diesel). Figure 4.6-1 depicts the locations of the former USTs. Residual contamination remains in the area of the former USTs under the main hospital building. Four of the five USTs were removed and one was closed in place. The two leaded gasoline and 1,000-gallon diesel tanks were removed from the site in 1988. Soil beneath the 120-gallon leaded gasoline tank was impacted, and consequently 15 cubic yards of soil was excavated and disposed of. The 3,000-gallon diesel UST was removed from the site in June 1989. Impacted soil was discovered and 300 cubic yards of soil were excavated and disposed of. Additional petroleum hydrocarbon-impacted soil was reportedly left in place due to the threat of undermining the structural integrity of the adjacent hospital buildings. A release was observed in the vicinity of the 6,000-gallon diesel tank in 1987. This tank is located beneath the hospital loading dock and was abandoned in place in June 1989 due to the proximity of hospital structures. Soil samples collected in May 1989 from angle borings beneath the 6,000-gallon tank did not contain detectable concentrations of petroleum hydrocarbons. The County of Riverside DEH issued a No Further Action letter for the five USTs in September 1989 (Appendix E). However, residual contamination remains in the subsurface due to the former LUSTs on the project site. **MM HAZ-3** shall be implemented to remediate any residual contamination that remains from the former LUSTs. An existing 10,000-gallon diesel UST associated with the backup generators, located in the northwestern portion of the project site, is currently operational (see Figure 4.6-1).

During the site reconnaissance, Dudek staff was also informed about a release of hydraulic oil to the subsurface soils due to a leaking cylinder associated with the northernmost parking structure elevator in Building I/Building J. This structure is proposed to be demolished as part of Phase IIc; therefore, prior to demolition, **MM HAZ-4** shall be implemented to remediate any soil contamination from the Building I/Building J parking structure elevator.

Based on the review of the regulatory database search, it is likely that other properties have impacted the environmental conditions at or near the project site—specifically, the surrounding properties located at 4395 Market Street and 4491 Brockton Avenue. An unauthorized release of gasoline was discovered at 4395 Market Street (a gas station) in 1997. The direction of groundwater flow is to the southwest, toward RCH. Based on review of the 2012 third quarter groundwater monitoring report, the total petroleum hydrocarbons as gasoline (TPHg)-impacted groundwater plume extends onto the northeastern portion of the RCH site. An unauthorized release of gasoline was also discovered at 4491 Brockton Avenue in 1986. The extent of contamination at the 4491 Brockton Avenue site has not been fully characterized. Based on the proximity of the 4491 Brockton Avenue site, this site may have impacted environmental conditions at the western portion of the site.

Additionally, a machine shop (4468 Brockton Avenue) and former dry-cleaning operations (4407, 4435, 4440, 4444, and 4459 Brockton Avenue) are/were located immediately west of

the project site. It is possible that these former sites have impacted the environmental conditions at the site. Therefore, in order to protect construction workers, RCH employees, and RCH customers from any potential contamination on site that may have come from surrounding properties, **MM HAZ-2** shall be implemented to remediate any residual contamination from the nearby off-site properties.

With incorporation of **MM HAZ-2**, **MM HAZ-3**, and **MM HAZ-4**, the project would not create a significant hazard to the public or the environment and impacts would be considered **less than significant with mitigation incorporated.**

Threshold: 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 for people residing or working in the project area?

Project- and Program-Level Elements

The project site is not located within an airport influence area. However, the project site is located approximately 1.43 miles from Flabob Airport. According to Figure 5.7-2, Airport Safety and Compatibility Zones, in the Final GP 2025 PEIR, the project site is not located within Flabob Airport safety zones or other airport environs (City of Riverside 2007a). As such, development as proposed would not result in a safety hazard for patients, visitors, physicians, or staff at the hospital.

Although not considered a public or private airport, there is an existing helistop/helipad located approximately 13.5 feet above the top level of the parking structure along 14th Street. The existing helipad consists of an approximately 54-foot-square touchdown and liftoff area on an elevated metal landing pad with associated gurney ramp, safety net, wind cone, lighting, and painted markings. Primary arrival/departure approaches are east and west of the helipad. The helipad is used to accommodate public service helicopters (as large as the Sikorsky Blackhawk, 64.8 feet in length) for community disaster preparedness, and to accommodate Emergency Medical Service helicopters. As stated in the City's Conditional Use Permit Case P09-0693 and Design Review Case P09-0694 for the helipad, approximately 12 landings per month will occur, and the heaviest use is typically during non-school hours, such as late evenings and weekends (City of Riverside 2010). No change in helicopter/helipad operations is anticipated as part of this project. The existing helipad would not change locations, and no increase in helicopter operations is proposed as part of this project. As such, development as proposed would not result in a safety hazard for patients, visitors, physicians, or staff at the hospital from helicopter operations. Impacts would be considered **less than significant** and no mitigation is required.

Threshold: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Project- and Program-Level Elements

The project shall comply with the City's Emergency Operations Plan (EOP) for both construction and operations of all phases. Construction activities during Phases I, IIa, IIb, and IIc that may temporarily restrict vehicular traffic would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures in accordance with the City's EOP. Operation of the project would not interfere with the City's EOP as all existing access driveways off Magnolia Avenue, 14th Street, and Brockton Avenue would remain in operation throughout project buildout. The project proponent would be required to design, construct, and maintain structures, roadways, and facilities to comply with applicable local, regional, state, and/or federal requirements related to emergency access and evacuation plans. The proposed site plan, including the access driveways, will be reviewed and approved by the fire department during plan check review. Adherence to these requirements would reduce potential impacts related to this issue to a **less than significant** level. No mitigation is required.

4.6.5 Mitigation Measures

Section 15126.4 of the CEQA Guidelines requires EIRs to describe feasible measures that will reduce significant adverse impacts. The following mitigation measures have been evaluated for feasibility and are incorporated to reduce potentially significant impacts related to the site being located on a list of hazardous materials site pursuant to Government Code Section 65962.5 that could create a significant hazard to the public or the environment.

MM HAZ-1 Prior to demolition activities in Phase I, Phase IIa, and Phase IIb of the project, a lead-based paint and asbestos survey shall be conducted. Should lead-based paint or asbestos-containing materials be identified during survey, abatement of the same will be accomplished in accordance with local, state, and federal guidelines.

MM HAZ-2 Prior to grading and/or subsurface work for Phase I, Phase IIa, Phase IIb, and Phase IIc of the project, air monitoring for volatile organic compounds (VOCs) shall be conducted to determine whether subsurface contamination will affect construction activities. If VOC levels are above those allowed for worker safety and environmental compliance, Riverside Community Hospital (RCH) shall retain qualified personnel to train RCH employees and/or contractors, remediate existing VOC levels, and prevent exposure to RCH customers and employees/contractors through monitoring and remediating impacted materials, proper use of personal protective equipment, and utilizing best management procedures.

MM HAZ-3 Prior to construction activities in the area of the former underground storage tanks (see Figure 4.6-1), a subsurface soil and soil vapor investigation shall be conducted in the north, northeast, and western portions of the project site. If contamination is detected during the subsurface investigations and the concentrations exceed worker safety thresholds, a soil management plan shall be prepared to protect worker health and safety during construction. If established regulatory agency contamination thresholds are exceeded, the regulatory agencies (e.g., the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB)) shall be notified and remediation may be necessary.

MM HAZ-4 Prior to the demolition of the parking structure during Phase IIb of the project, an investigation of the soil in the area of the hydraulic oil release by the parking structure elevator shall be conducted. If contamination is detected during the subsurface investigations and the concentrations exceed worker safety thresholds, a soil management plan shall be prepared to protect worker health and safety during construction. If established regulatory agency contamination thresholds are exceeded, the regulatory agencies (e.g., the DTSC and the RWQCB) shall be notified and remediation may be necessary.

4.6.6 Environmental Impacts After Mitigation Is Incorporated

Impacts to hazards and hazardous materials can be mitigated to less than significant levels by incorporating mitigation measures as described in Section 4.6.5. Some of the mitigation measures may require further study or testing as described, however, the intent of these mitigation measures is to remediate or treat any residual or found contamination, if any are found, to levels that satisfy regulatory agency requirements. Therefore, because regulatory thresholds will have to be met, per state and local regulations as described above if any residual contamination is found by complying with the mitigation measures, no significant adverse impacts would remain after mitigation.

4.6.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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4.7 HYDROLOGY/WATER QUALITY

The focus of the following discussion and analysis, based on the Initial Study (IS) (Appendix A) and comments received during the Notice of Preparation (NOP) public comment period, concerns potentially adverse impacts to water quality, ground water supplies, drainage patterns, runoff, and stormwater drainage systems resulting from implementation of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project). Thresholds, including the project placing housing within a 100-year flood hazard area, placing structures within a 100-year flood hazard which would impede or redirect flows, exposing people or structures to a significant risk of loss, injury, or death involving flooding, and causing inundation by seiche, tsunami, or mudflow were found to be less than significant or had no impacts as identified in the IS/NOP for the project (Appendix A) and will not be addressed further in this Draft Environmental Impact Report (EIR). In addition to other documents, the following sources were used in the preparation of this section of the EIR:

- Kimley-Horn and Associates Inc., 2013a, *Hydrology and Hydraulics Study for Riverside Community Hospital: Riverside, California* (herein referred to as the Hydrology and Hydraulics Study) (Appendix L).
- Kimley-Horn and Associates Inc., 2013b, *Preliminary Project Specific Water Quality Management Plan: A Template for Projects located within the Santa Ana Watershed Region of Riverside County* (herein referred to as the project-specific WQMP) (Appendix J).

4.7.1 Setting

Existing Conditions

The approximately 22.5-acre project site is highly developed and consists of mostly impervious surfaces such as roofs, pavement, and sidewalks with only limited amounts of pervious landscaped areas within planting beds or along the site perimeter. Generally, the site has relatively mild to moderate slopes of less than 5% with the exception of a roughly 30-foot grade difference near the center of the site. Stormwater runoff generated from the site utilizes one of five outfall locations, as identified and labeled in Figure 4.7-1, On-Site and Municipal Drainage System.

Surface Hydrology

The site is located within the Santa Ana Region (Region 8) of the California Regional Water Quality Control Board (RWQCB), located within the RWQCB Middle Santa Ana River Watershed Management Area and in the Santa Ana Hydrologic Unit (RWQCB 2011). The

Santa Ana River is located approximately 1 mile to the northwest of the project site. Surface flows from the project site are collected by the municipal stormwater system and ultimately flow into Reach 3 of the Santa Ana River. The Santa Ana River is the receiving water for over 2,700 square miles that include portions of San Bernardino, Riverside, and Orange Counties. The Santa Ana River flows for over 100 miles from the San Bernardino Mountains to the Pacific Ocean.

Groundwater Resources

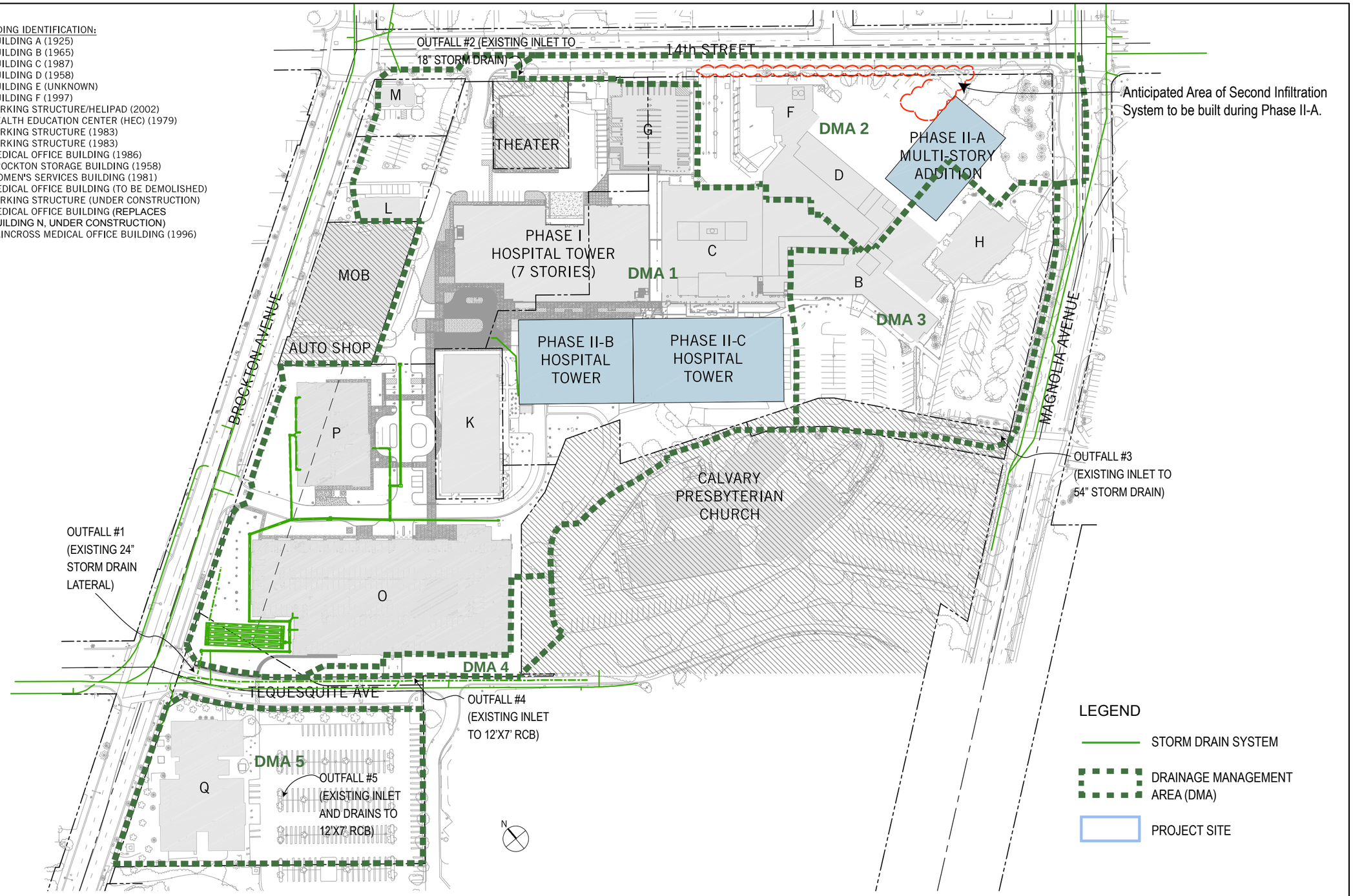
Water resources throughout Riverside County are sustained by significant groundwater basins, which are used as reservoirs to store water during wet years and to supply stored water in dry years. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation of precipitation, groundwater seepage and ephemeral stream flow from the six arroyos that traverse the City of Riverside (City). Local groundwater basins are recharged from natural runoff, treated wastewater, and imported water.

The project site is located in the Riverside South groundwater basin area (RPU 2012). In 2010 Riverside Public Utilities (RPU) supplied approximately 83,257 acre-feet of water to its customers. Approximately 74% of RPU's water supply consists of groundwater from the Bunker Hill Basin, Riverside North Basin, and the Riverside South Basin. Additional sources of water include the Rialto-Colton Basin, recycled water from the City's Regional Water Quality Control Plant, and imported water from the Western Municipal Water District (City of Riverside 2011).

Stormwater System

The storm drain system within the City of Riverside is managed and maintained by both the City and the County. Smaller drainage facilities, consisting mostly of underground closed pipelines and storm drains located in developed areas, are typically maintained by the City. Maintenance of larger drainage facilities and the management of the overall drainage plans in the area are the responsibility of the Riverside County Flood Control and Water Conservation District (City of Riverside 2007b). The majority of stormwater flows collected within the City discharge to the Santa Ana River, which ultimately drains into the Pacific Ocean near Newport Beach.

BUILDING IDENTIFICATION:
A. BUILDING A (1925)
B. BUILDING B (1965)
C. BUILDING C (1987)
D. BUILDING D (1958)
E. BUILDING E (UNKNOWN)
F. BUILDING F (1997)
G. PARKING STRUCTURE/HELIPAD (2002)
H. HEALTH EDUCATION CENTER (HEC) (1979)
I. PARKING STRUCTURE (1983)
J. PARKING STRUCTURE (1983)
K. MEDICAL OFFICE BUILDING (1986)
L. BROCKTON STORAGE BUILDING (1958)
M. WOMEN'S SERVICES BUILDING (1981)
N. MEDICAL OFFICE BUILDING (TO BE DEMOLISHED)
O. PARKING STRUCTURE (UNDER CONSTRUCTION)
P. MEDICAL OFFICE BUILDING (REPLACES BUILDING N, UNDER CONSTRUCTION)
Q. RAINCROSS MEDICAL OFFICE BUILDING (1996)



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SOURCE: Kimley-Horn and Associates 2013 ; CITY OF RIVERSIDE GIS DATA

FIGURE 4.7-1
On-Site and Municipal Drainage System

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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The project site is currently highly developed and consists mostly of impervious surfaces such as pavement, sidewalks, and roofs. Approximately 22% of the site is considered to be pervious and consists of landscaped areas within planting beds or along the site perimeter. The majority of the site has mild to moderate slopes, with exception of a roughly 30-foot grade difference near the center of the site that slopes from east to west. Stormwater runoff from the site generally flows to one of five outfalls as shown on Figure 4.7-1, On-Site and Municipal Drainage System. Outfall No. 1 is located at the northeastern corner of the intersection of Brockton Avenue and Tequesquite Avenue and collects runoff from Drainage Management Area (DMA) 1, which accounts for approximately 52% of the total runoff from the site, as shown on Figure 4.7-1. Runoff collected from DMA 1 is treated in an infiltration system located in the corner of the project site north of Tequesquite Avenue and east of Brockton Avenue. The infiltration system consists of 130 linear feet of 60-inch perforated corrugated metal pipe that collects, treats (via infiltration), and slowly releases the water collected in DMA 1 into the stormwater drainage system at Outfall No. 1. The infiltration system, which has a total water storage capacity of approximately 13,200 cubic feet in its pipe, was designed with excess capacity in anticipation of Phases I, IIb, and IIc, and exceeds the total required design capacity of full buildout of DMA 1.

Outfall No. 2, a curb inlet, is located on the south side of 14th Avenue just north of the Riverside Community Players Theatre and collects approximately 19% of the runoff from the northeastern portion of the site in DMA 2. Outfall No. 3 accepts approximately 16% of the site runoff from the southeastern portion of the site and is located in the southeastern corner of the site along Magnolia Avenue. Outfall No. 4 accepts runoff from DMA 4 that equates to approximately 0.03% of the site runoff. Outfall No. 4 is located at the end of Tequesquite Avenue. Outfall No. 5 is located in the parking lots located east of the Raincross Medical Office Building (Building Q) and accepts runoff from DMA 5. Outfall No. 5 collects approximately 12% of the site's runoff. For the locations of all outfalls and DMAs see Figure 4.7-1, On-Site and Municipal Drainage System (Kimley-Horn 2013a, Appendix L).

Water Quality

Water quality is affected by sedimentation caused by erosion, by runoff carrying contaminants, and by direct discharge of pollutants (point-source pollution). As land is developed, the new impervious surfaces send an increased volume of runoff containing oils, heavy metals, pesticides, fertilizers, and other contaminants (non-point-source pollution) into adjacent watersheds.

Stormwater that accumulates on impervious surfaces, such as parking lots, rooftops, and streets, drains directly and indirectly to waters of the United States. The City's stormwater conveyance system is separate from the sanitary sewer system and therefore does not receive

any treatment prior to being discharged into streams, bays, and the ocean. The primary pollutants of concern in urban runoff are sediments, nutrients, heavy metals, organic compounds, trash and debris, oils, bacteria, and pesticides. Construction-related pollutants include sediments, concrete, paints and solvents, and hazardous materials associated with operation and maintenance of heavy equipment.

Under Section 303(d) of the Clean Water Act (CWA), the State Water Resources Control Board (SWRCB) is required to develop a list of water quality limited segments for jurisdictional waters of the United States. The waters on the list do not meet water quality standards, and therefore, the RWQCB was required to establish priority rankings and develop action plans, called Total Maximum Daily Loads, to improve water quality. The U.S. Environmental Protection Agency (EPA) approved the Santa Ana RWQCB's 303(d) list of water quality limited segments in October 2011. The list includes pollutants causing impairment to receiving waters or, in some cases, the condition leading to impairment. As discussed above, surface flows from the project site are discharged through the municipal stormwater drainage system to Reach 3 of the Santa Ana River. Known pollutants in Reach 3 are copper (with impairment during the wet season only) and lead (EPA 2011).

Related Regulations

Federal

Clean Water Act

The EPA regulates water quality under the CWA (also known as the Federal Water Pollution Control Act). Enacted in 1972 and significantly amended in subsequent years, the CWA is designed to restore and maintain the chemical, physical, and biological integrity of waters in the United States. The CWA provides the legal framework for several water quality regulations, including National Pollutant Discharge Elimination System (NPDES) Permits, effluent limitations, water quality standards, pretreatment standards, anti-degradation policy, non-point-source discharge regulation, and wetlands protection.

The CWA requires NPDES permits for the discharge of pollutants to waters of the United States from any point source. In 1987, the CWA was amended to require that the EPA establish regulations for permitting of municipal and industrial stormwater discharges under the NPDES permit program. The EPA published final regulations regarding stormwater discharges on November 16, 1990. The regulations require that municipal separate storm sewer system (MS4) discharges to surface waters be regulated by an NPDES permit. Surface runoff from the project site is permitted under the municipal NPDES permit, for which the City is a co-permittee.

The EPA has delegated the responsibility for administration of portions of the CWA to state and regional agencies. The CWA requires the states to adopt water quality standards for receiving water bodies and to have those standards approved by the EPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing), along with water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations or levels of constituents, such as lead, suspended sediments, and fecal coliform bacteria, or they are narrative statements that represent the quality of water supporting a particular use.

National and State Safe Drinking Water Acts

The federal Safe Drinking Water Act was established in 1974 and sets drinking water standards throughout the country; it is administered by EPA. The drinking water standards established in the act, as set forth in the Code of Federal Regulations (CFR), are referred to as the National Primary Drinking Water Regulations (Primary Standards; 40 CFR 141) and the National Secondary Drinking Water Regulations (Secondary Standards; 40 CFR 143).

California passed its own Safe Drinking Water Act in 1986 authorizing the state's Department of Health Services to protect the public from contaminants in drinking water by establishing maximum contaminants levels, as set forth in the California Code of Regulations (CCR), Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the EPA, as required by the federal Safe Drinking Water Act.

EPA California Toxics Rule

Due to gaps in California's regulations, the EPA promulgated the California Toxics Rule (40 CFR 131.38), which established numeric water quality criteria for certain toxic substances in California inland surface waters and enclosed bays and estuaries. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for water bodies that are designated by the Santa Ana RWQCB as having beneficial uses protective of aquatic life or human health. The California Toxics Rule criteria are applicable to the receiving waters from the project site.

State

Porter-Cologne Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the principal legal and regulatory framework for water quality control in California. The Porter-Cologne Act is embodied in the California Water Code, which authorizes the SWRCB to implement the provisions of the federal CWA.

The State of California is divided into nine regions, each governed by an RWQCB. The nine RWQCBs implement and enforce provisions of the California Water Code and the CWA under the oversight of the SWRCB. The City is located within the purview of the Santa Ana RWQCB (Region 8), and must comply with applicable elements of the region's Basin Plan, as well as the Porter-Cologne Act.

Each RWQCB must formulate and adopt a water quality control plan for its region. The Santa Ana RWQCB has adopted and periodically amends the Water Quality Control Plan for the Santa Ana River Basin. The Santa Ana RWQCB Basin Plan must conform to the policies set forth in the Porter-Cologne Act as established by the SWRCB in its state water policy. The Porter-Cologne Act also provides the RWQCBs with authority to include within their basin plan water discharge prohibitions applicable to particular conditions, areas, or types of waste. The Water Quality Control Plan for the Santa Ana River Basin was most recently updated in June 2011 (RWQCB 2011).

Construction General Permit

Pursuant to CWA Section 402(p), which requires regulations for permitting of certain stormwater discharges, the SWRCB has issued statewide general NPDES Permit and Waste Discharge Requirements for stormwater discharges from construction sites (NPDES No. CAS000002, SWRCB Resolution No. 2009-0009-DWQ, Modification of Water Quality Order 99-08-DWQ SWRCB NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit; adopted by the SWRCB on September 2, 2009, and amended in 2011 and 2012)). Construction sites that disturb 1 acre or more of soil are required to obtain a Construction General Permit. The Construction General Permit requires several items in order to be eligible for coverage under the permit, including the preparation of a stormwater pollution prevention plan (SWPPP) that describes project-specific best management practices (BMPs) to reduce erosion and sedimentation, such as incorporation of infiltration basins, vegetated swales, setbacks and buffers, rooftop and impervious surface disconnection, bioretention cells, rain gardens, rain cisterns, implementation of pollution/sediment/spill control plans, training, and other structural and non-structural actions (SWRCB 2012).

Drainage Area Management Plan

The project site is located in the Drainage Area Management Plan for the Santa Ana Region. The Drainage Area Management Plan addresses the requirements of the MS4 permits issued to the Riverside County co-permittees by the Santa Ana RWQCB. The plan serves to document Santa Ana Region MS4 permit compliance programs and to provide guidance to the permittees, including the City, in the development and implementation of their local implementation plans, which contain the enforceable elements of the permittee compliance programs. Each permittee's

local implementation plan describes the specific urban runoff management programs and activities to be implemented to comply with the MS4 permit. In accordance with Provision IV.B of the 2010 Santa Ana Region MS4 Permit, the permittees, including the City, completed their individual local implementation plans on May 24, 2013 (RWQCB 2013).

The 2010 Santa Ana Region MS4 Permit requires that a water quality management plan (WQMP) be prepared for all projects within the region that meet certain categories or thresholds and for which a discretionary approval is sought. All phases of the project meet the threshold for significant redevelopment projects, which requires that a WQMP be prepared where a project includes the "addition or replacement of 5,000 square feet (0.12 acre) of impervious surface on an already developed site." Therefore, all phases of the project will be required to prepare a phase-specific WQMP or revise the existing WQMP for the project that must be reviewed and approved by the City and the Santa Ana RWQCB prior to the start of construction.

Local

The Riverside Municipal Code contains several provisions regulating the discharge of stormwater and changes in hydrology. For example, Title 17 of the code governs grading activities in the City. The Grading Code's purpose, in part, is to "protect life, limb, property, the public welfare and the physical environment by regulating grading on private property." Most grading exceeding 1 acre requires a grading permit from the City. To obtain a permit, applicants must supply a grading plan, interim erosion control plan, preliminary soils report, payment of review fee, and applicable California Department of Fish and Wildlife forms. If applicable, they must also demonstrate compliance with the Construction General Permit described previously.

In addition, Title 14 of the Riverside Municipal Code, Public Utilities, Chapter 14.12, regulates discharges into the City's sewer and storm drain systems and implements the City's requirements under the MS4 permit. Among other things, the chapter prohibits discharges to the City's sewer and storm drain systems that contain pollutants or that would impair the operation of those systems. The City requires that pollutants of concern be treated by a California Stormwater Quality Association-approved treatment BMP with medium to high removal rates. Finally, that chapter gives the City enforcement authority to declare violations, apply penalties, and impose stop-work orders, monitoring requirements, and other enforcement mechanisms. Although not a regulation, the Santa Ana Watershed Project Authority is managing a study supported by the Nitrogen/TDS [Total Dissolved Solids] Task Force, which is a consortium of water supply and wastewater management agencies in the region. The task force is studying nitrogen and total dissolved solids management issues in the watershed, including water quality objectives and regulatory approaches to recharge and wastewater reclamation. Sampling and computer modeling for the Santa Ana River Basin by the RWQCB indicate that levels of total dissolved solids/minerals and nitrogen (mainly in the form of nitrate) in the Santa Ana River exceeded water quality objectives or would do so in the future without suitable management. Should any

regulations or standards be developed in the future from this study, the City would be required to comply. The Santa Ana River is the focus of a separate planning effort.

City of Riverside General Plan 2025

The Open Space and Conservation Element of the City's General Plan 2025 (City of Riverside 2007) includes the following policies related to hydrology. The project will be consistent with these policies.

- **Policy OS-10.2:** Coordinate plans, regulations, and programs with those of other public and private entities, which affect the consumption and quality of water resources within Riverside.
- **Policy OS-10.4:** Develop a recommended native, low-water use, and drought-tolerant plant species list for use with open space and park development. Include this list in the landscape standards for private development.
- **Policy OS-10.6:** Continue to enforce RWQCB regulations regarding urban runoff.
- **Policy OS-10.7:** Work with the RWQCB in the establishment and enforcement of urban runoff water quality standards.
- **Policy OS-10.9:** Evaluate development projects for compliance with NPDES requirements, and require new development to landscape a percentage of the site to filter pollutant loads in stormwater runoff and provide groundwater percolation zones.

4.7.2 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS (Appendix A) and Appendix G of the CEQA Guidelines, the project could have a significant impact on hydrology and water quality if the project would:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site.

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site.
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

4.7.3 Project Elements That Can Reduce Impacts

With the project, surface runoff from the project site would drain to the existing stormwater system through one of the five existing stormwater outfalls currently collecting stormwater from the site (described above and shown on Figure 4.7-1). The project site includes an existing infiltration system located in the corner of the project site north of Tequesquite Avenue and east of Brockton Avenue that collects, treats, and slowly releases the water collected on site from DMA 1 prior to draining into the stormwater drainage system at Outfall No. 1. The infiltration system, which has a total water storage capacity of approximately 13,200 cubic feet in its pipe, was designed with excess capacity in anticipation of Phases I, IIb, and IIc, and exceeds the total required design capacity of full buildout within DMA 1.

The project includes a new second infiltration system that would be built in the northern portion of the site and would collect and treat runoff from DMA 2 (where Phase IIa would be constructed) prior to draining into the municipal storm drain system through Outfall No. 2. Though the precise location and design of this second infiltration system is not known at this time because the exact location, size of buildings, and grading relationships are not known for Phase IIa, the second infiltration system is expected to be constructed of materials similar to the existing on-site infiltration system, be of the appropriate size to collect and treat all surface flows collected in DMA 2 (which would be approximately the same surface flows as current flows within DMA 2, or approximately 15.000 cubic feet during a 2-year flood event), and be located within DMA 2 close to where this infiltration system would connect to the stormwater drainage system at Outfall No. 2. The City and the Santa Ana RWQCB will have final approval of the revised project-specific or phase-specific WQMP prior to construction of Phase IIa and installation of the second infiltration system. Per the project-specific WQMP, the new infiltration system would have a high removal efficiency percentage (equal to or greater than 80%) and would address pollutants such as sediments, nutrients, trash, metals, bacteria, oil and grease, and organics.

Additionally, as outlined in Table 2.0-5 in the Project Description chapter of this document, the project includes numerous measures that will be incorporated related to hydrology and water quality. This information is discussed in more detail below.

4.7.4 Environmental Impacts Before Mitigation

Threshold: Would the project violate any water quality standards or waste discharge requirements?

Project- and Program-Level Elements

Construction

During construction of all phases of the project, grading would occur, bare soils would be exposed, and soil and material stockpiles would be established. Fuels, lubricants, and solid and liquid wastes would be stored within active construction areas. If the construction areas are not properly managed to contain loose soils and liquid and solid contaminants, significant short-term water quality impacts could occur due to runoff from the construction zone.

In order to address the risk of chemicals used during construction affecting water quality by entering the stormwater runoff, the project is required to obtain a Construction General Permit pursuant to the NPDES regulations established under the CWA. The permit will require the preparation and implementation of a SWPPP, which will describe the BMPs that will be implemented to prevent degradation of surface and ground waters during construction activities such as demolition, trenching, and grading. With implementation of the BMPs described in the project-specific SWPPP required per the project's Construction General Permit, the project is not expected to be a source of substantial water quality contaminants during construction and impacts would be **less than significant**.

Post-Construction

Water quality standards affecting the project are stormwater related, since the project is not an industrial facility that would be generating significant amounts of polluted wastewater effluent. Pollutants of concern from the hospital site are anticipated to be those typical of a commercial/ industrial development, and include:

- Pesticides and herbicides, and an increase in nutrients from fertilizers used on landscaped areas
- Litter/debris, including rubber, grease, solids, leaves, grass, and trash from visitor areas and parking lots/structures
- Vehicular fluids, including antifreeze, motor oil, brake fluid, gasoline, and transmission fluid emanating from paved areas and parking structures on the site
- Organic compounds from solvents
- Bacteria, possibly from animal waste.

An increase in pollutant levels in the runoff conveyed to the City storm drain system could violate water quality standards and the Waste Discharge Requirements of the City's MS4 permit. Additionally, the City requires that pollutants of concern be treated by a California Stormwater Quality Association-approved treatment BMP with medium to high removal rates. As discussed above, the project includes an on-site treatment train of BMPs. These BMPs consist of a diversion manhole, a hydrodynamic separator, and an infiltration system located in the corner of the project site north of Tequesquite Avenue and east of Brockton Avenue that collects, treats (via infiltration), and slowly releases the water collected on site from DMA 1 prior to draining into the stormwater drainage system at Outfall No. 1 (see Figure 4.7-1).

Using a manhole with an internal weir, the treatment train diverts low flows out of the main line of the underground storm drain system and into the treatment train. The diversion manhole and hydrodynamic separator (CDS 2020) are designed to meet the treatment flow rate while bypassing flows in excess of the treatment flow rate (up to approximately 26 cubic feet per second during the 100-year storm). The infiltration system is designed to meet the required treatment volume.

The infiltration system, which has a total water storage capacity of approximately 13,200 cubic feet in its pipe, was designed with excess capacity in anticipation of Phases I, IIb, and IIc, and exceeds the total required design capacity of full proposed buildout within DMA 1. This infiltration system was designed in accordance with WQMP requirements, and would adequately filter any potential pollutants of concern generated on the site prior to entering the municipal storm drain system at Outfall No. 1.

Phase IIa of the project includes a new second infiltration system that would be built in the northern portion of the site and would collect and treat runoff from DMA 2 where Phase IIa would be constructed prior to draining into the municipal storm drain system through Outfall No. 2. Though the exact location, building sizes, and grading relationships of Phase IIa are not known at this time, and therefore the design and exact location of this second infiltration system is not known, it is expected that the second infiltration system would be constructed of materials similar to the existing on-site infiltration system, that it would be of the appropriate size to collect and treat all surface flows collected in DMA 2 (which would be approximately the same as current surface flows within DMA 2, or approximately 15,000 cubic feet during a 2-year flood event), and that it would be located within DMA 2 close to where this infiltration system would connect to the stormwater drainage system at Outfall No. 2. Per the project-specific WQMP, the new infiltration system would have a high removal efficiency percentage (equal to or greater than 80%) and would address pollutants such as sediments, nutrients, trash, metals, bacteria, oil and grease, and organics. Additionally, the City and the Santa Ana RWQCB will have final approval of the revised phase-specific or revised project-specific WQMP prior to installation of the infiltration system and would ensure that the new infiltration system complies with the City's

requirement that pollutants of concern be treated by a California Stormwater Quality Association-approved treatment BMP with medium to high removal rates.

In addition to infiltration systems described above, the project includes the following site-design and source-control BMPs as described in Table 2.0-5, Project Design Features, that would further ensure that water quality on the project site would not be degraded as a result of project construction or operation. The site-design and source-control BMPs to be incorporated by the project are as follows:

- Curbs and gutters will collect runoff and convey it to the diversion manhole, hydrodynamic separator, and infiltration system, unless technically infeasible, in which case Filterra bioretention units could be used.
- Parking lots will be designed to minimum required pavement width, according to City guidelines.
- Stormwater drainage from loading dock areas will be collected and treated prior to discharge off site.
- On-site soils within landscaped areas will be scarified.
- The City's Landscape Regulations (Chapter 19.570) will be adhered to for landscaped areas. Additional native trees and large shrubs will be planted where needed. New trees will be planted according to the City's design guidelines for the area required per tree. The landscaping will meet the City's approved landscape materials list.
- Rain shutoff devices to prevent irrigation during and after precipitation will be included in the design. The irrigation system will include control mechanisms to allow staff to adjust water supplies to areas based on need.
- Stormwater conveyance system inlets will include language indicating that water flows to the local water resource.
- Trash receptacles will be provided on site with signage.
- A fire sprinkler will be designed to discharge into the sanitary sewer.
- The storm drain system, hydrodynamic separator, infiltration system, parking lots, and trash pickup will be maintained as part of the ongoing landscaping maintenance costs.

Since the City's Public Works Department will condition the project to implement the structural and non-structural BMPs outlined in the project design features described in Table 2.0-5, Project Design Features, and since the project is required to prepare a SWPPP and WQMP for each phase, the potential impacts associated with violations of water quality

standards or Waste Discharge Requirements would be **less than significant** for all phases, and no mitigation measures are required.

Threshold: Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Project- and Program-Level Elements

No phases of the project include the use of on-site groundwater for its potable or irrigation water sources. The project site is located within the Riverside South Basin groundwater basin. Where the surface of the site is permeable, surface water flows may percolate to the Riverside South Basin below the project site. As shown in Table 4.7-1, the project would not substantially change the amount of impermeable surfaces on the site. The majority of surface runoff from the site is currently collected by the municipal storm drain system and does not percolate to the groundwater basin below the site. During Phases I, IIb, and IIc, the project would result in a decrease of 0.05 acre in permeable surface within DMA 1. During Phase IIa, the project would result in an increase of 0.84 acre in permeable surface within DMA 2. The overall net increase of 0.79 acre in permeable surface at the site would result in a slight increase in water percolation to the groundwater basin below. Therefore, the project would not substantially alter the amount of percolation and recharge of local groundwater. Impacts to groundwater supplies or recharge would be **less than significant**, and no mitigation measures are required.

Table 4.7-1
Existing and Project Site Stormwater Calculations

	Total Area (ac)	Impervious Area (ac)	Pervious Area (ac)	2-Year Event				10-Year Event				100-Year Event			
				Runoff Volume (cf)	*% Change in Runoff Volume*	*Peak Flow (cfs)*	*% Change in Peak Flow*	*Runoff Volume (cf)*	*% Change in Runoff Volume*	*Peak Flow (cfs)*	*% Change in Peak Flow*	*Runoff Volume (cf)*	*% Change in Runoff Volume*	*Peak Flow (cfs)*	*% Change in Peak Flow*
Outfall No. 1 (DMA 1)															
Pre-Development	14.36	10.83	3.53	40,691		6.28		86,505		14.53		165,379		27.78	
Phase I	14.36	10.98	3.38	41,993	3.2	6.55	4.3	88,326	2.1	14.84	2.1	167,678	1.4	28.17	1.4
Phases IIb and IIc	14.36		3.38	41,993	3.2	6.55	4.3	88,326	2.1	14.84	2.1	167,678	1.4	28.17	1.4
Outfall No. 2 (DMA 2)															
Pre-Development	3.81	3.33	0.47	15,297		3.48		28,885		6.58		51,043		11.63	
Phase I	3.81	3.33	0.47	15,297	0.0	3.48	0.0	28,885	0.0	6.58	0.0	51,043	0.0	11.63	0.0
Phase IIa	3.81	2.49	1.31	7,987	−47.8	1.56	−55.3	18,811	−34.9	4.11	−37.6	38,437	−24.7	8.76	−24.7
Outfall No 3 (DMA 3)															
Pre-Development	3.51	2.96	0.56	12,819		2.9		25,019		5.7		45,193		10.30	
Phases I, IIa, IIb, and IIc	3.51	2.96	0.56	12,819	0	2.9	0	25,019	0	5.7	0	45,193	0	10.30	0
Outfall No. 4 (DMA 4)															
Pre-Development	0.46	0.02	0.43	28		0.00		386		0.01		1,527		0.22	
Phases I, IIa, IIb, and IIc	0.46	0.02	0.43	28	0	0.00	0	386	0	0.01	0	1,527	0	0.22	0
Outfall No. 5 (DMA 5)															
Pre-Development	2.82	2.32	0.49	9,811		2.20		19,451		4.43		35,506		8.09	
Phases I, IIa, IIb, and IIc	2.82	2.32	0.49	9,811	0	2.20	0	19,451	0	4.43	0	35,506	0	8.09	0

Source: Kimley-Horn 2013a (Appendix L).
ac = acre; cf = cubic feet; cfs = cubic feet per second

Threshold: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?

Project- and Program-Level Elements

Generally, the site has relatively mild to moderate slopes of less than 5% with the exception of a roughly 30-foot grade difference near the center of the site that slopes toward the west. Stormwater runoff generated from the site utilizes one of five outfall locations, as identified and labeled in Figure 4.7-1, On-Site and Municipal Drainage System. There are no existing drainage courses on the project site that would be affected by the buildout of the Specific Plan. As described in the Hydrology and Hydraulics Study (Kimley-Horn 2013a; Appendix L) and discussed above, development of the site during all phases largely involves replacement of existing impervious surfaces and would not result in a substantial change in drainage patterns, peak flow rates, or runoff volumes from the site. As shown in Table 4.7-1, Existing and Project Site Stormwater Calculations, Phases I, IIb, and IIc of the project would result in a 3.2% increase in runoff volume to the existing stormwater system at Outfall No. 1 under a 2-year storm event (see Figure 4.7-1). The Santa Ana RWQCB considers an increase in runoff volume during a 2-year storm event of 5% or less to be insignificant (RWQCB 2012). Prior to discharge into the storm drain system at Outfall No. 1 being constructed with Phase I, runoff would be treated in the new infiltration system located at the northwest corner of the intersection of Tequesquite Avenue and Brockton Avenue, as shown in Figure 4.7-1.

Phase IIa of the project would result in a 47.8% decrease in the runoff rate draining to Outfall No. 2 under a 2-year storm event (see Figure 4.7-1). The reduction in runoff volume is due to the infiltration system that would slow the rate of runoff, as well as to an increase of 0.84 acre in impervious surface within DMA 2, and does not reflect a change in the existing drainage pattern on the site. As shown in Table 4.7-1, the project would not change the total acreage of any of the DMAs on the site. Runoff volumes to the other three outfalls would not be impacted by the project.

As stated above, an increase in runoff volume during a 2-year storm event of 5% or less is considered insignificant by the Santa Ana RWQCB (RWQCB 2012). The reduction of 47.8% in runoff volume to Outfall 2 is due to the infiltration system that would slow the rate of runoff, as well as to an increase of 0.84 acre in impervious surface within DMA 2, and does not reflect a change in the existing drainage pattern on the site. Therefore, all phases of the project would not substantially alter the existing drainage pattern on the site or in the area. Impacts related to drainage patterns of the site or area would be **less than significant**, and no mitigation measures are required.

Threshold: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

Project- and Program-Level Elements

As discussed above, development of the site largely involves replacement of existing impervious surfaces and would not result in a substantial increase in drainage patterns, peak flow rates, or runoff volumes from the site. Phases I, IIb, and IIc of the project would result in a 2.1% and 1.4% increase in runoff volume under a 10-year and 100-year storm event, respectively, to Outfall No. 1 due to an increase of 0.15 acre of impervious surface in DMA 1 (see Table 4.7-1). This increase in runoff volume is not considered substantial and is not expected to contribute to flooding on or off site. Phase IIa would result in a 47.8% decrease in runoff volume to Outfall No. 2 due to the infiltration system that would slow the rate of runoff, as well as to an increase of 0.84 acre in impervious surface within DMA 2, which does not reflect a change in the existing drainage pattern on the site. This would result in a reduced risk of flooding in DMA 2.

As shown in Table 4.7-1, the project would not change the total acreage of any of the DMAs on the site. Runoff volumes to the other three outfalls would not be impacted by the project. Overall, although the project would result in a slight increase in runoff volume into the storm drain system at Outfall No. 1, development of the project would not cause a substantial increase in on- or off-site flooding during the projected 50- or 100-year developed storm event or result in a permanent adverse change to the movement of surface water, and the capacity of the existing storm drain system would not be impacted. Consequently, impacts related to drainage patterns of the site or potential flooding would be **less than significant**, and no mitigation measures are required.

Threshold: Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Project- and Program-Level Elements

As discussed above, with implementation of the BMPs described in the project-specific SWPPP required per the project's Construction General Permit, temporary construction activities are not expected to be a source of substantial runoff water that would exceed the existing stormwater drainage system or contaminants that would be a substantial source of polluted runoff during construction of any phases of the project. Based on the Hydrology and Hydraulics Study for the project (Appendix L) and Table 4.7-1, the buildout of all phases of the project would result in no change in the runoff volumes draining to three of the five

outfalls on the site (Outfalls No. 3, No. 4, and No. 5). Implementation of Phase IIa would result in a 47.8% reduction in runoff volume to Outfall No. 2 due to the infiltration system that would treat the runoff and slow the rate of runoff, as well as due to an increase of 0.84 acre in impervious surface within DMA 2, which does not reflect a change in the existing drainage pattern on the site.

The project would result in an increase in runoff volume to Outfall No. 1 of 3.2% during a 2-year storm even with implementation of Phases I, IIb, and IIc, due to an increase in impervious surface within DMA 1 of 0.05 acre. Since the Santa Ana RWQCB considers an increase in runoff volume during a 2-year storm event of 5% or less to be insignificant (RWQCB 2012), the increase of 3.2% in runoff volume to Outfall No. 2 during a 2-year storm event is not considered to be substantial. Consequently, development of the project would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, impacts related to the existing and planned stormwater drainage systems would be **less than significant**. Additionally, impacts related to pollution of runoff would be **less than significant**. No mitigation measures are necessary.

4.7.5 Mitigation Measures

Impacts related to hydrology and water quality were found to be less than significant through compliance with existing regulations or as a result of project design features. Therefore, no mitigation measures are necessary.

4.7.6 Environmental Impacts After Mitigation Is Incorporated

Since there would be no significant impacts needing mitigation, residual impacts would be less than significant.

4.7.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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4.8 LAND USE AND PLANNING

The focus of the following discussion and analysis, based on the Initial Study/Notice of Preparation (IS/NOP) public comment period, and City of Riverside (City) Planning Commission workshop held on May 23, 2013, is related to the project's potential conflicts with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, Specific Plan, and/or Zoning Code) resulting from the implementation of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project). During the preparation of the IS, potential impacts related to the project physically dividing an established community and potential conflicts with an applicable habitat conservation plan or natural community conservation plan were found to be less than significant; therefore, these impacts are not discussed in the Draft Environmental Impact Report (EIR).

In addition to other documents, the following references were used in the preparation of this section of the EIR:

- City of Riverside General Plan (GP) 2025 (City of Riverside 2007a)
- City of Riverside Downtown Specific Plan (DSP; City of Riverside 2002)
- City of Riverside Municipal Code (Title 19) (City of Riverside 2007b)
- Specific Plan prepared for the project (SP; Dudek n.d.).

4.8.1 Setting

Existing Conditions

On-Site Land Uses

RCH currently operates under a conditional use permit that dates back to the 1960s and is consistent with the Downtown Specific Plan–Health Care (DSP–HC District). Under the DSP–HC District, hospitals are permitted with a conditional use permit. The approximately 22.5-acre project site is developed with a hospital campus including a patient care tower, medical office buildings, an administration building, a health education center, a storage building, a women's services building, a helipad/helistop, parking structures, and surface parking lots. Current RCH campus buildings are listed in Table 4.8-1 and depicted on Figure 4.8-1, Site Plan – Baseline Conditions.

Table 4.8-1
Existing Riverside Community Hospital Uses on Site

ID on Figure 4.8-1	Building/Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed
A	Building A	Hospital – lab, dietary, administration services	58,705	N/A	1925
B	Building B	Hospital	176,040	273	1965
C	Building C	Hospital – ICU and med/surg	111,450	34	1987
D	Building D	Hospital	41,431	66	1958
E	Building E	Hospital	3,565	N/A	1954
F	Building F	Hospital	1,077	N/A	1996
G	Parking structure and helipad	Parking	59,500	N/A	2002
H	Health education center	Meeting rooms	12,543	N/A	1979
I	Parking structure	Parking	96,084	N/A	1982
J	Parking structure	Parking	101,049	N/A	1986
K	Medical Office Building 2	Cancer center	65,503	N/A	1986
L	Brockton Storage Building	Storage	4,450	N/A	1958
M	Women's services building	Community outreach, lactation building	1,900	N/A	1981
N	Medical Office Building1	Medical offices	61,135	N/A	1975
Q	Raincross Medical Office Building	Medical offices	57,754	N/A	1996
		Total Square Footage	852,186		

Source: Kimley-Horn 2014 (see Appendix I).
N/A = not applicable; ICU = intensive care unit; med/surg = medical/surgical

Project Baseline

The RCH campus currently occupies approximately 852,186 square feet of development, as described in Table 4.8-1. Figure 4.8-1 depicts existing structures, existing structures to be demolished, and previously approved structures to be built. For purposes of the preparation of the SP and analysis in the EIR, any approved ongoing development currently under construction or commencing construction within approximately 12 months of the release of the NOP is considered part of the existing development/approvals baseline.

A new, five-level, 385,500-square-foot, 1,060-parking-space structure (Building O), located on the northeast corner of Brockton Avenue and Tequesquite Avenue, is currently under construction at the time of this writing and is anticipated to be completed by February 2014. Construction of a new, three-story, 61,000-square-foot medical office building (Building P), located on the northeast corner of Brockton Avenue and Tequesquite Avenue, is also currently under construction at the time of this writing and is anticipated to be completed by March 2014. These structures are to be constructed over the next 12 months and are therefore included in the baseline for this project. Table 4.8-2 includes the existing RCH buildings/structures as well as

the new parking structure and new medical office building, which are all to be considered as part of the baseline conditions (see Figure 4.8-1, Site Plan – Baseline Conditions).

Table 4.8-2
Existing and Approved Riverside Community Hospital Uses on Site – Baseline Conditions

ID on Figure 4.8-1	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed
A	Building A	Hospital – lab, dietary, administration services	58,705	N/A	1925
B	Building B	Hospital	176,040	273	1965
C	Building C	Hospital – ICU and med/surg	111,450	34	1987
D	Building D	Hospital	41,431	66	1958
E	Building E	Hospital	3,565	N/A	1954
F	Building F	Hospital	1,077	N/A	1996
G	Parking structure	Parking	59,500	N/A	2002
H	Health education center	Meeting rooms	12,543	N/A	1979
I	Parking structure	Parking	96,084	N/A	1982
J	Parking structure	Parking	101,049	N/A	1986
K	Medical Office Building 2	Cancer center	65,503	N/A	1986
L	Brockton Storage Building	Storage	4,450	N/A	1958
M	Women's services building	Community outreach, lactation building	1,900	N/A	1981
N	Medical Office Building 1	Medical offices	61,135	N/A	1975
O	Parking structure	Parking – 1,060 spaces	385,500	N/A	Construction anticipated to be completed 2014
P	Medical office building	Medical offices	61,000	N/A	Construction anticipated to be completed 2014
Q	Raincross Medical Office Building	Medical offices	57,754	N/A	1996
		Total Square Footage	1,298,686		

Source: Kimley-Horn 2014.
N/A = not applicable; ICU = intensive care unit; med/surg = medical/surgical

Surrounding Land Uses

The project site is located in downtown Riverside in an urban setting and is surrounded by existing development. Land uses to the north and west of the site are designated DSP, and land uses to the south and east are designated DSP or Public Facilities and Institutional Uses. As shown on Figure 4.8-2, Site Plan – Proposed Land Use Phase I, the existing setting of the project area is characterized by residential development to the northwest, Riverside Community Players Theatre, Grant Elementary School, and a gas station to the north; muffler services to the northeast; Newman Park and Community Medical Group of Riverside to the east; Riverside

Community College to the southeast; Calvary Presbyterian Church, Evans Sports Complex, and residential uses to the south; and commercial and industrial uses to the west.

Project

RCH is proposing a new SP on the project site. The SP is divided into phases: Phases I, IIa, IIb, and IIc. A site master plan has been developed and includes both short-term and long-range planning goals that cover construction over a 30-year period.

Phase I – 2014–2017

Phase I of the SP will focus on a new, 251,500-square-foot, seven-story hospital bed tower addition that will initially house up to 105 new licensed beds (with capacity for an additional 84 licensed beds) with 35 intensive care patient rooms and 70 medical and surgical patient rooms to accommodate families, as well as expanding its service offerings to more critically ill patients, a laboratory, and food services operations (see Figure 4.8-2). This would bring the total licensed bed count on the hospital campus to approximately 478. The hospital bed tower would also accommodate the relocation of acute care services such as dietary and laboratory services currently housed in Building A, which is not compliant with Senate Bill (SB) 1953. The hospital currently employs approximately 1,960 employees. 187 employees will relocate from Building A (119 laboratory employees and 68 dietary employees) to the new Phase I hospital tower and an additional 330 estimated employees would be needed to serve the new tower, totaling approximately 2,290 employees campus-wide. During Phase I, Building A would be used for hospital administrative support.

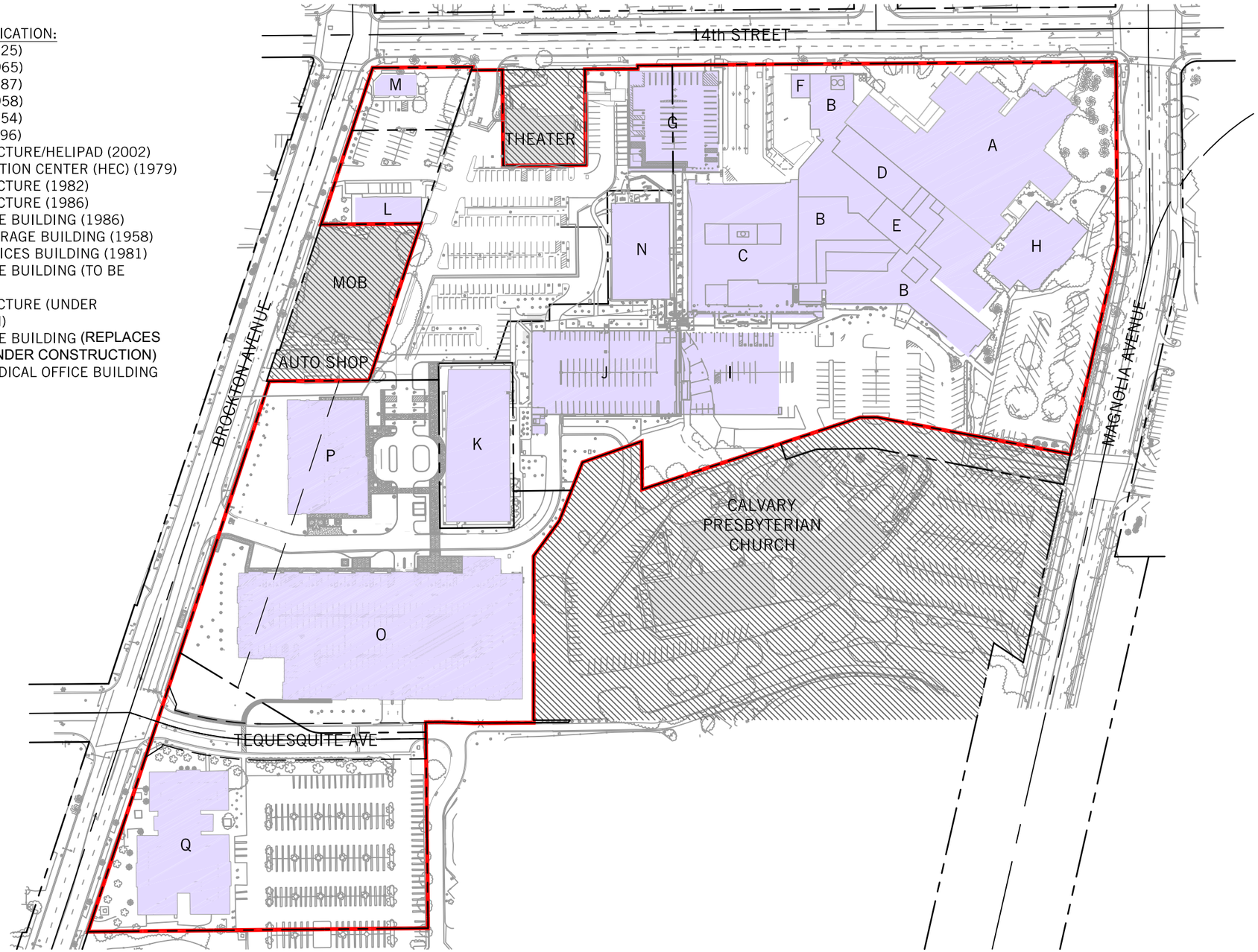
Construction of the new hospital bed tower for Phase I would eliminate 69 parking spaces. The existing Building N, Medical Office Building 1, would be demolished under Phase I to accommodate the new hospital bed tower. Building N would already be vacant prior to demolition as the physicians/staff would be relocated to the new Building P (which will be completed in March 2014 under the baseline/existing conditions). Also included in Phase I, Building B is proposed for a full seismic upgrade, including new windows as a result of the retrofit.

Phase II – 2017–2043

During Phase II of the project, it is anticipated that several new structures would be constructed on the existing 22.5-acre hospital campus over a 30-year period. Phase II would include three phases: Phase IIa, Phase IIb, and Phase IIc.

BUILDING IDENTIFICATION:

A. BUILDING A (1925)
B. BUILDING B (1965)
C. BUILDING C (1987)
D. BUILDING D (1958)
E. BUILDING E (1954)
F. BUILDING F (1996)
G. PARKING STRUCTURE/HELIPAD (2002)
H. HEALTH EDUCATION CENTER (HEC) (1979)
I. PARKING STRUCTURE (1982)
J. PARKING STRUCTURE (1986)
K. MEDICAL OFFICE BUILDING (1986)
L. BROCKTON STORAGE BUILDING (1958)
M. WOMEN'S SERVICES BUILDING (1981)
N. MEDICAL OFFICE BUILDING (TO BE DEMOLISHED)
O. PARKING STRUCTURE (UNDER CONSTRUCTION)
P. MEDICAL OFFICE BUILDING (REPLACES BUILDING N, UNDER CONSTRUCTION)
Q. RAINCROSS MEDICAL OFFICE BUILDING (1996)



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7824

SOURCE: Perkins+Will

FIGURE 4.8-1

Site Plan - Baseline Conditions

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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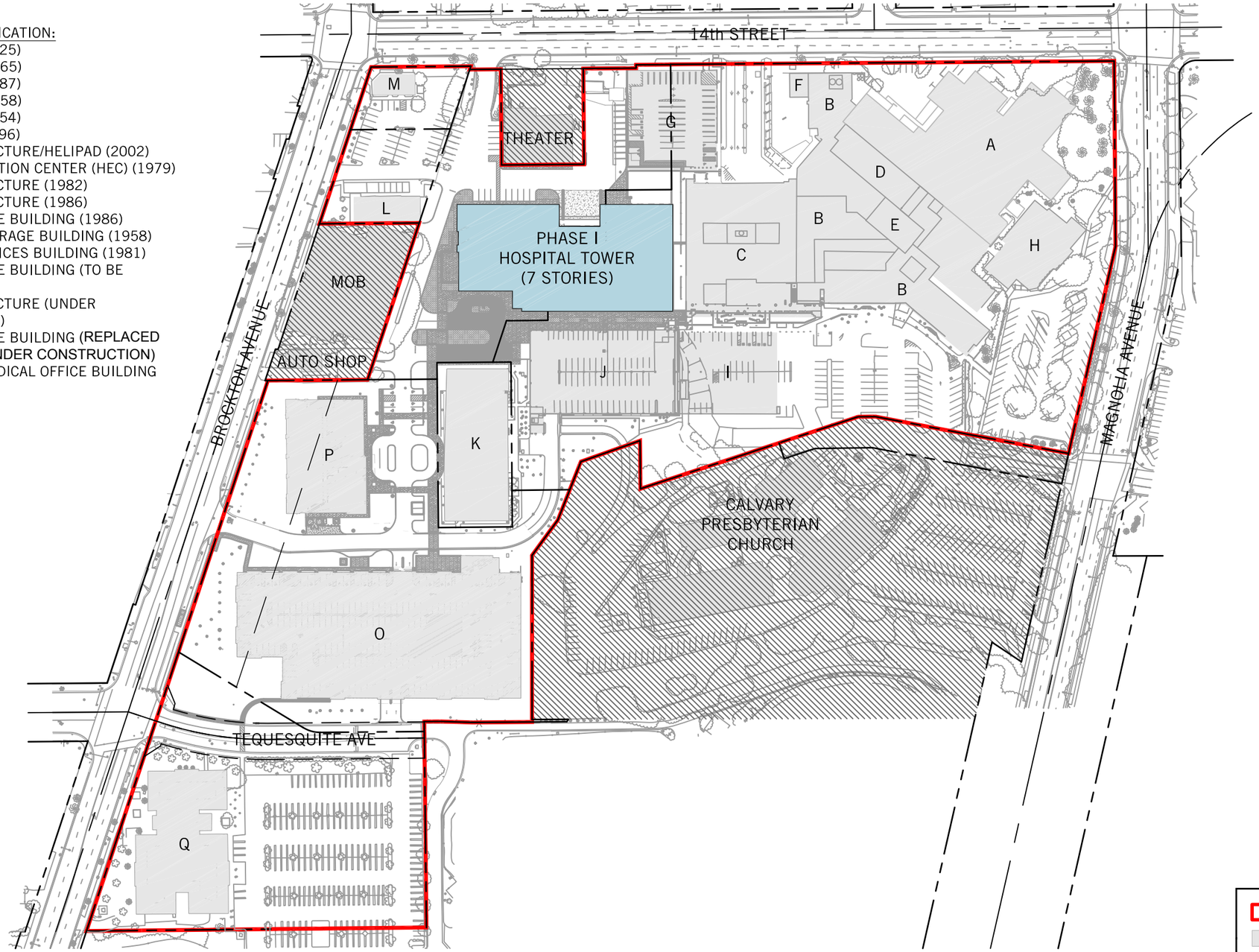
BUILDING IDENTIFICATION:

A. BUILDING A (1925)
B. BUILDING B (1965)
C. BUILDING C (1987)
D. BUILDING D (1958)
E. BUILDING E (1954)
F. BUILDING F (1996)
G. PARKING STRUCTURE/HELIPAD (2002)
H. HEALTH EDUCATION CENTER (HEC) (1979)
I. PARKING STRUCTURE (1982)
J. PARKING STRUCTURE (1986)
K. MEDICAL OFFICE BUILDING (1986)
L. BROCKTON STORAGE BUILDING (1958)
M. WOMEN'S SERVICES BUILDING (1981)
N. MEDICAL OFFICE BUILDING (TO BE DEMOLISHED)
O. PARKING STRUCTURE (UNDER CONSTRUCTION)
P. MEDICAL OFFICE BUILDING (REPLACED BUILDING N, UNDER CONSTRUCTION)
Q. RAINCROSS MEDICAL OFFICE BUILDING (1996)



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Site Plan Boundary
Existing Buildings
Proposed Building

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SOURCE: Perkins+Will

FIGURE 4.8-2

Site Plan - Proposed Land Use Phase I

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Phase IIa – 2017–2024

Phase IIa would occur between 2017 and 2024 and would consist of the demolition of Building A since it is not in compliance with SB 1953 and can no longer house acute care services (Figure 4.8-3, Site Plan – Proposed Land Use Phase II). An approximately 100,000-square-foot, mixed-use building would be proposed on the Building A site. In addition, the buildout of the shell space (84 additional licensed beds) in the Phase I tower would most likely occur during this phase (or earlier if necessary). When the Phase I tower has been built out, the maximum licensed bed capacity for the tower and the campus would be 189 and 562, respectively. Additional surface or structure parking is also anticipated to be needed in this phase to support the new space.

Phase IIb – 2024–2029

Phase IIb would occur between 2024 and 2029 and would consist of a second new, estimated nine-story, 600,000+-square-foot replacement bed tower (Figure 4.8-3), totaling 339 licensed beds (273 licensed beds relocated from Building B and 66 licensed beds relocated from Building D to the proposed replacement bed tower after the seismic upgrades are complete under Phase I). The relocation of 339 licensed beds would keep the number of licensed beds on campus at 562. Phase IIb focuses on relocating licensed beds and acute care services out of Building B and Building D to the new second tower, as those buildings are no longer in compliance with SB 1953. Once the licensed beds are relocated to the new second hospital bed tower, Building B and Building D will be used for outpatient, skilled nursing, support, and education (e.g., University of California at Riverside program space). Phase IIb includes the existing parking structures (identified as Buildings I and J on Figure 4.8-3) to be demolished prior to the construction of the Phase IIb replacement bed tower. Some additional convenience parking could be included during this phase.

Phase IIc – 2030–2043

Phase IIc would occur between 2030 and 2043 and is expected to include the following:

- Addition of 38 licensed beds, to take the campus-wide total to 600 licensed beds (this could occur in Phase IIb if need is demonstrated prior to 2030)
- Construction of ancillary services as necessary
- Construction of surface or structured parking as needed to support growth.

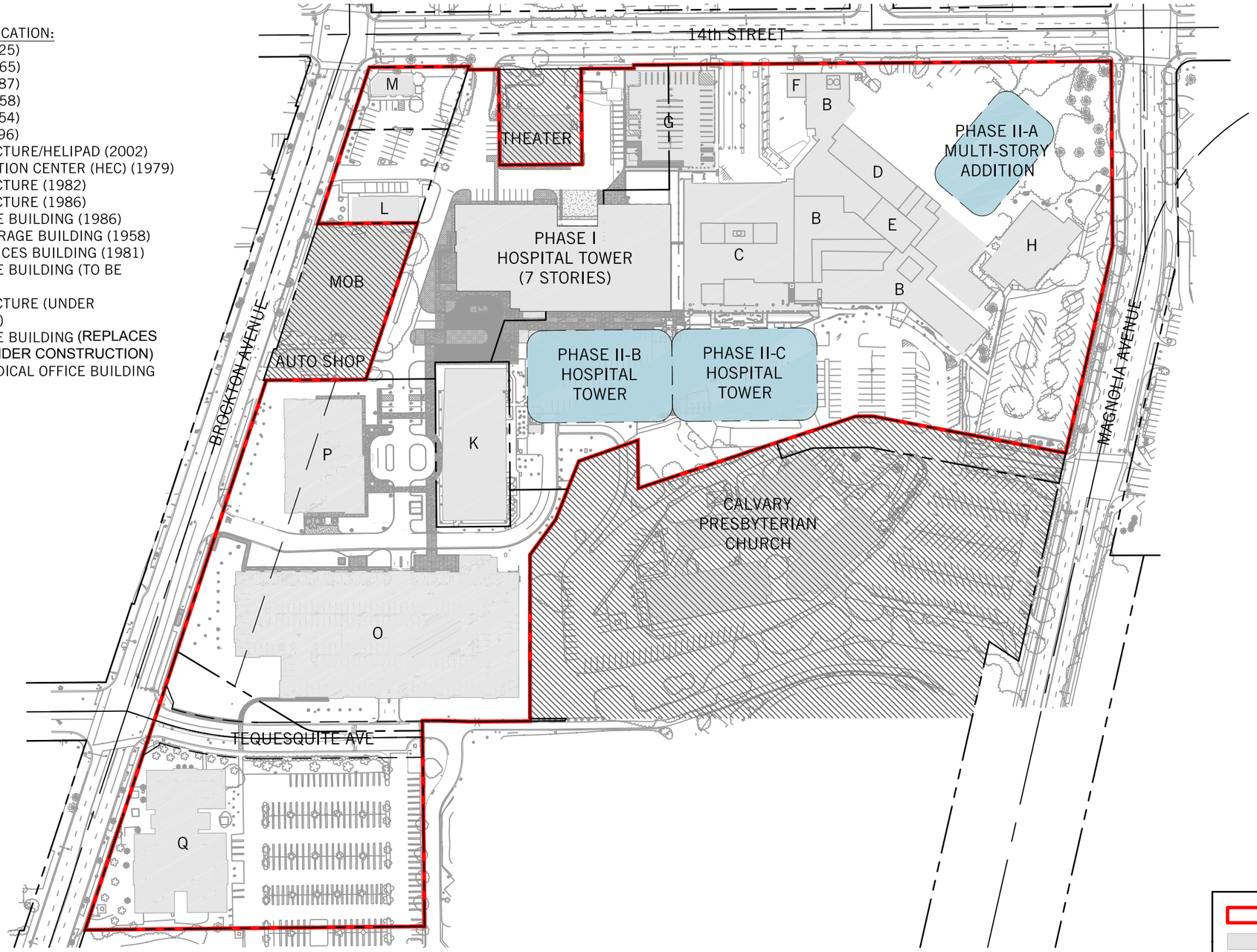
Figure 4.8-3 illustrates the general Phase IIc zone. Since Phase IIc would not occur until 2030, the exact development footprint has not yet been determined. Long-range development as part of

Phase IIc of the project could include future acute care expansions, parking structures, or other ancillary uses, including, but not limited to, the following:

- Acute care services
- Central utility plants
- Medical office buildings and clinics
- Outpatient services buildings
- Education centers
- Dental clinics
- Imaging centers
- Pharmacies
- Wellness centers
- Physical therapy or rehabilitation centers
- Community centers
- Optometry services
- Medical retail (medical supplies)
- Off-site street parking, parking structures, or surface parking lots
- Hotel facilities (requires a minor CUP).

BUILDING IDENTIFICATION:

A. BUILDING A (1925)
B. BUILDING B (1965)
C. BUILDING C (1987)
D. BUILDING D (1958)
E. BUILDING E (1954)
F. BUILDING F (1996)
G. PARKING STRUCTURE/HELIPAD (2002)
H. HEALTH EDUCATION CENTER (HEC) (1979)
I. PARKING STRUCTURE (1982)
J. PARKING STRUCTURE (1986)
K. MEDICAL OFFICE BUILDING (1986)
L. BROCKTON STORAGE BUILDING (1958)
M. WOMEN'S SERVICES BUILDING (1981)
N. MEDICAL OFFICE BUILDING (TO BE DEMOLISHED)
O. PARKING STRUCTURE (UNDER CONSTRUCTION)
P. MEDICAL OFFICE BUILDING (REPLACES BUILDING N, UNDER CONSTRUCTION)
Q. RAINCROSS MEDICAL OFFICE BUILDING (1996)



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SOURCE: Perkins+Will

FIGURE 4.8-3

Site Plan - Proposed Land Use Phase II

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Table 4.8-3 lists the existing RCH buildings/structures as well as Phase I, Phase IIa, and Phase IIb components of the project.

Table 4.8-3
Existing and Approved Riverside Community Hospital Uses on Site (Phase I, Phase IIa, and Phase IIb) of the Project

ID on Figure 4.8-1	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed	Action
A	Building A	Hospital – lab, dietary, administration services	58,705	N/A	1925	To be demolished as part of Phase IIa of the project
B	Building B	Hospital	176,040	273	1965	Part of Phase IIb of the project: 273 beds will be moved to the new Phase IIb replacement bed tower; Building B will be used for outpatient, skilled nursing, support, and education after the seismic upgrades are complete under Phase I
C	Building C	Hospital – ICU and med/surg	111,450	34	1987	No change
D	Building D	Hospital	41,431	66	1958	Part of Phase IIb of the project: 66 beds will be moved to the new Phase IIb replacement bed tower; Building D will be used for outpatient, skilled nursing, support, and education after the seismic upgrades are complete under Phase I
E	Building E	Hospital	3,565	N/A	1954	No change
F	Building F	Hospital	1,077	N/A	1997	No change
G	Parking structure	Parking	59,500	N/A	2002	No change
H	Health education center	Meeting rooms	12,543	N/A	1979	No change
I	Parking structure	Parking	96,084	N/A	1983	To be demolished as part of Phase IIb of the project
J	Parking structure	Parking	101,049	N/A	1983	To be demolished as part of Phase IIb of the project
K	Medical Office Building 2	Cancer center	65,503	N/A	1986	No change

Table 4.8-3
Existing and Approved Riverside Community Hospital Uses on Site (Phase I, Phase IIa, and Phase IIb) of the Project

ID on Figure 4.8-1	Building/ Structure	Use	Square Footage	Number of Licensed Beds	Year Constructed	Action
L	Brockton Storage Building	Storage	4,450	N/A	1958	No change
M	Women's services building	Community outreach, lactation building	1,900	N/A	1981	No change
N	Medical Office Building 1	Medical offices	61,135	N/A	1975	To be demolished as part of Phase I of the project
O	Parking structure[a]	Parking – 1,060 spaces	385,500	N/A	Construction anticipated to be completed 2014	Part of baseline conditions
P	Medical office building[a]	Medical offices	60,897	N/A	Construction anticipated to be completed 2014	Part of baseline conditions
Q	Raincross Medical Office Building	Medical offices	57,754	N/A	1996	No change
Phase I	New Phase I hospital bed tower	Hospital	251,500	189		Part of Phase I of the project
Phase II-b	New Phase II replacement bed tower	Hospital	600,000+	377[b]		Part of Phase IIb of the project
Phase II-a	Mixed-use building in location of Building A	Medical offices	100,000	N/A		Phase IIa of the project
Total Square Footage[c]			1,994,245			

Source: Kimley-Horn 2014 (Appendix I).
N/A = not applicable; ICU = intensive care unit; med/surg = medical/surgical
Notes: Phase IIc is not included in the table since specific project development details under Phase IIc are not known at this time. Buildings A, I, J, and N are not calculated in the total square footage as they are proposed for demolition as part of Phase I or Phase II of the project.
Shaded rows represent changes from baseline conditions and Phase II of the project.
[a]Part of baseline conditions.
[b]Phase IIb hospital bed tower licensed beds includes the licensed beds that would be relocated from Building B (273 licensed beds) and Building D (66 licensed beds) and future addition of 38 licensed bed to the Phase IIb hospital bed tower (273+66+28=377 licensed beds).

Related Regulations

Federal

There are no federal regulations applicable to the project.

State

California Government Code Section 65450

Section 65450 et seq. of the California Government Code authorizes cities to prepare, adopt, and administer SPs for portions of their jurisdictions, as a means of implementing the City's GP. All SPs must comply with Sections 65450–65457 of the Government Code. The RCH SP complies with all requirements mandated by state law.

Local

City of Riverside Municipal Code

Title 19 of the City's Municipal Code contains the Zoning Code for the City, and includes regulations for site planning and development. The project site is currently located within the DSP–HC District. The DSP–HC District Zone allows for a broad range of residential, office, services, commercial, educational, and institutional uses. According to the DSP, uses in the Health Care District include expansion of the existing hospital and medical-related uses and the establishment of new medical and medical support uses, and to create an attractive entry into the Downtown from the south. With the adoption of the RCH SP, the portions of theDSP–HC District that encompass the hospital campus will be rescinded to accommodate the boundaries of the RCH SP.

City of Riverside General Plan 2025

The City's GP 2025 was adopted in November 2007. The GP 2025 considers the continued growth of the City beyond the year 2025.The project site is designated DSP (see Figure 4.8-4, Existing General Plan Land Use). Most of the objectives and policies relevant to the project are contained within the GP 2025's Land Use and Community Planning Element, Circulation and Community Mobility Element, Public Safety Element, Noise Element, and Air Quality Element, as described below.

Land Use and Urban Design Element

The Land Use and Urban Design Element contain objectives and policies to preserve and enhance City-wide and neighborhood-specific character. This element of the GP 2025 described present and planned land uses and their relationship to the City's visionary goals.

Circulation and Community Mobility Element

The Circulation and Community Mobility Element contains objectives and policies focused on serving the transportation needs of the community and encouraging the effective use of alternative modes of transportation. The major principles underlying this element of the GP 2025 are focusing future development near existing transportation corridors; ensuring land uses are supported by an efficient local roadway network; embracing innovative solutions to congestion on freeways and regional arterials; supporting alternative modes of transportation such as walking, biking, and transit; and ensuring that transportation options are maximized for all community members as necessary components of an effective and safe circulation system for the City.

Public Safety Element

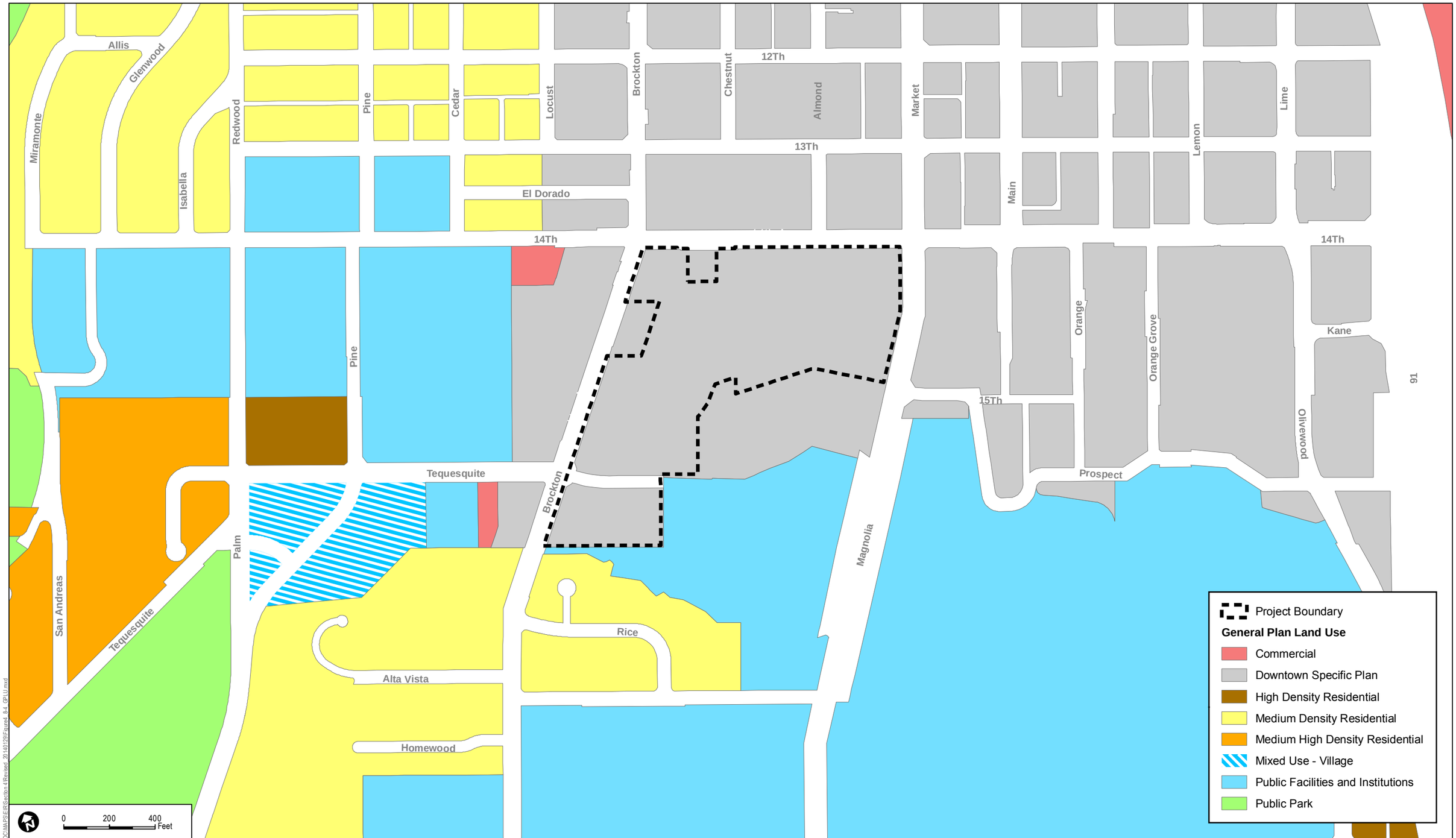
The Public Safety Element identifies public safety issues and needs anticipated to be of ongoing concern to the City during the planning period. This element describes the major hazards that might affect the City, as well as the resources available to respond when an accident or emergency occurs. The element sets forth objectives and policies to address all foreseeable public safety concerns. The overall purpose of this element is to ensure that the City takes all necessary proactive measures to reduce the risk of hazards and adequately, expediently, and efficiently respond to immediate safety threats.

Noise Element

The Noise Element examines noise sources in the City with a view toward identifying and appraising the potential for noise conflicts and problems and identifies ways to reduce existing and potential noise impacts. In particular, the Noise Element contains policies and programs to achieve and maintain noise levels compatible with various types of land uses. The element addresses noise that affects the community at large, rather than noise associated with site-specific conditions.

Air Quality Element

The Air Quality Element is a planning tool the City will use to protect the public's health and welfare. While the State of California does not require GPs to include Air Quality Elements, the City recognizes the importance of air quality not only to public health and safety, but also to the City's economic well-being and its image in the region.



DUDEK

7824-01

SOURCE: Kimley-Horn and Associates 5/20/2013, Perkins+Will 5/20/2013, Riverside General Plan 5/2013

FIGURE 4.8-4

Existing General Plan Land Use

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Historic Preservation Element

The purpose of the Historic Preservation Element is to provide guidance in developing and implementing activities that ensure that the identification, designation, and protection of cultural resources are part of the City's community planning, development, and permitting processes. This element also defines the City's role in encouraging private-sector activities that support historic preservation goals.

City of Riverside Downtown Specific Plan

As indicated above, the project site is located within the DSP–HC District designation. The intent of the Health Care District is to create a major medical center to serve the City by providing for the existing RCH and medical-related uses in this area of Downtown. Permitted uses within the Health Care District include but are not limited to medical and dental offices and laboratories, offices, and pharmacies. Permitted uses under a conditional use permit include but are not limited to hospitals, long-term care facilities, and parking structures. The site currently is developed with a hospital facility that is in compliance with the DSP–HC. RCH is proposing an SP (RCH SP) that would supersede the DSP–HC. The proposed SP will include guidelines for development and implementation of the project.

According to the City's Municipal Code Section 19.820.040, at a minimum, an SP must include a statement of its relationship to the City's GP (Section 65451(b)) and text and diagram(s) specifying all of the following in detail:

- The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.
- The proposed distribution, location, extent, and intensity of major components of public and private transportation, sewage, water, drainage, solid waste, disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
- Standards and criteria by which development will proceed and standards for the conservation, development, and utilization of natural resources, where applicable.
- A program of implementation measures, including regulations, programs, public works projects, and financing measures necessary to carry out the provisions of the preceding three paragraphs (Section 65451(a)).
- Any other subjects that, in the judgment of the planning agency, is necessary or desirable for the General Plan implementation (Section 65452) (Ord. 6966 Section 1, 2007).

The SP also complies with Chapter 19.820, Specific Plan/Specific Plan Amendments, of the City's Municipal Code; all other applicable ordinances of the City shall be adopted by resolution in accordance with the provisions of the City's Municipal Code.

Riverside Community Hospital Specific Plan

The RCH SP has been designed to provide a roadmap to guide future development over a 30-year period and it identifies design and development standards for the expansion of medical and medical support uses in a manner that is compatible with existing uses and future needs. The RCH SP includes both short- and long-range planning goals. The California Government Code (Section 65450–65457) and Chapter 19.820 of the City of Riverside Zoning Code permit the use of SPs to regulate site development, including permitted uses, density, building size, and building placement. SPs also govern the type and extent of open space, landscaping, roadway configuration, and the provision of infrastructure and utilities.

The RCH SP consists of the following chapters:

Chapter 1.0: Introduction. This provides the general overview and intent of the SP, and includes a project summary as well as the SP goals, requirements, and provisions.

Chapter 2.0: Existing Conditions. This chapter defines existing facilities and surrounding uses, the location of the RCH SP area, the existing GP 2025 land use designations and zoning, and the existing regional and local circulation network.

Chapter 3.0: Vision, Goals, and Policies. This chapter defines the overall vision of the SP and provides the framework for realizing the overall vision of the SP through goals and policies.

Chapter 4.0: Land Use. The Land Use chapter lays out the phased development plan for the project and discusses details of the land use program, including the GP 2025 amendment and rezone. This chapter also establishes the RCH SP as a GP 2025 land use designation and zoning district.

Chapter 5.0: Circulation. This chapter discusses the regional and local circulation, as well as parking improvements to accommodate proposed land uses.

Chapter 6.0: Public Utilities and Services. This chapter identifies the water, sewer, and storm drain services for the RCH SP area, as well as public services and dry utility providers.

Chapter 7.0: Development Standards. The Development Standards chapter provides the development standards of the RCH SP zoning district, such as height, setbacks, and floor area ratio in order to establish the relationship between building mass and scale.

Chapter 8.0: Design Guidelines. This chapter provides direction for the design and appearance of buildings by incorporating examples and references for architectural theme, landscape plant palette, lighting, signage, and façade elements.

Chapter 9.0: Implementation. This chapter identifies administrative review, approval, and amendment procedures. The chapter identifies who may review future development projects that come forward under the RCH SP and what steps project proponents will need to complete.

Appendix. The Appendix includes an analysis of how the RCH SP is in conformance with relevant goals and policies of the City of Riverside GP 2025. The Appendix also includes the ordinances and resolutions adopting the SP as well as the Mitigation Monitoring and Reporting Plan.

4.8.2 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS prepared for the project and Appendix G, a development project could have a significant impact on land use if the project would:

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

4.8.3 Project Elements That Can Reduce Impacts

An SP is being prepared for the project to provide a roadmap to guide future development over a 30-year period and identify design and development standards for the expansion of medical and medical support uses in a manner that is compatible with existing uses and future needs. Implementation of the RCH SP would streamline the entitlement process and provide a comprehensive set of guidelines that would ensure the quality and compatibility of future development on the hospital campus.

4.8.4 Environmental Impacts Before Mitigation

Threshold: Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Project- and Program-Level Elements

The project site is located in the DSP–HC District. RCH is proposing to expand the existing hospital campus primarily to build new facilities to alleviate noncompliant seismic concerns associated with existing hospital buildings and meet seismic retrofit requirements as required by SB 1953. The RCH is proposing to implement a new SP (RCH SP) for the RCH campus. The RCH SP will be divided into Phases: Phases I, IIa, IIb, and IIc. The RCH SP will provide a roadmap to guide future development over a 30-year period by identifying development standards and design guidelines for the expansion of medical and medical support uses in a manner that is compatible with existing uses and future needs.

Under state law, SPs provide detailed land use and infrastructure plans and policies for a certain geographic area, and must be consistent with a community's GP. In order to be consistent with the City's GP 2025, the project includes a GP amendment to designate the RCH SP area as RCH SP and replace the current DSP land use designation (see Figure 4.8-4, Existing General Plan Land Use). The project also includes a rezone to designate the RCH SP area as RCH SP and replace the current DSP–HC District on the City's Zoning Map (see Figure 4.8-5, Existing Zoning). Adoption of the proposed RCH SP land use designation and zoning amendments would allow for implementation of the RCH SP and associated development standards, which are necessary to meet the increasing demand for hospital-related services and amenities.

The following tables represent the project's consistency with relevant planning documents. Table 4.8-4 demonstrates the project's consistency with the City's GP 2025. Table 4.8-5 demonstrates the project's consistency with the DSP.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Land Use and Urban Design Element			
Objective LU-8	Emphasize smart growth principles through all steps of the land development process.	The project is an infill development that uses Smart Growth principles. The project would implement the following transportation demand management (TDM) measures: • Preferential parking for carpool vehicles • Bicycle parking • Local transportation management and roadway improvements	The project would be consistent with this objective.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		• Contributions to funds for regional facilities such as park-and-ride lots, multi-modal transportation centers, satellite work centers, etc. • On-site amenities such as cafeterias, restaurants, automated teller machines and other services that would eliminate the need for additional trips (City of Riverside 2007b, Chapter 19.880). The site is designed to encourage pedestrian activity to and from the campus, as well as internally between campus buildings. RCH will continue to implement two ride-sharing rewards programs in coordination with IE511 (Inland Empire Commuter Services) (see RCH SP, Chapter 5.0, for further details).	
Policy LU-8.1	Ensure well-planned infill development Citywide, allow for increased density in selected areas along established transportation corridors.	The project is an infill development located along established transportation corridors; see response to Objective LU-8 for further details.	The project would be consistent with this policy.
Policy LU-8.4	Ensure that in-fill development and development along Magnolia and University Avenues, incorporates the latest Smart Growth principles.	The project is an infill development, which implements Smart Growth principles; see Response to Objective LU-8 for further details.	The project would be consistent with this policy.
Objective LU-9	Provide for continuing growth within the General Plan Area, with land uses and intensities appropriately designated to meet the needs of anticipated growth and to achieve the community's objectives.	The project would allow for implementation of the RCH SP, which provides a roadmap to guide future development over a 30-year period and identifies design and development standards for the expansion of medical and medical support uses in a manner that is compatible with existing uses and future needs.	The project would be consistent with this objective.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Policy LU-9.2	Evaluate proposed amendments to the Land Use Policy Map to consider the effect such amendments will have on the City's ability to achieve its objectives.	The project proposes a GP amendment and rezone to designate the site as "RCH SP." This table evaluates the project's consistency with the City's pertinent goals and objectives.	The project would be consistent with this policy.
Policy LU-9.4	Promote future patterns of urban development and land use that reduce infrastructure construction costs and make better use of existing and planned public facilities when considering amendments to the Land Use Policy Map.	The project proposes a GP amendment and rezone to designate the site as "RCH SP." The project is an infill development that would increase intensity on-site and allow for better use of the existing infrastructure that is currently in place.	The project would be consistent with this policy.
Policy LU-9.7	Protect residentially designated areas from encroachment by incompatible uses and from the effects of incompatible uses in adjacent areas. Uses adjacent to planned residential areas should be compatible with the planned residential uses and should employ appropriate site design, landscaping and building design to buffer the non-residential uses.	The project site is surrounded by residential uses to the northwest. The RCH SP includes a number of development standards and design guidelines to ensure adequate screening of parking areas and architectural design that is compatible with the existing and surrounding uses.	The project would be consistent with this policy.
Objective LU-10	Provide for appropriate timing of development in accordance with the future land uses designated in this Land Use Element.	The project would allow for implementation of the RCH SP, which provides a roadmap to guide future development over a 30-year period and identifies design and development standards for the expansion of medical and medical support uses in a manner that is compatible with existing uses and future needs.	The project would be consistent with this objective.
Policy LU-10.4	Require development projects to be timed and phased so that projects are not occupied prior to the provision of necessary urban services.	The project would allow for implementation of the RCH SP, which guides future development of the site in a manner that is compatible with existing uses and future needs, and phased in accordance with available public facilities and utilities.	The project would be consistent with this policy.
Objective LU-12	Restore the Magnolia/Market Corridor to its historical role as a scenic "showcase roadway" that spans the City of Riverside while updating its function as a key transit	The project would allow for implementation of the RCH SP, which includes design considerations and limitations that	The project would be consistent with

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
	corridor to support future growth.	help to preserve the historical significance of the area. The J. Harrison Wright Palm Grove associated with the Building A site and the Newman park palm grove will be preserved as it qualifies for City of Riverside Cultural Heritage Landmark status as a cultural landscape.	this objective.
Policy LU-12.1	Through the Specific Plan process further implement the earlier Polizoides Plan for the corridor, identify appropriate land uses, development opportunities and streetscape improvements along the Corridor that supports the vision as a scenic roadway with distinct districts. Reinforce the desired land uses within the context of each district through development provisions and regulations.	The project would allow for implementation of the RCH SP, which includes design considerations and limitations that help to preserve the historical significance of the area. The J. Harrison Wright Palm Grove associated with the Building A site and the Newman Park palm grove will be preserved, as it qualifies for City of Riverside Cultural Heritage Landmark status as a cultural landscape. Required landscape setback requirements will also be implemented at the Building A site.	The project would be consistent with this policy.
Policy LU-12.2	Maintain the existing mature heritage landscaping and infill landscaping as appropriate to return the Corridor to being a grand tree-lined parkway.	The project will preserve and protect the two palm groves on the corner of 14th Street and Magnolia Avenue / Market Street.	The project would be consistent with this policy.
Objective LU-28	Preserve and enhance the quality and character of Riverside by ensuring compliance with all relevant codes and regulations.	The project would allow for implementation of the RCH SP, which contains development standards including, but not limited to, height, FAR, setbacks that have been established through consideration of the quality and character of on-site and surrounding land uses.	The project would be consistent with this objective.
Policy LU-28.3	Encourage the rehabilitation or replacement of dilapidated housing units and buildings, discouraging further deterioration. Where necessary, seek to remove unsafe structures.	While the site does not contain buildings that are dilapidated or deteriorated, the primary focus of Phase I is to construct a new hospital bed tower to alleviate seismic concerns associated with existing buildings and to meet seismic retrofit	The project would be consistent with this policy.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		requirements as required by Senate Bill (SB) 1953. Phase II also addresses seismic concerns.	
Objective LU-30	Establish Riverside's neighborhoods as the fundamental building blocks of the overall community, utilizing Neighborhood and Specific Plans to provide a more detailed design and policy direction for development projects located in particular neighborhoods.	The project would allow for implementation of the RCH SP, which includes detailed design and policy direction, such as specific development standards and design guidelines.	The project would be consistent with this objective.
Policy LU-30.3	Ensure that the distinct character of each of Riverside's neighborhoods is respected and reflected in all new development, especially infill development.	The site has been a hospital use since 1925. The project proposes an infill development that is carefully planned to preserve the nature of the site and surrounding uses. The project would allow for implementation of the RCH SP, which includes hospital uses and associated amenities.	The project would be consistent with this policy.
Policy LU-30.8	Develop/amend Neighborhood Plans with the participation of residents and property owners of the affected area and with the involvement of other community organizations or interest groups the City finds to be affected by the Neighborhood Plan.	The project would allow for implementation of the RCH SP. The applicant has worked with the surrounding community members during preparation of the RCH SP. The applicant met with several surrounding community member to obtain comments and input, and also held a public community outreach meeting on September 9, 2013.	The project would be consistent with this policy.
Policy LU-30.9	Interpret, apply or impose the development restrictions, conditions, and/or standards of an approved Specific Plan in addition to those found in this General Plan.	The project would implement the RCH SP, which includes a set of development standards. The project would also be consistent with regulations and policies of the City's GP 2025, as demonstrated in this table.	The project would be consistent with this policy.
Objective LU-47	Make Downtown Riverside a regional employment, governmental, arts and entertainment center with unique and interrelated districts offering a wide range of opportunities for residential lifestyles, work environments, shopping, entertainment, learning, culture and the arts.	The site is located in the Downtown Specific Plan–Health Care (DSP–HC) District on the southerly edge of Downtown Riverside. The project would be consistent with the use as designated in the Riverside Downtown Specific Plan (DSP). The project would expand on the existing hospital use in a manner	The project would be consistent with this objective.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		that is concurrent with need and would continue to provide a vital service to the area.	
Policy LU-47.1	Recognize and build upon the unique characteristics and interrelationships of Downtown's districts, as identified in the Downtown Specific Plan.	The site is located in the DSP–HC District on the southerly edge of Downtown Riverside. The project would allow for implementation of the RCH SP, which includes development standards and design guidelines that are compatible with the unique characteristics of the Health Care District and surrounding area.	The project would be consistent with this policy.
Objective LU-48	Strengthen the identity and character of Downtown using the existing historic and architectural urban character of the community, while allowing for new structures that are architecturally compatible with and complementary to the existing architectural and historic fabric.	The site is located in the DSP–HC District on the southerly edge of Downtown Riverside. The project would allow for implementation of the RCH SP, which includes design guidelines that complement the existing architecture in the surrounding area. For example, the site currently has a number of different buildings with varying styles which were constructed throughout the twentieth century, such as contemporary wings dating to the 1960s, a Spanish-style hospital wing, a contemporary building called Raincross Medical Office Building, and a variety of low-rise medical office buildings and hospital-related facilities.	The project would be consistent with this objective.
Circulation and Community Mobility Element			
Objective CCM-2	Build and maintain a transportation system that combines a mix of transportation modes and transportation system management techniques, and that is designed to meet the needs of Riverside's residents and businesses, while minimizing the transportation system's impacts on air quality, the environment and adjacent development.	Transportation Demand Management (TDM) is a strategy design to reduce single occupancy vehicle trips during peak hours. TDM seeks to shift commuters to transportation modes other than cars, and encourage ride-sharing and carpooling programs. The RCH SP incorporates many TDM features.	The project would be consistent with this objective.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Policy CCM-2.3	Maintain LOS D or better on Arterial Streets wherever possible. At key locations, such as City Arterials that are used by regional freeway bypass traffic and at heavily traveled freeway interchanges, allow LOS E at peak hours as the acceptable standard on a case-by-case basis.	The site is bordered by Magnolia Avenue to the east, Brockton Avenue to the west, 14th Street to the north, and Tequesquite Avenue to the south. All of these are arterial roads. The project would cause some of these roads to operate at level of service (LOS D) or worse, as described in the traffic impact analysis for the project. The following mitigation is proposed to minimize impacts with regards to LOS in the listed arterial streets surrounding the site: • MM TRA-3, Brockton Avenue and RCH Entrance: Prior to the completion of Phase I, the driveway at the Riverside Community Hospital (RCH) entrance off Brockton Avenue shall be modified to prohibit westbound (outbound) left-turn movements to reduce delay. As a condition of approval, southbound left turns into the driveway at the RCH entrance off Brockton Avenue shall be restricted. This measure will also address LOS during Phase II. • MM TRA-5, 14th Street and Magnolia Avenue / Market Street: prior to issuance of certificate of occupancy for Phase IIa, a second westbound left-turn lane shall be provided at the intersection of 14th Street and Magnolia Avenue / Market Street, as well as signal operation modification to provide right-turn overlap for the northbound approach. Additional right-of-way shall	The project would be consistent with this policy.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		be dedicated on 14th Street at Market Street to accommodate the proposed turn lanes. If acquisition of off-site right-of-way is necessary, the applicant shall make a good faith effort to acquire the right-of-way needed to accomplish the improvement. • MM TRA-6, 14th Street and Lime Street: Prior to issuance of a certificate of occupancy for Phase IIa, the northbound through/right-turn lane at the intersection of 14th Street and Lime Street shall be converted into an exclusive right-turn lane to accommodate heavy right-turn movement toward the freeway. Signal operation shall be modified to provide right-turn overlap for the northbound approach. • MM TRA-7, Brockton Avenue roadway segment from Tequesquite to Ramona: During Phase I, modification of the traffic signal at the intersection of Brockton Avenue and Tequesquite Avenue shall provide protected/permissive left-turn phasing in all directions. • MM TRA-8, Brockton Avenue roadway segment from 14t Street to Tequesquite: During Phase I, Brockton Avenue south of 14th Street shall be restriped to provide a northbound right-turn lane and the traffic signal at the intersection of Brockton Avenue and 14th Street shall be modified to	

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		provide right-turn overlap for the northbound approach.	
Policy CCM-2.8	Design street improvements considering the effect on aesthetic character and livability of residential neighborhoods, along with traffic engineering criteria.	The project does not include street improvements. However, mitigation measures do propose street improvements, including mitigation measures listed in Policy CCM-2.3 and the following: • MM TRA-1, Brockton Avenue and 14th Street: Prior to the completion of Phase I, RCH shall convert the number one westbound through lane to a second left-turn lane. • MM TRA-2, 14th Street and Magnolia Avenue / Market Street: Prior to the completion of Phase I, RCH shall modify the signal operation at 14th Street and Magnolia Avenue / Market Street to provide right-turn overlap for the northbound approach. • MM TRA-4, Brockton Avenue and 14th Street: Prior to issuance of certificate of occupancy for Phase IIa, the intersection of Brockton Avenue and 14th Street shall be modified by converting one westbound through lane to a second left-turn lane. These street improvements are proposed as mitigation and would be constructed in accordance with City criteria and standards.	The project would be consistent with this policy.
Objective CCM-3	Design the Magnolia Avenue / Market Street Corridor as a transit- and pedestrian-oriented Mixed Use boulevard.	The project would help the City implement this objective by improving intersection and roadway level of service. Separation of pedestrians from vehicular and bicycle traffic will	The project would be consistent with this objective.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		be accomplished through several elements on site, such as the installation of sidewalks, separation of pedestrian and bike paths, and incorporation of pedestrian walking paths within landscape buffers.	
Policy CCM-3.4	Seek opportunities to enhance mobility on parallel and connecting Arterial and Collector Streets in the Magnolia/Market corridor to relieve congestion and to allow for implementation of the mixed-use corridor plan. These could include changes to traffic control (stop signs and traffic signals), elimination of cross-gutters, parking removal, driveway consolidation or limited roadway widening where feasible.	Brockton Avenue and 14th Street border the RCH campus and connect to and are parallel to the Magnolia/Market corridor. Mitigation Measures MM TRA-1 through MM TRA-8, as described in Policy CCM-2.3 and CCM 2.8, describe these measures in detail and are aimed at relieving traffic congestion.	The project would be consistent with this policy.
Objective CCM-9	Promote and support an efficient public multi-modal transportation network that connects activity centers in Riverside to each other and to the region.	Several bus routes run along Magnolia Avenue. A bus stop is located on the corner of 14th Street and Magnolia Avenue, in close proximity to Building A. These stops along the RCH campus allow connection to other activity centers in Riverside.	The project would be consistent with this objective.
Policy CCM-9.1	Encourage increased use of public transportation and multi-modal transportation as means of reducing roadway congestion, air pollution and non-point source water pollution, through such techniques as directing new growth along transportation corridors.	See responses to Objective LU-8 and Objective CCM-9.	The project would be consistent with this policy.
Objective CCM-10	Provide an extensive and regionally linked public bicycle, pedestrian and equestrian trails system.	The project site is currently accessible for bicycles and pedestrians. Specifically, sidewalks and bike lanes are currently provided along Magnolia Avenue, 14th Street, and Brockton Avenue. As outlined in Chapter 5.0, Circulation, of the RCH SP, the project would be designed to encourage pedestrian activity to and from the campus, as well as internally between campus	The project would be consistent with this objective.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		buildings. Internal sidewalks would be maintained and/or constructed as needed to provide pedestrian access in and around the campus. Separation of pedestrians from vehicular and bicycle traffic would be accomplished through several elements on site, such as the installation of sidewalks and incorporation of pedestrian walking paths within landscape buffers.	
Policy CCM-10.2	Incorporate bicycle and pedestrian trails and bicycle racks in future development projects.	The project will add bike racks to all future improvements made as part of all phases of the RCH SP.	The project would be consistent with this policy.
Policy CCM-10.6	Encourage pedestrian travel through the creation of sidewalks and street crossings.	The project includes pedestrian walk paths; see Figure 5-2, Pedestrian Pathway Plan, in the SP. The campus will be designed to accommodate pedestrian activity across the campus and between buildings.	The project would be consistent with this policy.
Public Safety Element			
Objective PS-1	Minimize the potential damage to existing and new structures and loss of life that may result from geologic and seismic hazards.	The project would build new facilities to alleviate noncompliant seismic concerns associated with existing hospital buildings and meet seismic retrofit requirements as required by SB 1953. Additionally, a Geotechnical Report prepared for the project indicated that active or potentially active faults with the potential for surface fault rupture are not known to cross or project toward the site and the potential for surface fault rupture at the site is low.	The project would be consistent with this objective.
Policy PS-1.1	Ensure that all new development in the City abides by the most recently adopted City and State seismic and geotechnical requirements.	See response to Objective PS-1.	The project would be consistent with this policy.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Objective PS-3	Minimize risks associated with the storage, transport and disposal of hazardous materials.	The project would update its Hazardous Materials and Waste Management Plan prior to certificate of occupancy for Phases I, IIa, IIb, and IIc. All chemicals shall be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR, Division 4.5). Also, in accordance with 40 CFR, Part 112, prior to certificate of occupancy issuance for all phases, RCH will update its Spill Prevention Control and Countermeasures plan.	The project would be consistent with this objective.
Policy PS-3.1	Ensure that hazardous materials used in business and industry are handled properly.	See response to Objective PS-3.	The project would be consistent with this policy.
Policy PS-3.5	Encourage sewer service to minimize groundwater contamination.	The project would utilize the existing sewer connections for the site.	The project would be consistent with this policy.
Objective PS-5	Provide safe pedestrian and bicyclist environments Citywide.	The project would ensure safety through the separation of pedestrian routes from vehicular and bicycle traffic through the installation of sidewalks and walking paths within the RCH campus.	The project would be consistent with this objective.
Policy PS-5.4	Require that new development provide adequate safety lighting in pedestrian areas and parking lots.	The project would allow for implementation of the RCH SP, which includes development standards and design guidelines relative to safety and lighting. A lighting plan for Phase I of the project is included in the RCH SP that would ensure adequate safety for the pedestrian pathways located on site. Phase IIa, Phase IIb, and Phase IIc shall develop a similar, consistent plan. See Chapter 8.0 of the RCH SP.	The project would be consistent with this policy.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Noise Element			
Objective N-1	Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.	A noise impact analysis was prepared for the project and addressed existing and potential future noise levels generated by the project. It was determined that short-term construction noise impacts will exceed City noise standards at a few sensitive receptor locations during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project. Implementation of Mitigation Measure MM NOISE-1 would help minimize construction noise from the project.	The project would be consistent with this objective.
Policy N-1.2	Require the inclusion of noise-reducing design features in development consistent with standards in Figure N–10 (Noise/Land Use Compatibility Criteria), Title 24 California Code of Regulations and Title 7 of the Municipal Code.	The project would comply with the City of Riverside's Municipal Code, Section 7.35, for construction activities. RCH has prepared a traffic control plan that includes provisions for coordinating with local school hours and emergency service providers regarding construction times to minimize noise from construction. The proposed SP design guidelines direct emergency vehicle access away from residential land uses to also limit noise impacts. Implementation of Mitigation Measure MM NOISE-1 would help reduce construction noise.	The proposed project would be consistent with this policy.
Policy N-1.3	Enforce the City of Riverside Noise Control Code to ensure that stationary noise and noise emanating from construction activities, private developments/residences and special events are minimized.	Short-term construction noise impacts will exceed City noise standards at a few sensitive receptor locations during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project. Implementation of Mitigation Measure MM NOISE-1 would help reduce construction noise.	The project would be consistent with this policy.
Objective N-4	Minimize ground transportation-related noise impacts.	A noise impact analysis was prepared for the project and addressed transportation-related	The project would be consistent with

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		noise generated by the project. As shown in Table 4.9-10 of Section 4.9 of this EIR, the roadway noise from ground transportation along surrounding roads will not be significantly increased with the buildout of the SP.	this objective.
Policy N-4.1	Ensure that noise impacts generated by vehicular sources are minimized through the use of noise reduction features (e.g., earthen berms, landscaped walls, lowered streets, improved technology).	A noise impact analysis was prepared for the project and it was determined that the additional project traffic volume along the adjacent roads in Year 2035 would not substantially increase the existing noise level in the project vicinity. However, surface parking or parking structures may be proposed during Phase IIa, IIb, or IIc of the project. Site-specific proposed parking areas are not available at this time. In the event that future surface parking or parking structures are proposed, a noise study shall be conducted, as proposed in Mitigation Measure MM NOISE-2, to determine the maximum noise level to sensitive receptors from a door slam, engine startup, or a car passing by.	The project would be consistent with this policy.
Air Quality Element			
Objective AQ-1	Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic.	The project would help the City achieve this objective through implementation of TDM measures that would reduce vehicle miles traveled. See response to Objective LU-8 for a list of TDM measures.	The project would be consistent with this objective.
Policy AQ-1.3	Separate, buffer and protect sensitive receptors from significant sources of pollution to the greatest extent possible.	A Localized Significance Threshold (LST) analysis has been prepared to determine potential impacts to nearby sensitive receptors during construction. The closest off-site sensitive receptors to the project site include several residential areas, one elementary school, and three childcare centers or preschools. The LST analysis for	The project would be consistent with this policy.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		construction impacts found that local ambient air quality impacts would exceed the LSTs for NO_2, PM_{10}, and $PM_{2.5}$ at sensitive receptors at the hospital and off site, resulting in a significant air quality impact. As described in Pollutants and Effects in Section 4.2.1, of this EIR, NO_2 health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. Residential receptors are not anticipated to be exposed to levels of NO_2, PM_{10}, and $PM_{2.5}$ exceeding the LSTs during any construction phase. Mitigation Measure MM AQ-3 proposes dust control measures with the goal of retaining dust on site. Additional measures are proposed to reduce emissions of oxides of nitrogen from construction equipment. Mitigation Measure MM AQ-3 (see Section 4.2.5) would reduce these NO_2, PM_{10}, and $PM_{2.5}$ ambient air quality impacts to the extent feasible.	
Policy AQ-1.20	Create the maximum possible opportunities for bicycles as an alternative work transportation mode.	The project would help the City achieve this objective by providing an infill development project on a site that is currently surrounded by Class II bike lanes. In addition, bicycle parking would be provided on the RCH campus.	The project would be consistent with this policy.
Objective AQ-2	Reduce air pollution by reducing emissions from mobile sources.	The project would implement several TDM measures, which would reduce vehicle miles traveled. See response to Objective LU-8 for a list of TDM measures.	The project would be consistent with this objective.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Policy AQ-2.2	Support programs and educate employers about employee rideshare and transit incentives for employers with more than 250 employees at a single location. The City will provide incentives and programs to encourage alternative methods of transit.	Upon development of the project, RCH will continue to implement two ride-sharing rewards programs in coordination with Inland Empire (see RCH SP, Chapter 5.0, for further details).	The project would be consistent with this policy.
Policy AQ-2.7	Use incentives, regulations and Transportation Demand Management in cooperation with surrounding jurisdictions to eliminate vehicle trips that would otherwise be made.	See responses to Objective LU-8 and Policy AQ-2.2.	The project would be consistent with this policy.
Objective AQ-3	Prevent and reduce pollution from stationary sources, including point sources (such as power plants and refinery boilers) and area sources (including small emission sources such as residential water heaters and architectural coatings).	The project would result in pollution from point sources, such as steam boilers and emergency standby diesel generators, and area sources due to space heating, water heating, and landscaping. An air quality technical report and greenhouse gas (GHG) analysis was prepared for this project, and it was determined that operational emissions from area and point sources during Phase I, Phase IIa, and Phase IIb would be less than significant. However, given that the future conditions related to Phase IIc cannot be analyzed now and would require specific air quality analysis at the time specific projects are proposed, Mitigation Measure MM AQ-2 (see Section 4.2.5) shall be incorporated to address this impact and help the project meet this objective to reduce pollution from point and area sources.	The project would be consistent with this objective.
Policy AQ-3.4	Require projects to mitigate, to the extent feasible, anticipated emissions which exceed AQMP Guidelines.	According to the Air Quality Technical Report and Greenhouse Gas Analysis prepared for this project, project-generated construction impacts are anticipated to exceed South Coast Air Quality Management District (SCAQMD) maximum	The project would be consistent with this policy.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		daily thresholds for NO_x and LSTs for NO_2, PM_{10}, and $PM_{2.5}$. The net change in operational emissions was found to be less than significant for Phases I, IIa, and IIb. However, since Phase IIc is so far in the future, exact and specific characteristics of that phase are too speculative to analyze at this time. The project has not yet been defined for Phase IIc; therefore, construction and operational emissions for Phase IIc must be reviewed and assessed in a subsequent analysis. The project would include the following project design features/mitigation measures to reduce pollution: • MM AQ-1 proposes measures that shall be adhered to during project grading and construction to reduce oxides of nitrogen (NO_x) from construction equipment for all phases of the project. • MM AQ-2 proposes that during the environmental review process for future discretionary permits for Phase IIc of the project, an air quality technical report that includes project construction phasing, timing and operational details shall be analyzed using the current air quality model available from the SCAQMD. • MM AQ-3 proposes dust control measures with the goal of retaining dust on site. Additional measures are proposed to reduce emissions of oxides of nitrogen from construction equipment.	

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		Project-generated construction impacts associated with exceedance of SCAQMD maximum daily thresholds for NO_x and exceedance of LSTs for NO_2, PM_{10}, and $PM_{2.5}$ would remain significant even with incorporation of MM AQ-1 and MM AQ-3, respectively. Because it is not certain that implementation of MM AQ-2 would result in less than significant impacts, operational impacts to air quality from Phase IIc of the project would be potentially significant and unavoidable. However, the project has provided mitigation to the extent feasible to meet this policy.	
Policy AQ-3.7	Require use of pollution control measures for stationary and area sources through the use of best available control activities, fuel/material substitution, cleaner fuel alternatives, product reformulation, change in work practices and of control measures identified in the latest AQMP.	See response to Objective AQ-3	The project would be consistent with this policy.
Objective AQ-4	Reduce particulate matter, as defined by the Environmental Protection Agency (EPA), as either airborne photochemical precipitates or windborne dust.	As described in Policy AQ-3.4, Mitigation Measures MM AQ-2 and MM AQ-3 are proposed in order to reduce emissions of particulate matter and meet this objective; however; impacts would remain significant even with the incorporation of the proposed mitigation measures.	The project would be consistent with this objective.
Policy AQ-4.2	Reduce particulate matter from agriculture (e.g., require use of clean non-diesel equipment and particulate traps), construction, demolition, debris hauling, street cleaning, utility maintenance, railroad rights-of-way and off-road vehicles to the extent possible, as provided in SCAQMD Rule 403.	See response to Objective AQ-4; the project includes mitigation to reduce impacts from particulate matter.	The project would be consistent with this policy.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Objective AQ-5	Increase energy efficiency and conservation in an effort to reduce air pollution.	Several project design features are proposed as a means to reduce impacts related to GHG emissions. These include the following: • The installation of a cool roof membrane, insulation, and solar reflective roofing • Exterior wall sheathing and insulation with a total system minimum of R-19 • Reflective glazing to be added to windows • Interior lighting systems with dimming and multilevel switching, occupancy sensors, and light sensors • Photocell daylighting controls for daylit spaces • Exterior lighting systems that include the installation of 55 W compact fluorescent lamps, 39 W LED lamp pole lights, and 39 W compact fluorescent bollard lights.	The project would be consistent with this objective.
Policy AQ-5.1	Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.	During both construction and operation of all phases of the new hospital facilities (Phases I, IIa, IIb, and IIc), the project would comply with all state and local statutes or regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act as amended and the City of Riverside Municipal Code, Title 6, Health and Sanitation. There are no federal regulations or statutes related to solid waste that apply to the project. As noted above, during construction all wastes will be recycled to the maximum extent possible and per Mitigation Measure MM UTL-1, the project shall prepare a	The project would be consistent with this policy.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		recycling plan addressing how its construction waste will be recycled. All non-hazardous solid waste generated from the project site once the project is operational (such as plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard) would be recycled, with a goal of 75%, in compliance with the Integrated Waste Management Act. Incorporation of MM UTL-2 requires that the City approve recycling plans on the building plans for the project, ensuring that proper space for recycling efforts has been allowed on the site.	
Policy AQ-5.6	Support the use of automated equipment for conditioned facilities to control heating and air conditioning.	The RCH expansion will be provided with a new web-based direct digital control (DDC) system that will be integrated with the existing HVAC control system. The new system shall be capable of monitoring, trending, and controlling all systems.	The project would be consistent with this policy.
Historic Preservation Element			
Objective HP-5	To ensure compatibility between new development and existing cultural resources.	The project would establish a landscape setback that preserves, to the largest extent possible, the trees in the J. Harrison Wright Palm Grove. To avoid potential direct impacts to Building B during Phase I of the project, the architectural integrity of the building shall be maintained by preserving its character-defining features and if that is not feasible, other measures outlined in Mitigation Measure MM AES-2 in Section 4.1 of this EIR shall be implemented. In order to avoid potential indirect impact to the Riverside	The project would be consistent with this objective.

Table 4.8-4
Project's Consistency with City of Riverside General Plan 2025

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
		Community Players Theatre, improved parking, accessibility, and landscaping shall be incorporated as outlined in Mitigation Measure MM CUL 2 in Section 4.4 of this EIR. In order to avoid indirect impacts to Calvary Presbyterian Church during Phases IIb and IIc of the project, Mitigation Measure MM AES-1 in Section 4.1 of this EIR shall be implemented.	
Policy HP-5.1	The City shall use its design and plot plan review processes to encourage new construction to be compatible in scale and character with cultural resources and historic districts.	The project would allow for implementation of the RCH SP, which includes design guidelines that consider the existing cultural character of the Healthcare District in Downtown Riverside.	The project would be consistent with this policy.

To ensure consistency between the RCH SP and the City's GP 2025, the GP 2025 will be amended concurrently with the adoption of this RCH SP to incorporate and recognize that the RCH SP land use designation replaces the DSP designation for that area. The existing GP 2025 land use designations are shown on Figure 4.8-4. The project is consistent with GP 2025 Goal LU-30 and associated policies that provide for the use of "Area Plans, Community Plans, or Specific Plans" as part of the GP 2025 to address detailed design, land use, and policy direction for a particular area within the City. Therefore, with implementation of the RCH SP and the amendment to the GP 2025, the project would be consistent and **less than significant** impacts would occur.

Table 4.8-5
Project's Consistency with City of Riverside Downtown Specific Plan

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Land Use Goals and Policies			
Goal LU-1	To provide land use opportunities for Downtown to serve as the region's cultural, governmental, arts, and entertainment center with unique and interrelated districts offering a wide range of opportunities for residential lifestyles, work environments, shopping, entertainment, learning, culture, and the arts.	The project would increase intensity of the existing hospital use, as allowed and encouraged in the Healthcare District of the Downtown Specific Plan (DSP).	The project would be consistent with this goal.

Table 4.8-5
Project's Consistency with City of Riverside Downtown Specific Plan

Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Policy LU-1.1	Maintain the integrity of, and interrelationship between, each Downtown district as follows: • Health Care District: An area primarily composed of medical related uses, with designs having a contemporary, institutional appearance.	The project would allow for implementation of the RCH SP, which includes the expansion of the existing hospital uses in the Health Care District.	The project would be consistent with this policy.
Urban Design Goals and Policies			
Goal UD-1	Strengthen the identity and character of Downtown using the existing historic and architectural urban character of the community, while allowing for new structures that are architecturally compatible with, and complementary to, the existing architectural and historic fabric.	The project would allow for the implementation of the RCH SP, which includes development standards and design guidelines that are sensitive to the existing architecture and historic fabric of the site and surrounding area (Chapters 7.0 and 8.0 of the RCH SP).	The project would be consistent with this goal.
Policy UD-1-1	Through Design Review, ensure that new development enhances the character of the Downtown Districts by requiring design qualities and elements that contribute to an active pedestrian environment, where appropriate, and ensuring that architectural elements are compatible and in scale with the existing historic structures in the Downtown.	See response to Goal UD-1.	The project would be consistent with this policy.
Historic Preservation Goals and Policies			
Goal HP-1	Strengthen and enhance the historic character of Downtown Riverside, which is unique to the Inland Empire, through the preservation and maintenance of Downtown's historically significant sites and structures.	See response to Goal UD-1.	The project would be consistent with this goal.
Policy HP-1-4	Through Design Review, encourage new development to be compatible with adjacent historical structures in scale, massing, building materials, and general architectural treatment.	See response to Goal UD-1.	The project would be consistent with this policy.
Circulation Goals and Policies			
Goal C-1	Improve the circulation system in Downtown by maintaining and improving the grid system, providing for convenient access to, and circulation within, Downtown for all modes of transportation, and enhancing walkability in Downtown.	The project would help the City achieve this goal by maintaining and improving the circulation within the site, as well as increasing intensity of uses that are in close proximity to transit and bike routes.	The project would be consistent with this goal.

Table 4.8-5
Project's Consistency with City of Riverside Downtown Specific Plan

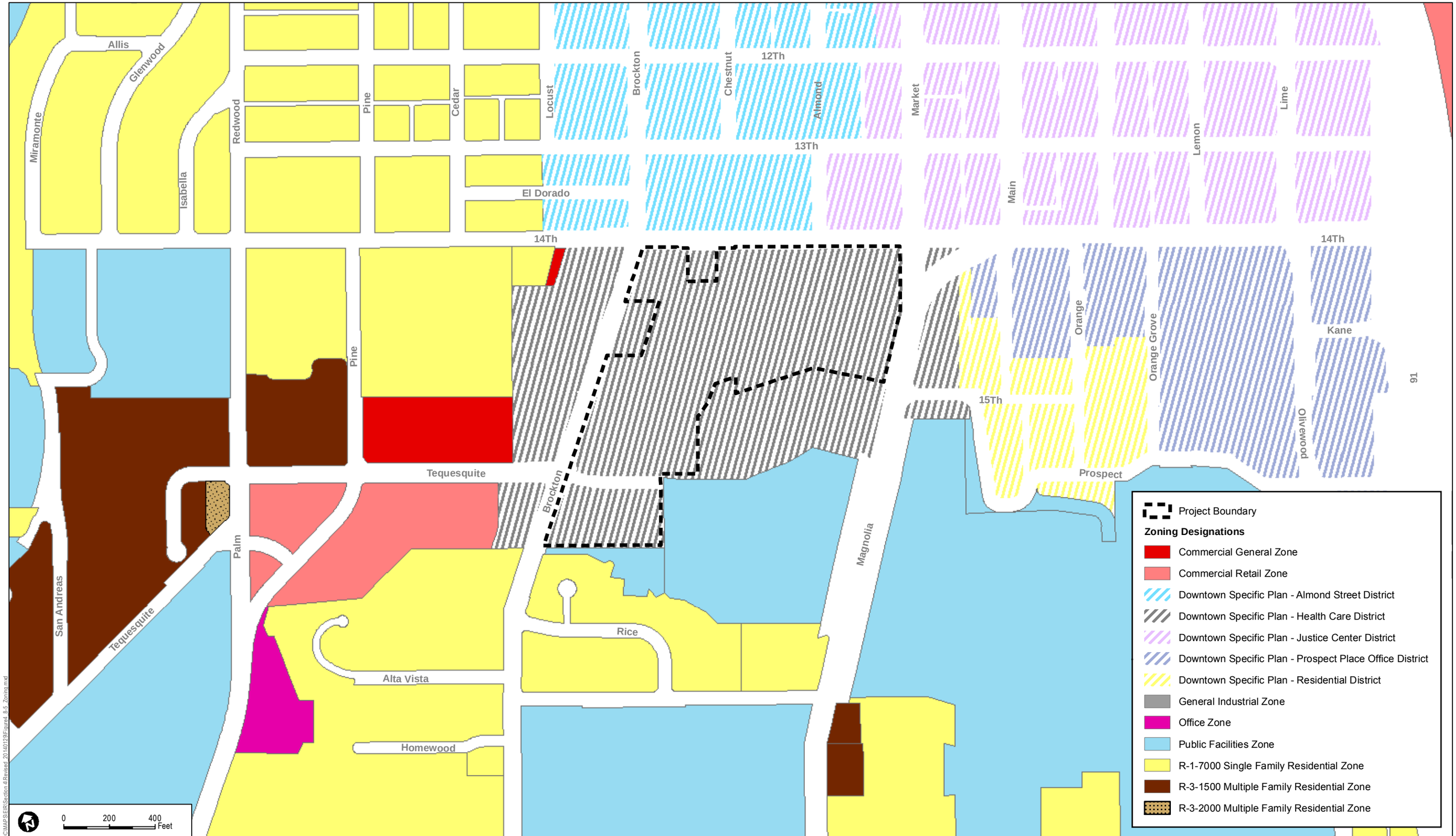
Goal/Recommendation Number	Goal/Recommendation	Project	Project Consistency/ Inconsistency
Parking Goals and Policies			
Goal P-1	Provide a sufficient overall supply of parking for Downtown land uses, while avoiding an oversupply of parking, and make better and more effective use of the existing parking supply resources.	Parking areas will be sited, as demand arises, in a manner compatible with surrounding development and should relate to the surrounding built environment. As parking demand rises and parking availability is diminished, proposer parking facilities will be planned to accommodate the growth.	The project would be consistent with this goal.

The RCH SP area is currently included in the DSP–HC District (Figure 4.8-5) and is subject to the provisions laid out in Chapter 10 of the DSP. The DSP–HC District contains policies intended to encourage the expansion of the existing hospital and medical-related uses and the establishment of new medical and medical support uses, and to create an attractive entry into Downtown from the south.

The RCH SP is intended to provide for expansion of medical and medical support uses in a manner that is compatible with the existing development in the surrounding area, especially in terms of scale and building mass. The RCH is mindful of the community in which it resides and will plan development accordingly. Future development and rehabilitation will maintain in form, function, and aesthetics, as defined in the DSP–HC District.

With adoption of the RCH SP, the portions of the DSP–HC District that encompass the hospital campus will be rescinded to accommodate the boundaries of the RCH SP. This is necessary to create two SP areas that can be effectively implemented and avoid conflict between the policies, standards, and regulations of both plans, while complementing each other. With the adoption of the proposed amendments, and implementation of the RCH SP, the project would not conflict with the DSP and impacts would be **less than significant**.

The RCH SP will provide a roadmap to guide future development over a 30-year period and identify design and development standards for the expansion of medical and medical support uses in a manner that is compatible with existing uses and future needs. The RCH SP includes both short- and long-range planning goals. The RCH SP would allow for hospital-related structures and components within the existing hospital campus, and would therefore be compatible with the existing on-site hospital and medical uses. While no expansion of the physical campus boundaries is proposed, more intense on-site uses would result.



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SOURCE: Kimley-Horn and Associates 5/20/2013, Perkins+Will 5/20/2013, Riverside Zoning 5/2013

FIGURE 4.8-5

Existing Zoning

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Municipal Code Consistency

To ensure consistency between the RCH SP and the City of Riverside Municipal Code, Title 19, Zoning Code, the Zoning Map will be amended concurrent with the adoption of RCH SP to include an RCH SP zone to replace the zoning for that area. The existing zoning designations are shown on Figure 4.8-5. The RCH SP also complies with Chapter 19.820, Specific Plan/Specific Plan Amendments, of the City of Riverside Zoning Code; all other applicable ordinances of the City of Riverside would be adopted by resolution in accordance with the provisions of the Municipal Code. Therefore, the project is consistent with the City of Riverside Municipal Code and impacts would be **less than significant**. Further, future development proposals that affect a designated cultural resource or an eligible cultural resource would be subject to review and approval of the City's Planning Division staff and/or the Cultural Heritage Board in accordance with Title 20 of the Riverside Municipal Code.

Where land use regulations and/or design standards of the City of Riverside Zoning Code are inconsistent with this RCH SP, the standards and regulations of the RCH SP shall prevail. Any issue not specifically covered in the RCH SP would be subject to the City of Riverside Zoning Code. Interpretations may be made by the Community Development Director or referred to the Planning Commission if not specifically covered in the City's existing regulations.

As demonstrated above, the project will be consistent with the applicable plans, policies, and regulations related to land use upon adoption of the proposed amendments to the GP 2025 and Zoning Map; therefore, impacts would be considered **less than significant**.

4.8.5 Mitigation Measures

The CEQA Guidelines (14 CCR 15126.4) require EIRs to describe feasible measures that can minimize significant adverse impacts. Impacts related to land use have been found to be less than significant; therefore, no mitigation measures are necessary.

4.8.6 Environmental Impacts After Mitigation Is Incorporated

With adoption of the proposed GP 2025 and Zoning Code amendments, implementation of the project would not conflict with an adopted plan, policy, or regulation established to avoid environmental effects. As described above, the project would not result in any significant land use impacts; therefore, no mitigation measures are required.

4.8.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

City of Riverside. 2002. *City of Riverside Downtown Specific Plan*.

City of Riverside. 2007. *City of Riverside General Plan 2025*. Adopted November 2007. Riverside, California: City of Riverside Community Development Department. Accessed January 5, 2011. http://www.riversideca.gov/planning/gp2025program/general-plan.asp.

City of Riverside. 2010. Riverside Municipal Code.

Dudek. n.d. *Riverside Community Hospital Specific Plan P13-0211*.

Kimley-Horn (Kimley-Horn and Associates Inc.). 2014. *Traffic Impact Analysis for the Riverside Community Hospital Expansion Project in the City of Riverside*. January 2014.

4.9 NOISE

This section presents a discussion of noise levels that would be affected by the Riverside Community Hospital (RCH) Specific Plan Expansion Project (project). The Initial Study/Notice of Preparation (IS/NOP) for the project (Appendix A) found the project to have no impacts related to being located within the vicinity of a private airstrip such that the project would expose people residing or working in the project area to excessive noise levels. This impact will not be addressed further in this Draft Environmental Impact Report (EIR).

As reported in the IS, the focus of this section will be on whether the project will expose persons to or generate noise levels in excess of standards established in the local General Plan or Noise Code, or applicable standards of other agencies; expose persons to or generate excessive ground-borne noise levels; create a permanent increase in ambient noise levels in the project vicinity above levels existing without the project; cause temporary or periodic increases in ambient noise levels in the project vicinity above levels existing without the project; or be located within an airport land use plan, or within 2 miles of a public airport or public use airport, such that the project would expose people residing or working in the project area to excessive noise levels.

In addition to other documents, the following references were used in the preparation of this section of the EIR.

- City of Riverside General Plan (GP) 2025 (City of Riverside 2007a)
- Final Program Environmental Impact Report for the City of Riverside General Plan 2025 (Final GP 2025 PEIR; City of Riverside 2007b)
- City of Riverside Municipal Code (Title 19) (City of Riverside 2007c)
- Noise Technical Report (Appendix G; Dudek 2013).

4.9.1 Setting

Existing Conditions

The City of Riverside (City) is subject to typical urban noises, such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. Noise around the project site is the cumulative effect of noise from transportation activities and stationary sources. “Transportation noise” typically refers to noise from automobile use, trucking, airport operations, and rail operations. “Non-transportation noise” typically refers to noise from stationary sources such as hospital operations (e.g., ambulance sirens); machinery; heating, ventilation, and air conditioning (HVAC) systems; compressors; and landscape maintenance equipment. Regardless of the type of noise, the noise levels are highest near the source and decrease with distance.

Sound may be described in terms of level or amplitude (measured in decibels (dB)), frequency or pitch (measured in hertz or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the amplitude of sound is the decibel. Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted sound, and is known to have several adverse effects on people, including hearing loss, speech interference, sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and local agencies have established criteria to protect public health and safety, to prevent disruption of certain human activities, and to minimize annoyance.

Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise, on a community. These descriptors include the equivalent noise level over a given period (L_{eq}), the day–night average noise level (L_{dn}), and the community noise equivalent level (CNEL). Each of these descriptors uses A-weighted decibel units (dBA).

L_{eq} is a sound energy level averaged over a specified time period (usually 1 hour). L_{eq} is a single numerical value that represents the amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour L_{eq} measurement would represent the average amount of energy contained in all the noise that occurred in that 1 hour. L_{eq} is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors. L_{max} is the greatest sound level measured during a designated time interval or event.

Unlike the L_{eq} metric, L_{dn} and CNEL metrics always represent 24-hour periods, usually on an annualized basis. L_{dn} and CNEL also differ from L_{eq} because they apply a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). “Time weighted” refers to the fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime noise (10:00 p.m.–7:00 a.m.) is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5–1 dB. L_{eq} is generally used to measure noise affecting sensitive receptors where noise is not a concern during the evening and nighttime periods (e.g., schools, office buildings) or where the noise is only generated during daytime hours (e.g., construction).

Table 4.9-1 represents some typical noise levels found in the existing environment. Noise-sensitive uses near the project site include residential uses, schools, daycare centers, parks, commercial/industrial businesses, and Calvary Presbyterian Church.

Table 4.9-1
Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
—	110	Rock band
Jet flyover at 300 meters (1,000 feet)	100	—
Gas lawn mower at 1 meter (3 feet)	90	—
Diesel truck at 15 meters (50 feet), at 80 kph (50 mph)	80	Food blender at 1 meter (3 feet) Garbage disposal at 1 meter (3 feet)
Noisy urban area, daytime gas lawn mower at 30 meters (100 feet)	70	Vacuum cleaner at 3 meters (10 feet)
Commercial area Heavy traffic at 90 meters (300 feet)	60	Normal speech at 1 meter (3 feet)
Quiet urban daytime	50	Large business office Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural night time	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 1998.
kph = kilometers per hour; mph = miles per hour

Currently, the project site generates noise associated with existing hospital operations as well as from traffic traveling to and from the hospital campus. Additionally, the site is primarily subject to traffic noise impacts associated with 14th Street, Brockton Avenue, and Market Street / Magnolia Avenue, which flank the project site on three sides. Table 4.9-2 provides average daily traffic (ADT) along the roadway segments that are primarily subject to traffic noise impacts and that have noise-sensitive land uses.

Table 4.9-2
Existing Average Daily Traffic

Roadway Segment	Roadway Classification[a]	ADT[b]
14th St.: West of Brockton Ave.	Two-lane collector	3,099
14th St.: Brockton Ave. to Magnolia Ave.	Four-lane arterial (100 feet)	11,491
14th St.: Magnolia Ave. to Mulberry Ave.	Four-lane arterial (100 feet)	28,557
Brockton Ave.: 14th St. to Tequesquite Ave.	Four-lane arterial (88 feet)	17,643
Brockton Ave.: Tequesquite Ave. to Ramona Dr.	Four-lane arterial (88 feet)	14,332
Magnolia Ave.: 14th St. to 15th St.	Four-lane arterial (100 feet)	27,031

Table 4.9-2
Existing Average Daily Traffic

Roadway Segment	Roadway Classification[a]	ADT[b]
Magnolia Ave.: 15th St. to Ramona Dr.	Four-lane arterial (100 feet)	21,142

Source: Kimley-Horn 2014 (Appendix I).
[a] Existing road/street classification is based on the City of Riverside GP 2025 (City of Riverside 2007a).
[b] ADT volumes for the roadway segments were provided by National Data & Surveying Services and measured in vehicles per day.

Ambient Noise Measurements

Noise measurements were conducted adjacent to and near the project site in June 2013 and July 2013 to determine the existing noise levels. Table 4.9-3 provides the location, date, and time the noise measurements were taken.

The noise measurements were made using a Piccolo Integrating Sound Level Meter (Serial Number 121018007) equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute (ANSI) standard for a Type 2 precision sound level meter. The sound level meter was calibrated before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Seven noise measurement locations that represented key potential sensitive receptors or sensitive land uses were selected adjacent to or near the project site; these locations are depicted as Receptors 1–7 (R1–R7) on Figure 4.9-1. Location R1 was northwest of the project site adjacent to 14th Street. R2 was generally adjacent to the northern portion of the project site south of 14th Street. R3 was southwest of the project site near the intersection of Rice Road and Brockton Avenue. R4 was adjacent to the southern portion of the project site adjacent to Magnolia Avenue at Calvary Presbyterian Church. R5 was southeast of the project site at the intersection of Magnolia Avenue and 15th Street. R6 was east of the project site at the intersection of Magnolia Avenue and 14th Street. R7 was north of the project site north of 14th Street. The measured average noise levels and measurement locations are provided in Table 4.9-3. The primary noise source at the sites mentioned in Table 4.9-3 was from traffic along the adjacent roads.

Table 4.9-3
Measured Noise Levels

Receptors	Location/Address	Date	Time	Description	L_{eq} (dBA)	L_{max} (dBA)
1	Residential Property 4226 14th St. Riverside, CA 92501	June 12, 2013	3:00–3:20 p.m.	Along south side of 14th Street, approximately 25 feet from the center line	57.1	73.4
2	Riverside Community Players Theatre 4026 14th St. Riverside, CA 92501	June 12, 2013	3:40–4:00 p.m.	Along south side of 14th Street, elevated lower than the roadway, approximately 90 feet from the center line	57.1	72.1

Table 4.9-3
Measured Noise Levels

Receptors	Location/Address	Date	Time	Description	L_{eq} (dBA)	L_{max} (dBA)
3	Residential Property 4087 Rice Rd. Riverside, CA 92506	June 13, 2013	1:35–1:55 p.m.	Along east side of Brockton Avenue, approximately 88 feet from the center line	59.1	80.0
4	Calvary Presbyterian Church 4495 Magnolia Ave. Riverside, CA 92501	June 13, 2013	3:15–3:35 p.m.	Along west side of Magnolia Avenue, approximately 350 feet from the center line	56.6	74.3
5	Southwest corner of Magnolia Avenue and 15th St.	June 14, 2013	1:15–1:35 p.m.	Along east side of Magnolia Avenue, approximately 40 feet from the center line	64.2	77.8
6	Newman Park 4440 Magnolia Ave. Riverside, CA 92501	June 14, 2013	2:15–2:35 p.m.	Along east side of Magnolia Avenue, approximately 50 feet from the center line	68.5	88.7
7	Grant Elementary School 4011 14th St. Riverside, CA 92501	July 2, 2013	11:20–11:40 a.m.	Along north side of 14th Street, approximately 130 feet from the center line	66.4	89.5

L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval

Related Regulations

Federal

There are no applicable federal regulations related to noise that would apply to this project.

State

Government Code Section 65302(g)

California Government Code Section 65302(g) requires the preparation of a Noise Element, which shall identify and appraise the noise problems in the community. The Noise Element shall recognize the guidelines adopted by the Office of Noise Control in the State Department of Health Services and shall quantify, to the extent practicable, current and projected noise levels for the following sources:

- Highways and freeways
- Primary arterials and major local streets
- Passenger and freight on-line railroad operations and ground rapid transit systems
- Aviation and airport-related operations
- Local industrial plants
- Other ground stationary noise sources contributing to the community noise environment.

Local

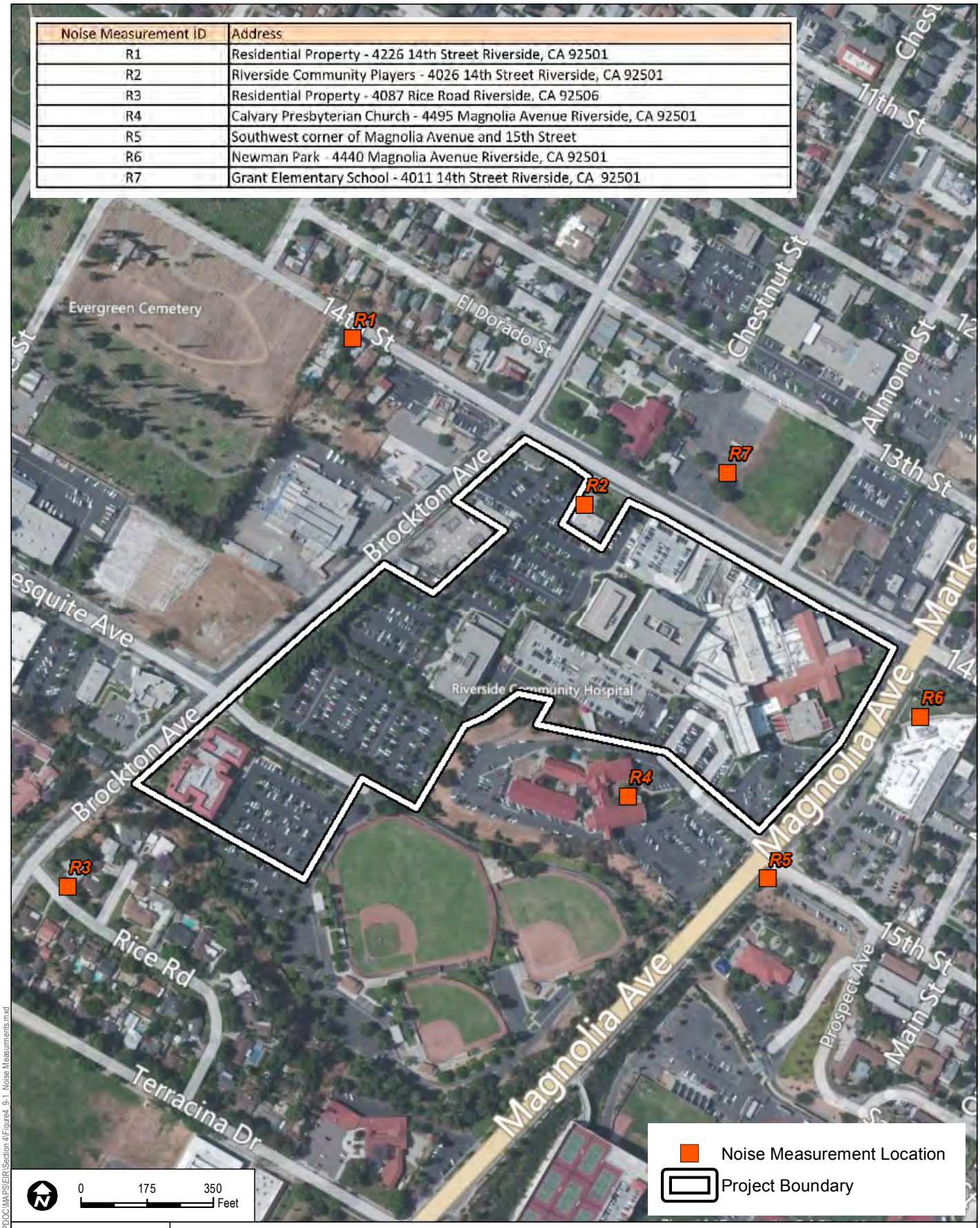
General Plan – Noise Element

The City's Noise Element can be found in the GP 2025 (City of Riverside 2007a). The Noise Element examines noise sources in the City with a view toward identifying and appraising the potential for noise conflicts and identifying ways to reduce existing and potential noise impacts to sensitive receptors. In particular, the Noise Element contains policies and programs to achieve and maintain noise levels compatible with various types of land uses. The Noise Element addresses noise that affects the community at large, rather than noise associated with site-specific conditions. However, the programs in the Noise Element do address effective strategies to reduce and limit community exposure to loud noise sources.

In regard to land use compatibility criteria, new construction or development generally should not be undertaken if it falls within the conditionally unacceptable range unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design. Figure 4.9-2 depicts the noise compatibility criteria established by the City's Noise Element. Based on the Noise/Land Use Noise Compatibility Criteria, the City considers a CNEL greater than 75 dBA to be normally unacceptable for commercial uses, a CNEL greater than 70 dBA to be normally unacceptable for hospital operations, and a CNEL greater than 65 dBA to be normally unacceptable for single-family residential uses.

The City does not have a specific noise criterion for evaluating off-site noise impacts to residences or noise-sensitive areas from project-related traffic. Under controlled conditions in an acoustics laboratory, the trained, healthy human ear is able to discern changes in sound levels of 1 dB when exposed to steady, single-frequency signals in the mid-frequency range. Outside such controlled conditions, the trained ear can detect changes of 2 dB in normal environmental noise. The average healthy ear can barely perceive noise level changes of 3 dB. A change of 5 dB is readily perceptible, and a change of 10 dB is perceived as twice as loud or half as loud. A doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the volume of traffic on a road) would result in a barely perceptible change in sound level. As noted in the City's Final GP 2025 PEIR (2007b), noise analysis methodology is accurate only to the nearest whole decibel and most people only notice a change in the noise environment when the difference in noise levels is around 3 dB. An increase or decrease in noise level of at least 5 dB is required before any noticeable change in community response would be expected. Therefore, a clearly perceptible increase (+5 dB) in noise exposure of sensitive receptors could be considered significant (City of Riverside 2007b). For the purposes of this noise analysis, impacts are considered significant when they cause an increase of 5 dB from existing noise levels or exceed the 65 dBA CNEL noise threshold.

Noise Measurement ID	Address
R1	Residential Property - 4226 14th Street Riverside, CA 92501
R2	Riverside Community Players - 4026 14th Street Riverside, CA 92501
R3	Residential Property - 4087 Rice Road Riverside, CA 92506
R4	Calvary Presbyterian Church - 4495 Magnolia Avenue Riverside, CA 92501
R5	Southwest corner of Magnolia Avenue and 15th Street
R6	Newman Park - 4440 Magnolia Avenue Riverside, CA 92501
R7	Grant Elementary School - 4011 14th Street Riverside, CA 92501



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SOURCE: BING MAPPING SERVICE

FIGURE 4.9-1

Noise Measurement Locations

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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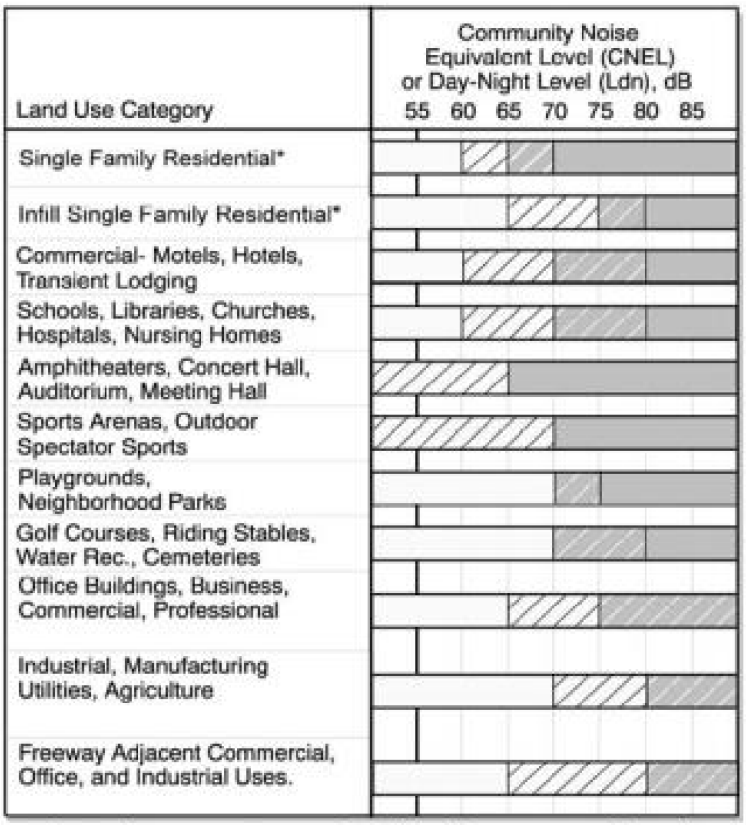

Nature of the noise environment where the CNEL or Ldn level is:

Below 55 dB
Relatively quiet suburban or urban areas, no arterial streets within 1 block, no freeways within 1/4 mile.

55-65 dB
Most somewhat noisy urban areas, near but not directly adjacent to high volumes of traffic.

65-75 dB
Very noisy urban areas near arterials, freeways or airports.

75+ dB
Extremely noisy urban areas adjacent to freeways or under airport traffic patterns. Hearing damage with constant exposure outdoors.

Normally Acceptable
Specific land use is satifactory, based on the assumption that any building is of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in design.

Conditionally Unacceptable
New construction or development should generally not be undertaken, unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

The Community Noise Equivalent Level (CNEL) and Day-Night Noise Level (Ldn) are measures of the 24-hour noise environment. They represent the constant A-weighted noise level that would be measured if all the sound energy received over the day were averaged. In order to account for the greater sensitivity of people to noise at night, the CNEL weighting includes a 5-decibel penalty on noise between 7:00 p.m. and 10:00 p.m. and a 10-decibel penalty on noise between 10:00 p.m. and 7:00 a.m. of the next day. The Ldn includes only the 10-decibel weighting for late-night noise events. For practical purposes, the two measures are equivalent for typical urban noise environments.

* For properties located within airport influence areas, acceptable noise limits for single family residential uses are established by the Riverside County Airport Land Use Compatibility Plan.

SOURCE: STATE DEPARTMENT OF HEALTH,
AS MODIFIED BY THE CITY OF RIVERSIDE

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SOURCE: STATE DEPARTMENT OF HEALTH, CITY OF RIVERSIDE

FIGURE 4.9-2

Noise/Land Use Noise Compatibility Criteria

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Title 7 – City Noise Code

The City's Noise Code (Title 7 – Ord. 6273, Section 1) sets internal and external noise standards for specific land uses/zoning (Sections 7.25.010 and 7.30.015). The City Noise Code also has general noise regulations (Section 7.35.010) that regulate noise from construction activities, or any excessive or offensive noise, that causes discomfort to anyone of normal sensitivity.

Noise-generating sources in Riverside are regulated in Title 7 of the City's Municipal Code (City of Riverside 2007c). The noise limits apply to noise generation from one property to an adjacent property. The noise level limits depend on time of day, duration of the noise, and land use. The exterior noise level limits are depicted in Table 4.9-4. The noise level limits shall not be exceeded on or beyond the boundaries of the property on which the noise is produced. The noise level limit between two different districts is the arithmetic mean of the two districts. For example, the sound level limit between an office/commercial use and residential use is 55 dBA between the hours of 10:00 p.m. and 7:00 a.m., and 60 dBA between the hours of 7:00 a.m. and 10:00 p.m.

The City has established hourly restrictions and noise level limits for construction and demolition activities (City of Riverside 2007c). Construction and demolition activities are not permitted between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between 5:00 p.m. on Fridays and 8:00 a.m. on Saturdays, or at any time on Sundays or federal holidays such that the sound therefrom creates a noise disturbance across a residential or commercial property line or at any time exceeds the maximum permitted noise level for the underlying land use category, except for emergency work or by variance (City of Riverside 2007c).

Table 4.9-4
Exterior Noise Limits

Land Use Category	Noise Level (dBA)	
	Nighttime *10:00 p.m.–7:00 a.m.*	*Daytime* *7:00 a.m.–10:00 p.m.*
Residential	45	55
Office/commercial	65	65
Industrial/non-urban	70	70
Community support	60	60
Public recreation facility	65	65

Source: City of Riverside 2007c.

City of Riverside General Plan 2025

The noise section of the City's GP 2025 (2007a) includes the following selected objectives and policies related to noise standards for construction-related, point source, and transportation-related sources that will be applied to the project:

Objective N-1: Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.

Policy N-1.2: Require the inclusion of noise-reducing design features in development consistent with standards in (Table 4.9-4, Noise/Land Use Compatibility Criteria), Title 24 California Code of Regulations and Title 7 of the Municipal Code.

Policy N-1.3: Enforce the City of Riverside Noise Control Code to ensure that stationary noise and noise emanating from construction activities, private developments/residences and special events are minimized.

Policy N-1.4: Incorporate noise considerations into the site plan review process, particularly with regard to parking and loading areas, ingress/egress points, and refuse collection areas.

Policy N-1.5: Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.

Policy N-1.7: Evaluate noise impacts from roadway improvement projects by using the City's Acoustical Assessment Procedure.

Policy N-1.8: Continue to consider noise concerns in evaluating all proposed development decisions and roadway projects.

Policy N-2.2 Avoid placing noise-sensitive land uses (e.g., residential uses, hospitals, assisted living facilities, group homes, schools, day care centers, etc.) within the high noise impact areas (over 60 dB CNEL) for Riverside Municipal Airport and Flabob Airport in accordance with the Riverside County Airport Land Use Compatibility Plan.

Objective N-4: Minimize ground transportation-related noise impacts.

Policy N-4.1: Ensure that noise impacts generated by vehicular sources are minimized through the use of noise reduction features (i.e., earthen berms, landscaped walls, lowered streets, improved technology).

Policy N-4.5: Use speed limit controls on local streets as appropriate to minimize vehicle traffic noise.

Policy CCM-2.9: Design all street improvement projects in a comprehensive fashion to include consideration of street trees, pedestrian walkways, bicycle lanes, equestrian pathways, signing, lighting, noise, and air quality wherever any of these factors are applicable.

4.9.2 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS prepared for the project and Appendix G, a development project could have a significant impact related to noise if the project would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Expose persons to or generate excessive groundborne vibration or groundborne noise levels
- Create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- Be located within an airport land use plan, or within two miles of a public airport or public use airport such that the proposed project would expose people residing or working in the project area to excessive noise levels (14 CCR 15000 et seq., Appendix G).

4.9.3 Project Elements That Can Reduce Impacts

As listed in Table 2.0-5, Summary of Project Design Features and Construction Measures, construction activities would generally occur Monday through Friday from 7:00 a.m. to 7:00 p.m. and on Saturdays from 8:00 a.m. to 5:00 p.m., in compliance with the City's Municipal Code, Section 7.35. Additionally, the applicant has prepared a traffic control plan that includes provisions for coordinating with local school hours and emergency service providers regarding construction times. The proposed Specific Plan design guidelines direct emergency vehicle access away from residential land uses.

4.9.4 Environmental Impacts Before Mitigation

Ambient noise measurements were conducted to quantify the existing daytime noise environment at seven sites. Noise levels resulting from the proposed construction activities have been obtained from reports prepared by the Federal Transit Administration (FTA 2006) and field data from files. The noise impact assessment utilized criteria established in the City of Riverside GP 2025 (2007a) and Municipal Code (City of Riverside 2007c).

The noise level associated with selected roadways was determined based on ambient noise measurements and using the Federal Highway Administration TNM 2.5 Traffic Noise Model (FHWA 2004).

Threshold: Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Project- and Program-Level Elements

The noise levels used to determine significance associated with on-site activities are shown in Table 4.9-4. For the purposes of this analysis, project-generated traffic noise impacts are considered significant when they cause an increase of 5 dB from existing noise levels or exceed the 65 dBA CNEL noise threshold. An increase or decrease in noise level of at least 5 dB is required before any noticeable change in community response would be expected. Therefore, a clearly perceptible increase (+5 dB) in noise exposure of sensitive receptors could be considered significant (City of Riverside 2007b). The City's conditionally acceptable noise level for hospitals is 70 dBA CNEL; therefore, this threshold is utilized for this analysis.

On-site noise-generating activities associated with all phases of the project (Phase I, Phase IIa, Phase IIb, and Phase IIc) would include short-term construction and demolition of existing buildings as well as long-term operational noise associated with hospital operations, such as noise from emergency vehicles (e.g., ambulance sirens and helicopters), proposed parking structures and surface parking, and other on-site noise sources (such as emergency standby generators and HVAC equipment). All phases of the project would also generate off-site traffic noise along various roads in the area. In addition, the existing and proposed uses on site will be subject to traffic noise from Magnolia Avenue, 14th Street, and Brockton Avenue.

Short-Term Construction Noise

Development activities for project construction would generally involve the following sequence for all phases of the project: (1) site demolition, (2) site grading, (3) trenching, (4) building construction, (5) architectural coating, and (6) paving. Although specific project construction

details and equipment fleet specifications are not available at this time, the following are typical types of construction equipment that would be expected:

- Concrete/industrial saws
- Excavators
- Dozers
- Tractors/loaders/backhoes
- Forklifts
- Welders
- Cement and mortar mixers
- Paving equipment
- Trenching equipment
- Off-highway water trucks
- Materials delivery trucks
- Pneumatic tools
- Graders
- Cranes
- Generator sets
- Air compressors
- Pavers
- Scrapers
- Rollers
- Concrete trucks
- Asphalt trucks.

As demonstrated by this list, construction equipment anticipated for all phases of project development would include only standard equipment that would be employed for any routine construction project of this scale; construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, blasting equipment) would not be necessary for development of any phase of the project.

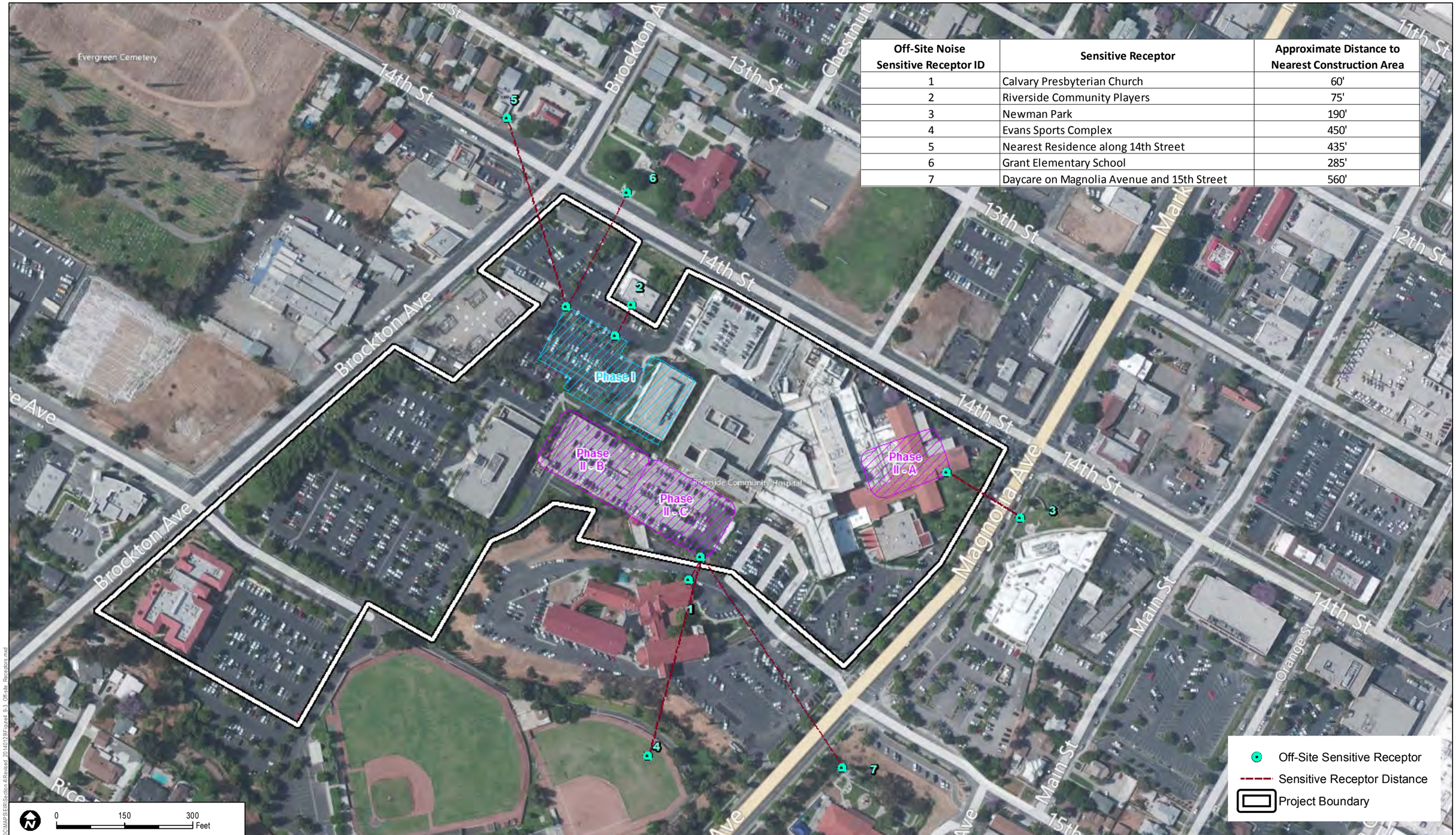
Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time, condition of each piece of equipment, and number of pieces of equipment that will actually operate on the site. The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in Table 4.9-5. The noise values represent maximum noise generation, or full-power operation of the equipment. As an example, a loader and two dozers, all operating at full power and relatively close together, would generate a maximum sound level of approximately 90 dBA at 50 feet from their operations. As one increases the distance between equipment, or separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together. In addition, typical operating cycles may involve 2 minutes of full-power operation, followed by 3 or 4 minutes at lower levels. The average noise level during construction activities is generally lower, since maximum noise generation may only occur up to 50% of the time.

Table 4.9-5
Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Air compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Impact wrench	85
Jackhammer	88
Loader	85
Paver	89
Pneumatic tool	85
Pump	76
Roller	74
Saw	76
Truck	88

Source: FTA 2006.

The nearest off-site sensitive receptor to the project work would be the Calvary Presbyterian Church, located approximately 60 feet from the nearest point of planned construction (Phase IIc). A live performance theater (the Riverside Community Players Theatre) is located approximately 75 feet from planned construction (Phase I hospital bed tower). A small park (Newman Park) is located at the southeast corner of Magnolia Avenue and 14th Street, approximately 190 feet from the nearest construction point (Phase IIa). Evans Sports Complex is located south of the Calvary Presbyterian Church, approximately 450 feet away from the location of Phase IIc construction. The nearest residences (located adjacent to 14th Street, west of Brockton Avenue) would be approximately 435 feet from the nearest construction area (Phase I hospital bed tower). The nearest school (Grant Elementary School) would be approximately 285 feet from the construction area (Phase I hospital bed tower). The daycare facility on Magnolia Avenue and 15th Street would be approximately 560 feet from the construction area (Phase IIc) (see Figure 4.9-3, Off-Site Sensitive Receptors).



Off-Site Noise Sensitive Receptor ID	Sensitive Receptor	Approximate Distance to Nearest Construction Area
1	Calvary Presbyterian Church	60'
2	Riverside Community Players	75'
3	Newman Park	190'
4	Evans Sports Complex	450'
5	Nearest Residence along 14th Street	435'
6	Grant Elementary School	285'
7	Daycare on Magnolia Avenue and 15th Street	560'

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SOURCE: BING MAPPING SERVICE

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

FIGURE 4.9-3

Off-Site Sensitive Receptors

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The noise levels from construction operations decrease at a rate of approximately 6 dB per doubling of distance from the source. Therefore, at a distance of 60 feet (the approximate distance from the nearest side of Phase IIc of the project to the church to the south), construction noise levels would be about 2 dB lower than shown in Table 4.9-5, ranging from approximately 72 to 87 dBA L_{eq}. At the nearest residences, it is estimated that the maximum noise levels from construction would range from approximately 55 to 70 dBA L_{eq}. The City's Noise Code, Chapter 7.25.010, allows exceedances of these noise levels for short periods; however, the average noise levels would nonetheless exceed the City's daytime standard. The estimated construction noise levels at nearby noise-sensitive land uses are summarized in Table 4.9-6.

Table 4.9-6
Short-Term (Construction) Noise Levels

Representative Noise-Sensitive Land Uses	Approximate Distance from Nearest Construction	Construction Noise Level Range (dBA L_{eq})	City of Riverside Noise Code Daytime Standard (dBA)
Calvary Presbyterian Church	60 feet to Phase IIc	72–87	60
Riverside Community Players Theatre	75 feet to Phase I hospital bed tower	70–85	60[a]
Newman Park	190 feet to Phase IIa	62–77	65
Grant Elementary School	285 feet to Phase I hospital bed tower	59–74	60
Residences – 14th St. west of Brockton Ave.	435 feet to Phase I hospital bed tower	55–70	55
Evans Sports Complex	450 feet to Phase IIc	55–70	65
Daycare facility– Magnolia Ave. and 15th St.	560 feet to Phase IIc	53–68	60

Source: City of Riverside2007c; see Figure 4.9-3, Off-Site Sensitive Receptors.
[a] Since there is no specific land use category for theaters, the Community Support land use category in the City's Noise Code was used for this analysis.

As shown in Table 4.9-6, construction activities associated with demolition of existing structures and construction of the project would exceed City of Riverside Noise Code standards and have the potential to adversely affect adjacent noise-sensitive uses (through annoyance, disruption of conversations, etc.), particularly at the nearest land uses such as the Calvary Presbyterian Church, the Riverside Community Players Theatre, Newman Park, Grant Elementary School, and residences on 14th Street west of Brockton Avenue. Weekday daytime activities at Calvary Presbyterian Church include, but are not limited to, bible study and staff meetings. Weekday daytime activities at the Riverside Community Players Theatre include programming for schoolchildren and offering opportunities for school field trips for students to see live theater. As such, noise from construction activities

from all phases of the project would represent a significant impact at nearby noise-sensitive land uses during the louder stages of construction/demolition.

As a way to minimize impacts associated with construction noise, Phases I, IIa, IIb, and IIc of the project would be required to limit construction hours and ensure that engine silencers are in working order, among other mitigation measures, as outlined in **MM NOISE-1** (see Section 4.9.5, Mitigation Measures). Construction noise reductions from the measures included in **MM NOISE-1** are difficult to quantify due to the variables involved (e.g., the specific equipment types and individual equipment's condition). For example, improved mufflers can reduce exhaust noise by approximately 6 to 15 dB (Eaton 2000); thus, replacing a faulty or poorly fitted muffler could reduce exhaust noise by as much as 6 to 15 dB. However, using a muffler in such a way would achieve a noise reduction for the exhaust component of the equipment only, and only for the individual piece of equipment so treated. Thus the overall reduction in construction noise from using a muffler would depend to a large extent on the locations of each piece of equipment relative to the noise-sensitive receivers, which in this case generally surround the project site. Similarly, relocating a construction staging/laydown area from a southerly location on site to a more northerly location would reduce construction noise at receivers to the south, but not by a sufficient amount so as to meet the City's noise standard of 60 dBA.[1] For these reasons, **MM NOISE-1** would reduce construction noise levels, but since it will not completely reduce noise levels to levels below the City's standard, impacts from construction noise from all phases of the project (Phase I, Phase IIa, Phase IIb, and Phase IIc) are considered **significant** even with mitigation incorporated.

Hauling of soils and construction materials is not expected to cause noise impacts to sensitive receptors. Noise from the haul trucks would be relatively brief and periodic in nature and would cease once the haul trucks pass through the main streets (Magnolia Avenue / Market Street and/or 14th Street) to State Route 91. Therefore, noise impacts from haul trucks are considered **less than significant**.

Long-Term Operational Noise Impact

Long-term operational noise associated with hospital operations includes noise from emergency vehicles (e.g., ambulance sirens, occasional helicopter arrivals and departures for trauma cases), proposed parking structures and surface parking, and other on-site noise generators (such as emergency standby generators and HVAC equipment). Long-term operational noises also include project-generated traffic and overall traffic noise at the site.

[1] Based on Table 4.9-6, a noise reduction of up to 27dB would be needed to meet a 60 dBA L_{eq} noise level (City of Riverside 2007c; see Figure 4.9-3, Off-Site Sensitive Receptors). In order to achieve such a reduction, the distance from source to receiver would need to be increased to well beyond the boundaries of the project site.

Emergency Vehicle and Helicopter Noise

Emergency vehicle and helicopter visits to the RCH campus create a source of noise. The frequency of emergency vehicle and helicopter visits, and therefore the use of sirens or noise from helicopter landings, is not dictated by the number of hospital beds, but rather by the emergency room capacity. Currently, there is no way to predict medical emergencies that require visits of emergency vehicles and helicopters that create a source of noise at the site. Ambulances currently enter and exit from 14th Street via the driveway between Buildings F and G (see Figure 4.9-4, Site Plan). During the noise field measurements on July 2, 2013, at Grant Elementary School, noise from an ambulance using the siren and traveling westbound on 14th Street was measured (refer to R7 on Figure 4.9-1, Noise Measurement Locations). The loudest noise level measured at a distance of approximately 130 feet from the measurement location was 89.5 dBA L_{max}. Since the emergency room facility at RCH is not being expanded as part of the Specific Plan, no significant increase in siren noise from emergency vehicles and helicopters is expected. Noise from emergency vehicle sirens would be relatively brief and periodic in nature and would cease once the emergency vehicles either enter or exit the area. Therefore, impacts from increased emergency vehicle use would be **less than significant.**

An existing helipad is located approximately 13.5 feet above the top level of the parking structure along 14th Street (identified as Building G on Figure 4.9-4, Site Plan). The existing helipad consists of an approximately 54-foot-square touchdown and liftoff area on an elevated metal landing pad with associated gurney ramp, safety net, wind cone, lighting, and painted markings. Primary arrival/departure approaches are east and west of the helipad. The helipad is used to accommodate public service helicopters (as large as the Sikorsky Blackhawk, 64.8 feet in length) for community disaster preparedness, and to accommodate Emergency Medical Service helicopters. As stated in the City's Conditional Use Permit (CUP) Case P09-0693 and Design Review (DR) Case P09-0694 for the helipad, approximately 12 landings per month will occur, and the heaviest use is typically during non-school hours, such as late evenings and weekends (City of Riverside 2010). Based on the noise analysis that was prepared for the existing heliport, the City determined in its CUP and DR cases that the heliport would not generate noise levels that would be detrimental to surrounding uses or out of compliance with the City's Noise Code. No change in noise from helicopter/helipad operations is anticipated as part of this project. The existing helipad would not change locations, and no increase in helicopter operations is proposed or anticipated as part of this project. Therefore, helicopter noise levels would remain as they are in the existing scenario, and impacts from helicopter noise as they relate to this project would be **less than significant.**

Proposed Parking Structures and Surface Parking Noise

Traffic associated with the proposed parking garage structures (including the parking structure (Building O) under construction and anticipated to be completed by February 2014) and surface parking noise would not be of sufficient volume to exceed community noise standards based on a time-averaged scale such as CNEL or L_{eq} (Mestre Greve Associates 2011). However, the instantaneous maximum sound levels generated by a car door slamming, an engine starting up, or cars passing by could be annoying to people at Calvary Presbyterian Church (the closest sensitive receptor). Tire squeal associated with any parking structures likely would not be a factor, as the parking structures would be designed and conditioned to include surfaces that reduce noise generated by tire squeal.

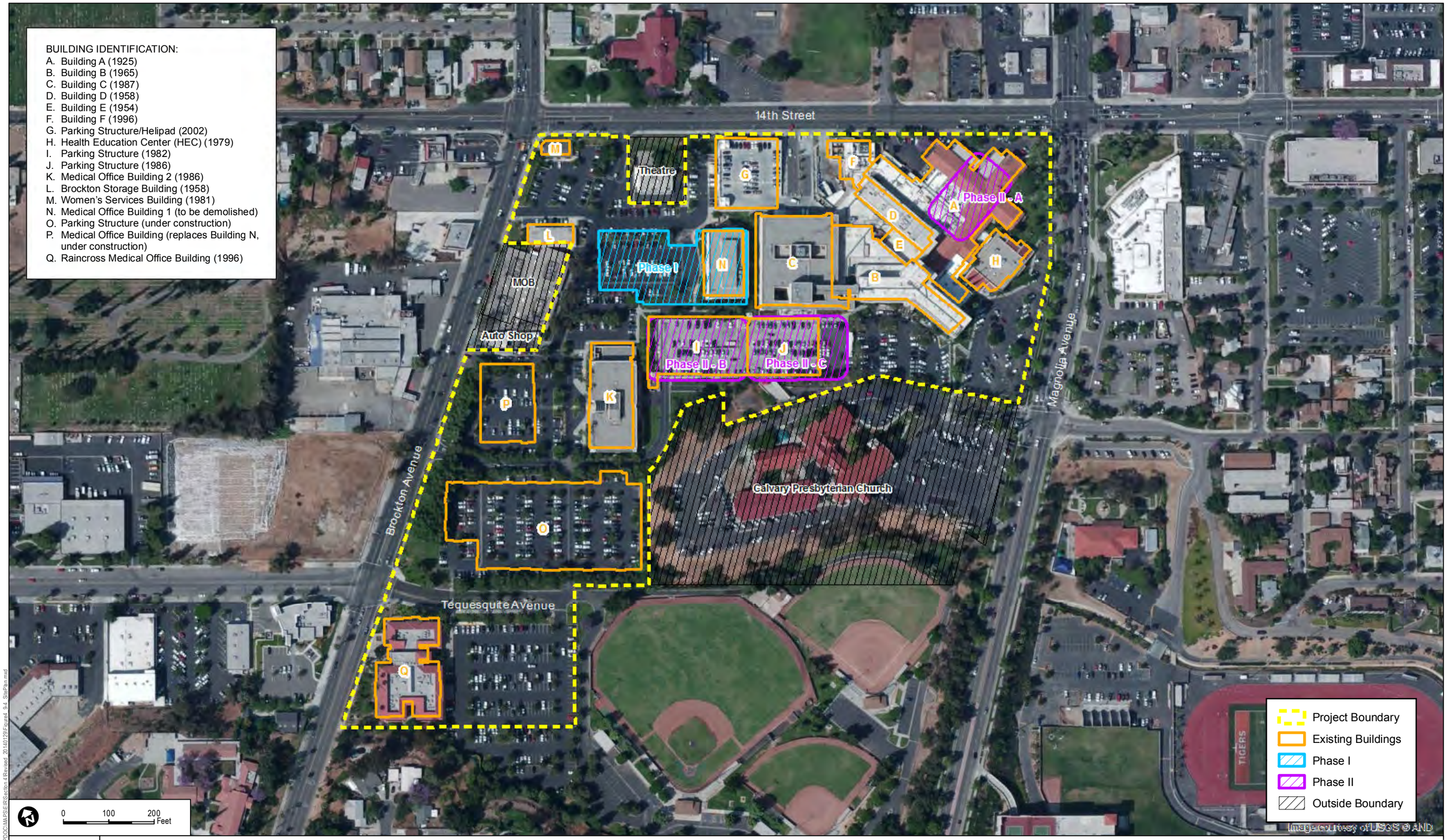
Other noise generated by parking activities is an instantaneous rather than a steady noise level. Therefore, L_{max} is the most appropriate noise metric applicable to parking activities. Table 4.9-7 provides estimates of the maximum noise levels associated with common parking lot activities. The noise levels are presented at a distance of 50 feet from the source and represent the maximum noise level generated. A range is given to reflect the variability of noise generated by various automobile types and driving styles.

Table 4.9-7
Typical Noise Levels Resulting from Parking Lot Activities

Event	Maximum Noise Level at 50 Feet (dBA L_{max})
Door slamming	60–70
Engine starting up[a]	60–70
Car passing by[b]	55–70

Source: Mestre Greve Associates 2011.
[a] Higher values from poor muffler systems.
[b] Typical values were in the low 60s.

No surface parking or parking structures are proposed as part of Phase I of the project. However, surface parking or parking structures may be proposed during Phase IIa, IIb, or IIc of the project. Site-specific proposed parking areas are not available at this time. In the event that future surface parking or parking structures are proposed, a noise study shall be conducted (**MM NOISE-2**) to determine the maximum noise level to sensitive receptors from a door slam, engine startup, or a car passing by and to provide measures to reduce noise from the parking garage uses. Potential noise impacts from parking structures or surface parking are considered to be **less than significant with mitigation incorporated**.



DUDEK

7824-01

SOURCE: Kimley-Horn and Associates, Perkins+Will, BING

FIGURE 4.9-4

Site Plan

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

Path: Z:\Projects\7824\01\MAPDOC\MAPS\EIR\Section 4\Revised_20140129\Figure4_9-4_SitePlan.mxd

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On-Site Noise Generators

On-site stationary equipment such as emergency standby generators, the central plant, and HVAC equipment could be mounted on roofs or at the ground level of the hospital or hospital-related facilities. HVAC units would be located on the top of the hospital towers and medical office buildings and surrounded by rooftop parapet walls; thus, noise-sensitive receivers would not have a direct view of them.

The specific details (sizes, manufacturers, and models) of the equipment have not yet been determined. The noise levels generated by this equipment would vary, but would typically range from approximately 45 dBA to 55 dBA at a distance of 50 feet. Table 4.9-8 presents the estimated noise levels projected out to the nearest noise-sensitive land use from on-site stationary equipment. As shown in Table 4.9-8, noise levels from stationary equipment would not exceed the City's noise standards, provided that the noise levels from the equipment selected for the project do not exceed the assumed noise range (i.e., 45–55 dBA at a reference distance of 50 feet) by more than 7 dB.

Table 4.9-8
Noise from On-Site Stationary Equipment

Representative Noise-Sensitive Land Uses	Approximate Distance from Stationary Equipment Noise Source	Estimated Noise Level (dBA L_{eq})[a]	City of Riverside Noise Code Daytime/Nighttime Standard (dBA L_{eq})
Calvary Presbyterian Church	60 feet to Phase IIc	43–53	60/60
Riverside Community Players Theatre	75 feet to Phase I hospital bed tower	41–51	60/60
Newman Park	190 feet to Phase IIa	33–43	65/65
Grant Elementary School	285 feet to Phase I hospital bed tower	30–40	60/60
Residences, 14th St. west of Brockton Ave.	435 feet to Phase I hospital bed tower	26–36	55/45
Evans Sports Complex	450 feet to Phase IIc	26–36	65/65
Daycare facility, Magnolia Ave. and 15th St.	560 feet to Phase IIc	24–34	60/60

[a] Conservatively omits additional noise reduction from intervening structures such as parapet walls or other buildings.

To ensure that noise from HVAC equipment, central plant equipment, and the emergency standby generator would not cause an exceedance of the City's Noise Code standards (e.g., 45 dBA L_{eq} nighttime / 55 dBA L_{eq} daytime for residences, 60 dBA L_{eq} daytime or nighttime for community support land uses), **MM NOISE-3** shall be incorporated for all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of construction.

With the inclusion of this mitigation measure for operational noise impacts from emergency vehicles/helicopters, parking noise, and stationary equipment noise, on-site noise related to all

phases of the project would meet the City's noise standards and would be **less than significant with mitigation incorporated.**

Off-Site Traffic Noise Level

The project would generate traffic along adjacent roads including Magnolia Avenue, 14th Street, and Brockton Avenue. The City does not have a specific noise criterion for evaluating off-site noise impacts to residences or noise-sensitive areas from project-related traffic. For the purposes of this noise study, such impacts are considered significant when they cause an increase of 5 dB from existing noise levels or exceed the 65 dBA CNEL noise threshold. An increase or decrease in noise level of at least 5 dB is required before any noticeable change in community response would be expected. Therefore, a clearly perceptible increase (+5 dB) in noise exposure of sensitive receptors could be considered significant (City of Riverside 2007b).

The existing (includes the medical office building and parking structure under construction) plus project traffic noise would generate a noise level increase of 1 dB CNEL or less (rounded to whole numbers) along the studied roads in the vicinity of the site. The noise level increases associated with the additional traffic volume are depicted in Table 4.9-9. The additional traffic volume along the adjacent roads would not substantially increase the existing noise level in the project vicinity and the traffic noise level increase is considered **less than significant**; no mitigation measures are necessary.

Table 4.9-9
Project-Related Traffic Noise: Existing

Modeled Receptor	Roadway Segment	Existing ADT	Existing + Project ADT	Existing Noise Level (dBA CNEL)	Existing + Project Noise Level (dBA CNEL)	Noise Level Increase (dB)
R1: Residences	14th St.: west of Brockton Ave.	3,099	3,272	60	61	1
R2: Riverside Community Players Theatre	14th St.: Brockton Ave. to Magnolia Ave.	11,491	13,917	61	62	1
R3: Residences	Brockton Ave.: Tequesquite Ave. to Ramona Dr.	14,332	15,776	62	62	0
R4: Calvary Presbyterian Church	Magnolia Ave.: 14th St. to 15th St.	27,031	27,493	56	56	0
R5: Daycare facility	Magnolia Ave.: 14th St. to 15th St.	27,031	27,493	67	67	0
R6: Newman Park	Magnolia Ave.: 14th St. to 15th St.	27,031	27,493	69	69	0
R7: Grant Elementary School	14th St.: Brockton Ave. to Magnolia Ave.	11,491	13,917	64	65	1

Source: Kimley-Horn 2014 (Appendix I).

The project's traffic study analyzed project ADT to Year 2035. Traffic modeling data is not reliable beyond that year, which is why beyond Year 2035 was not analyzed for the project. With the project, the Year 2035 (i.e., existing plus ambient growth plus cumulative plus project ADT) traffic noise would generate a noise level increase of approximately 1 dB CNEL or less compared to the Year 2035 without project scenario. The noise level increases associated with the Year 2035 conditions are depicted in Table 4.9-10. The additional project traffic volume along the adjacent roads in Year 2035 would not substantially increase the existing noise level in the project vicinity and the traffic noise level increase is considered less than significant; no mitigation measures are necessary.

Table 4.9-10
Project-Related Traffic Noise: Year 2035

Modeled Receptor	Roadway Segment	Year 2035 Without Project ADT	Year 2035 + Project ADT	2035 Without Project Noise Level (dBA CNEL)	2035 + Project Noise Level (dBA CNEL)	Noise Level Increase (dB CNEL)
R1: Residences	14th St.: west of Brockton Ave.	351	524	54	55	1
R2: Riverside Community Players Theatre	14th St.: Brockton Ave. to Magnolia Ave.	18,748	21,174	63	63	0
R3: Residences	Brockton Ave.: Tequesquite Ave. to Ramona Dr.	20,773	22,217	64	64	0
R4: Calvary Presbyterian Church	Magnolia Ave.: 14th St. to 15th St.	29,671	30,133	57	58	1
R5: Daycare facility	Magnolia Ave.: 14th St. to 15th St.	29,671	30,133	69	69	0
R6: Newman Park	Magnolia Ave.: 14th St. to 15th St.	29,671	30,133	70	70	0
R7: Grant Elementary School	14th St.: Brockton Ave. to Magnolia Ave.	18,748	21,174	66	67	1

Threshold: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project- and Program-Level Elements

The heavier pieces of construction equipment used at the project site could include dozers, graders, cranes, loaded trucks, water trucks, and pavers. Ground-borne vibration information related to construction activities has been collected by the California Department of Transportation (Caltrans; 2004). Information from Caltrans indicates that continuous vibrations with a peak particle velocity of approximately 0.1 inches/second begin to cause annoyance. Ground-borne vibration is typically attenuated over short distances (typically on the order of 25 feet). The closest homes would be approximately 435 or more feet from the construction area (Phase I hospital bed tower), the nearest school (Grant Elementary School) would be approximately 285 feet from the construction area (Phase I hospital bed tower), the daycare facility on Magnolia Avenue and 15th Street would be approximately 560 feet from the construction area (Phase IIc), and Calvary Presbyterian Church would be approximately 60 feet from the nearest construction area (Phase IIc). At this distance and with the anticipated construction equipment, the peak particle velocity is estimated to be 0.024 inches/second at 60 feet, which would be well below 0.1 inches/second at the adjacent sensitive receptors mentioned in the Caltrans guidance. Therefore, construction activities are not anticipated to result in continuous vibration levels that typically annoy people, and the vibration impact would be considered **less than significant**; no mitigation measures are necessary.

Threshold: Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Project- and Program-Level Elements

As discussed previously, long-term operational noise would result from hospital operations such as noise from emergency vehicles (e.g., ambulance sirens and helicopters), proposed parking structures and surface parking, and other on-site noise sources (such as emergency standby generators and HVAC equipment) and would be considered a permanent noise source. The project would also generate off-site traffic noise along adjacent roads including Magnolia Avenue, 14th Street, and Brockton Avenue as well as overall traffic noise at the site.

Since the emergency room facility at RCH is not being expanded as part of the Specific Plan, no significant increase in siren noise from emergency vehicles and helicopters is expected. Noise from emergency vehicles would be relatively brief and periodic in nature and would cease once the emergency vehicles either enter or exit the area. Therefore, impacts from emergency vehicle use would be **less than significant.**

No change in noise from helicopter/helipad operations is anticipated as part of this project. The existing helipad would not change locations, and no increase in helicopter operations is proposed or anticipated as part of this project. Therefore, helicopter noise levels would remain as they are in the existing scenario, and impacts from helicopter noise as a result of this project would be **less than significant.**

No surface parking or parking structures are proposed as part of Phase I of the project. However, surface parking or parking structures may be proposed during Phase IIa, IIb, or IIc of the project. Site-specific proposed parking areas are not available at this time. In the event that future surface parking or parking structures are proposed, a noise study shall be conducted (**MM NOISE-2**) to determine the maximum noise level to sensitive receptors from a door slam, engine startup, or a car passing by. Potential noise impacts from parking structures or surface parking are considered to be **less than significant with mitigation incorporated.**

As shown in Table 4.9-8, Noise from On-Site Stationary Equipment, noise levels from stationary equipment such as emergency standby generators, the central plant, and HVAC equipment would not exceed the City's noise standards, provided that the noise levels from the equipment selected for the project do not exceed the assumed noise range (i.e., 45–55 dBA at a reference distance of 50 feet) by more than 7 dB. To ensure that noise from HVAC equipment, central plant equipment, and the emergency standby generator would not cause an exceedance of the City's Noise Code standards (e.g., 45 dBA L_{eq} nighttime/55 dBA L_{eq} daytime for residences, 60 dBA L_{eq} daytime or nighttime for community support land uses), **MM NOISE-3** shall be incorporated for all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of construction. With the inclusion of **MM NOISE-3** for operational noise impacts, on-site noise related to the project would meet the City's noise standards and would be **less than significant with mitigation incorporated**.

The project would generate traffic along adjacent roads, including Magnolia Avenue, 14th Street, and Brockton Avenue. The City does not have a specific noise criterion for evaluating off-site noise impacts to residences or noise-sensitive areas from project-related traffic. For the purposes of this noise study, such impacts are considered significant when they cause an increase of 5 dB from existing noise levels or exceed the 65 dBA CNEL noise threshold. An increase or decrease in noise level of at least 5 dB is required before any noticeable change in community response would be expected. Therefore, a clearly perceptible increase (+5 dB) in noise exposure of sensitive receptors could be considered significant (City of Riverside 2007b).

As shown in Table 4.9-9, existing plus project traffic noise would generate a noise level increase of 1 dB CNEL or less (rounded to whole numbers) along the studied roads in the vicinity of the site. Therefore, the additional traffic volume along the adjacent roads would not substantially

increase the existing noise level in the project vicinity and the traffic noise level increase would be considered **less than significant**; no mitigation measures are necessary.

When the project is considered with other area projects along with an ambient growth factor, in Year 2035, project traffic noise would generate a noise level increase of approximately 1 dB CNEL or less compared to the Year 2035 without project scenario. The noise level increases associated with the Year 2035 conditions are depicted in Table 4.9-10. The additional project traffic volume along the adjacent roads in Year 2035 would not substantially increase the existing noise level in the project vicinity and the traffic noise level increase would be considered **less than significant**; no mitigation measures are necessary.

Threshold: Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The project's temporary noise increases would result from construction activities. As discussed previously, construction activities for the project would generally involve the following sequence: (1) site demolition, (2) site grading, (3) trenching, (4) building construction, (5) architectural coating, and (6) paving.

The nearest off-site sensitive receptor to the project work would be the Calvary Presbyterian Church, located approximately 60 feet from the nearest point of planned construction (Phase IIc). A live performance theater (the Riverside Community Players Theatre) is located approximately 75 feet from planned construction (Phase I hospital bed tower). A small park (Newman Park) is located at the southeast corner of Magnolia Avenue and 14th Street, approximately 190 feet from the nearest construction point (Phase IIa). Evans Sports Complex is located south of the Calvary Presbyterian Church, approximately 450 feet away from the location of Phase IIc construction. The nearest residences (located adjacent to 14th Street, west of Brockton Avenue) would be approximately 435 feet from the nearest construction area (Phase I hospital bed tower). The nearest school (Grant Elementary School) would be approximately 285 feet from the construction area (Phase I hospital bed tower). The daycare facility on Magnolia Avenue and 15th Street would be approximately 560 feet from a construction area (Phase IIc) (see Figure 4.9-3, Off-Site Sensitive Receptors).

The noise levels from construction operations decrease at a rate of approximately 6 dB per doubling of distance from the source. Therefore, at a distance of 60 feet (the approximate distance from the nearest side of Phase IIc of the project to the church to the south), construction noise levels would be about 2 dB lower than shown in Table 4.9-5, ranging from approximately 72 to 87 dBA L_{eq}. At the nearest residences, it is estimated that the maximum noise levels from construction would range from approximately 55 to 70 dBA L_{eq}.

As shown in Table 4.9-6, construction activities associated with demolition of existing structures and construction of the project would exceed City of Riverside Noise Code standards and have the potential to adversely affect adjacent noise-sensitive uses (through annoyance, disruption of conversations, etc.), particularly at the nearest land uses such as the Calvary Presbyterian Church, the Riverside Community Theatre, Newman Park, Grant Elementary School, and residences on 14th Street west of Brockton Avenue. As such, noise from construction activities from all phases of the project would represent a significant impact at nearby noise-sensitive land uses during the louder stages of construction/demolition.

As a way to minimize impacts associated with construction noise, all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of the project should be required to limit construction hours and to ensure that engine silencers are in working order, among other mitigation measures as outlined in **MM NOISE-1** (see Section 4.9.5, Mitigation Measures). Construction noise reductions from the measures included in **MM NOISE-1** are difficult to quantify due to the variables involved (e.g., the specific equipment types and individual equipment's condition). As discussed previously, improved mufflers can reduce exhaust noise by approximately 6 to 15 dB (Eaton 2000), and replacing a faulty or poorly fitted muffler could reduce exhaust noise by as much as 6 to 15 dB. However, using a muffler in such a way would achieve a noise reduction for the exhaust component of the equipment only, and only for the individual piece of equipment so treated. Thus the overall reduction in construction noise from using a muffler would depend to a large extent on the locations of each piece of equipment relative to the noise-sensitive receivers, which in this case generally surround the project site. Similarly, relocating a construction staging/laydown area from a southerly location on site to a more northerly location would reduce construction noise at receivers to the south, but not by a sufficient amount so as to meet the City's noise standard of 60 dBA. For these reasons, **MM NOISE-1** would reduce construction noise levels, but since it will not completely reduce noise levels to levels below the City's standard, short-term construction impacts during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project would be considered **significant** even with mitigation incorporated.

Threshold: Would the project be 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 that would expose people residing or working in the project area to excessive noise levels?

The project site is located approximately 1.43 miles east of Flabob Airport. According to Figure 5.7-2, Airport Safety and Compatibility Zones, in the City's Final GP 2025 PEIR (City of Riverside 2007b), the project site is not located within Flabob Airport safety zones or other airport environs.

There is an existing helistop/helipad approximately 13.5 feet above the top level of the hospital's parking structure along 14th Street (identified as Building G on Figure 4.9-4, Site Plan). Primary

arrival/departure approaches are east and west of the helipad. The helipad is used to accommodate public service helicopters (as large as the Sikorsky Blackhawk, 64.8 feet in length) for community disaster preparedness, and to accommodate Emergency Medical Service helicopters. As stated in the City's CUP Case P09-0693 and DR Case P09-0694 for the helipad, approximately 12 landings per month will occur, and the heaviest use is typically during non-school hours, such as late evenings and weekends (City of Riverside 2010). Based on the noise analysis that was prepared for the existing heliport, the City determined in its CUP and DR cases that the heliport would not generate noise levels that would be detrimental to surrounding uses or out of compliance with the City's Noise Code. No change in noise from helicopter/helipad operations is anticipated as part of this project. The existing helipad would not change locations, and no increase in helicopter operations is proposed or anticipated as part of this project. As such, implementation of the project would not expose people residing or working in the project area to excessive noise levels. Therefore, impacts are considered to be **less than significant** and no mitigation measures are necessary.

4.9.5 Mitigation Measures

Section 15126.4 of the CEQA Guidelines requires EIRs to describe feasible measures that can minimize significant adverse impacts. The following mitigation measures have been evaluated for feasibility and are incorporated in order to reduce potentially significant impacts related to increases in noise levels from both construction (temporary impacts) and operation (permanent impacts) of the project site.

MM NOISE-1 In order to reduce impacts related to heavy construction equipment moving and operating on site during all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of demolition, grading, and construction, prior to issuance of grading permits, mitigation measures shall be incorporated by the City of Riverside (City) as conditions on permits. Examples of measures to be required by the City are as follows:

- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.
- Construction noise reduction methods, such as shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied sensitive receptor areas, and using electric air compressors and similar power tools rather than diesel equipment, shall be used.
- During construction, stationary construction equipment shall be placed such that noise is directed away from or shielded from sensitive noise receivers.

- During construction, stockpiling and vehicle staging areas shall be located far from noise-sensitive receptors.
- The project shall be in compliance with the City's Municipal Code: Construction shall occur between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and between 8:00 a.m. and 5:00 p.m. on Saturdays. Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners and residents to contact the job superintendent.

MM NOISE-2 If surface parking or parking structures are proposed during Phase IIa, IIb, or IIc of the project, the project proponent shall retain an acoustical specialist to conduct an analysis of noise effects from the proposed parking facilities at nearby noise-sensitive land uses, and to provide mitigation measures that will reduce noise levels to below 60 A-weighted decibels (dBA) or less at the property line and will not otherwise result in the project exceeding relevant noise standards at nearby noise-sensitive land uses (e.g., recreation, residential). Examples of mitigation measures are as follows: requirement of pavement treatments to reduce or eliminate tire squeal, administrative measures such as restricted speed limits and active enforcement thereof, or restricted parking hours.

MM NOISE-3 Because heating, ventilation, and air conditioning (HVAC) equipment, boilers, and generators can generate noise that could affect surrounding sensitive receptors for all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of the project if not placed inside buildings or enclosures or otherwise shielded from receptors, and because the details, specifications, and locations of these facilities is not known yet, the project proponent shall retain an acoustical specialist to review project construction-level plans at every phase (Phase I, Phase IIa, Phase IIb, and Phase IIc) of the project to ensure that the equipment specifications and plans for HVAC, central plant, and emergency generator equipment incorporate measures, such as the specification of quieter equipment or provision of acoustical enclosures, that will reduce noise levels to below 60 dBA or less at the property line and will not otherwise result in the project exceeding relevant noise standards at nearby noise-sensitive land uses (e.g., recreation, residential). Prior to the commencement of construction for all phases (Phase I, Phase IIa, Phase IIb, and Phase IIc) of the project, the acoustical specialist shall certify in writing to the City that the equipment specifications and plans incorporate measures that will achieve the relevant noise limits.

4.9.6 Environmental Impacts After Mitigation Is Incorporated

Short-term construction noise impacts will exceed City noise standards at a few sensitive receptor locations during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project. Construction noise reductions from the measures included in **MM NOISE-1** are difficult to quantify due to the variables involved (e.g., the specific equipment types and individual equipment's condition). As discussed previously, improved mufflers can reduce exhaust noise by approximately 6 to 15 dB (Eaton 2000), and replacing a faulty or poorly fitted muffler could reduce exhaust noise by as much as 6 to 15 dB. However, using a muffler in such a way would achieve a noise reduction for the exhaust component of the equipment only, and only for the individual piece of equipment so treated. Thus the overall reduction in construction noise from using a muffler would depend to a large extent on the locations of each piece of equipment relative to the noise-sensitive receivers, which in this case generally surround the project site. Similarly, relocating a construction staging/laydown area from a southerly location on the site to a more northerly location would reduce construction noise at receivers to the south, but not by a sufficient amount so as to meet the City's noise standard of 60 dBA. For these reasons, **MM NOISE-1** would reduce construction noise levels, but since it will not completely reduce noise levels to levels below the City's standard, short-term construction impacts during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project would be considered **significant** even with mitigation incorporated. This impact will require a Statement of Overriding Considerations.

For long-term operational noise impacts, implementation of the mitigation measures in Section 4.9.5 would reduce the operational noise impacts to **less than significant**.

4.9.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

Caltrans (California Department of Transportation). 1998. *Technical Noise Supplement*. October 1998.

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4.10 Traffic

The focus of the following discussion and analysis, based on the Initial Study (IS) and the Notice of Preparation (NOP) public comment period, concerns potentially adverse impacts to transportation and traffic as a result of implementation of the Riverside Community Hospital (RCH) Specific Plan Expansion Project (project). The following discussion summarizes the Traffic Impact Analysis, as recommended by the California Department of Transportation (Caltrans), for the project that was prepared by Kimley-Horn and Associates Inc. (Kimley-Horn), January 2014. The complete report is included as Appendix I of this Draft Environmental Impact Report (EIR).

4.10.1 Setting

Existing Circulation Network

Highways

Regional access to the RCH campus is near the crossroads of three major freeway systems: SR 91, SR 60, and Interstate 215 (I-215). East of RCH is SR 91, a primary connection between Riverside and Orange/Los Angeles Counties. North of RCH is SR 60, which connects Riverside in the east to downtown Los Angeles in the west and numerous communities in between. Also to the north is I-215, which stretches from Murrieta in the south to northern San Bernardino in the north. The SR 91/SR 60/I-215 Freeway Interchange is north of RCH.

Railways

The Metrolink and Amtrak stations are located 0.7 mile east of the RCH campus and provide multimodal regional access to surrounding cities. Four rail lines traverse the City of Riverside (City): the “Inland Empire–Orange County Line” runs from San Bernardino and Oceanside; the “Orange County Line” runs from Los Angeles to Oceanside; the “91 Line” runs from Riverside to downtown Los Angeles via Fullerton and Orange County; and the “Riverside Line” runs from Riverside to Los Angeles via Ontario and Pomona.

Street Network

Brockton Avenue is a north–south four-lane undivided roadway with two travel lanes in each direction. Brockton Avenue has a right-of-way width of 88 feet with curb, gutter, and sidewalk on both sides of the road. The posted speed limit is 40 miles per hour (mph). Brockton Avenue will serve as the main access for the RCH parking structure currently under construction. On the City of Riverside Master Plan of Roadways (City of Riverside 2012a), Brockton Avenue is designated as an 88-foot Arterial (four lanes). A proposed

restriping project, separate from this project, to be located along Brockton Avenue near the project site will be addressed later in this section.

Magnolia Avenue / Market Street is a north–south four-lane divided roadway with two travel lanes in each direction, and a two-way center left-turn lane. The roadway is named Magnolia Avenue south of 14th Street, and Market Street north of 14th Street. Magnolia Avenue / Market Street has a right-of-way width of 120 feet with curb, gutter, and sidewalk on both sides of the road. The posted speed limit is 40 mph. On the City of Riverside Master Plan of Roadways, Magnolia Avenue / Market Street is designated as a 120-foot Arterial (six lanes).

University Avenue is an east–west four-lane divided roadway with two travel lanes in each direction, with a two-way left-turn-lane divider. The posted speed limit is 40 mph.

14th Street is an east–west four-lane divided roadway with two travel lanes in each direction, with a two-way center left-turn lane. The street has a right-of-way width of 88 feet with curb, gutter, and sidewalk on both sides of the road. The posted speed limit is 35 mph, with the exception of the 25 mph school zone when children are present. To the west of Brockton Avenue, 14th Street narrows to a two-lane collector. To the east of the project site, 14th Street provides access to SR 91. The SR 91 High-Occupancy Vehicle (HOV) Project is currently under construction and affects traffic flows on 14th Street. On the City of Riverside Master Plan of Roadways, 14th Street is designated as a 100-foot Arterial (four lanes).

15th Street is a two-lane east–west undivided roadway with one travel lane in each direction. The road terminates at the eastern RCH entrance. The eastern end of the roadway extends into residential development and also provides access to the Riverside City College campus. There is no posted speed limit. 15th Street is not depicted on the Master Plan of Roadways.

Tesquesquite Avenue is an east–west two-lane divided roadway that provides access to the southern portion of RCH. This entrance to the hospital is currently closed due to the construction of the parking structure discussed in the Project Description. The road terminates east of Brockton Avenue. There is no posted speed limit. Tequesquite Avenue is not depicted on the Master Plan of Roadways.

Terracina Drive is an east–west two-lane undivided roadway with one travel lane in each direction. There is no posted speed limit. Terracina Drive terminates in a T-intersection at Brockton Avenue, and continues easterly past Magnolia Avenue to provide access to Riverside City College. Terracina Drive is not depicted on the Master Plan of Roadways.

Ramona Drive is an east–west three-lane undivided roadway with one eastbound and two westbound lanes. There is no posted speed limit. On the City of Riverside Master Plan of Roadways, Ramona Drive is designated as an 88-foot Arterial (four lanes).

Transit Service

Transit service to the project area is provided by the Riverside Transit Agency (RTA). The following is a brief description of the bus routes that provide transit service on the street system surrounding the RCH campus.

Route 1 operates between the University of California at Riverside (UCR) in the City of Riverside and the West Corona Metrolink Station in the City of Corona. The route provides access to RCH via Magnolia Avenue. Route 1 operates on weekdays from 4:00 a.m. to 10:30 p.m. with 30-minute headways (headway is the time between bus arrivals) and on weekends from 5:30 a.m. to 9:30 p.m. with 30-minute headways.

Route 13 operates in the City of Riverside via Magnolia Avenue in a northeast–southwest direction. Route 13 provides service on weekdays from 4:30 a.m. to 8:30 p.m. with 45-minute headways and on weekends from 7:00 a.m. to 6:30 p.m. with 60-minute headways.

Route 14 operates between the City of Riverside and the City of Loma Linda. Route 14 provides service to the cities of Riverside, Grand Terrace, Loma Linda, and Colton. Route 14 operates on weekdays from 5:15 a.m. to 8:40 p.m. with 90-minute headways and on weekends from 7:00 a.m. to 7:45 p.m. with 90- minute headways.

Route 15 operates between the City of Riverside and the La Sierra area of the City. Route 15 starts at the Riverside Downtown Terminal and ends at the intersection of Pierce Street and Sterling Avenue. The route provides access to RCH via Magnolia Avenue. Route 15 operates on weekdays from 5:40 a.m. to 9:40 p.m. with 45-minute headways and on weekends from 7:00 a.m. to 7:45 p.m. with 60-minute headways.

Route 50 is known as the "Jury Trolley" and operates between the Riverside County Courthouse and the intersection of Magnolia Avenue and Terracina Drive. This route provides access to RCH via Magnolia Avenue. Route 50 operates Monday through Thursday only, from 7:20 to 9:00 a.m. with 13-minute headways, and from 9:01 a.m. to 5:40 p.m. with 27-minute headways.

A bus turnout serving southbound bus traffic on Magnolia Street is located on the west side of the street, south of 14th Street, immediately north of the entrance to the RCH Physician Parking Lot. The proximity of the bus pull-out to the parking lot entrance sometimes results in turning movement conflicts between buses and cars—buses sometimes pull out of the bus turnout at the same time a car is pulling into the parking lot, resulting in a close "weave" interaction between buses and cars. A diagram of the existing bus turn-out and RCH driveway layout are provided in Appendix I.

Existing Traffic Conditions

Project Study Area

The project study area was determined in accordance with the City of Riverside *Traffic Impact Analysis Preparation Guide* (2012b). The following study intersections and roadway segments were identified for evaluation. The location of the study intersections and roadway segments are shown on Figure 4.10-1. With the exception of the hospital entrances on 14th Street and on Brockton Avenue, all study intersections are signalized.

Intersections

1. Brockton Avenue and University Avenue: signalized
2. Market Street and University Avenue: signalized
3. 14th Street and Brockton Avenue: signalized
4. 14th Street and RCH Entrance: unsignalized
5. 14th Street and Magnolia Avenue / Market Street: signalized
6. 14th Street and Lime Street: signalized
7. 14th Street and Mulberry Street / SR 91 WB Ramps: signalized
8. 14th Street and SR 91 EB Ramps: signalized
9. Brockton Avenue and RCH Entrance: unsignalized
10. Magnolia Avenue and 15th Street / RCH Entrance: signalized
11. Brockton Avenue and Tequesquite Avenue: signalized
12. Brockton Avenue and Terracina Drive: signalized
13. Magnolia Avenue and Terracina Drive: signalized
14. Brockton Avenue and Ramona Drive: signalized
15. Magnolia Avenue and Ramona Drive: signalized.

Roadway Segments

1. 14th Street: west of Brockton Avenue
2. 14th Street: Brockton Avenue to Magnolia Avenue
3. 14th Street: Magnolia Avenue to Mulberry Avenue
4. Brockton Avenue: University Avenue to 14th Street

5. Brockton Avenue: 14th Street to Tequesquite Avenue
6. Brockton Avenue: Tequesquite Avenue to Ramona Drive
7. Market Street: University Avenue to 14th Street
8. Magnolia Avenue: 14th Street to 15th Street
9. Magnolia Avenue: 15th Street to Ramona Drive.

Existing morning peak period (7:00 to 9:00 a.m.) and evening peak period (4:00 to 6:00 p.m.) turning movement counts were obtained for all study intersections, and 24-hour roadway volumes were obtained for all study roadway segments. For locations affected by the ongoing freeway construction and the RCH campus related to the parking structure and new medical office building near Brockton Avenue, 2012 traffic counts were obtained from the City. In accordance with direction from City traffic engineering staff, a growth factor of 1.5% per year was applied to any traffic count more than 1 year old to "grow" the traffic volumes to 2013 levels. New traffic counts at unaffected locations were collected in May 2013 (see Appendix I). At the time of these counts, the parking structure (Building O) and the medical office building (Building P) were approved projects for the RCH campus, but were not yet completed.

The existing traffic conditions analyzed in this EIR include the current uses on the RCH campus plus the approved, and currently under construction, medical office building (Building P) and parking structure (Building O). (Note: The existing conditions evaluated in the EIR are referred to as "pre-EIR baseline" conditions in the Traffic Impact Analysis in Appendix I.) These facilities are approved and will be in place prior to the start of the project so the traffic associated with these facilities was included in the baseline/existing conditions used in the analysis herein. The traffic associated with the new Building P will be the same as that for Building N, since once Building P is essentially replacing Building N and no new trips would be expected. Once the parking structure is complete and open, some traffic patterns for existing hospital employees and visitors will shift from the current main entrance at Magnolia Avenue and 15th Street to the new parking structure entrance at Brockton Avenue and Tequesquite Avenue.

The existing lane configurations at the study intersections and the existing number of travel lanes on the roadways segments are shown on Figure 4.10-2.

Methodology

Signalized Intersections

The *Highway Capacity Manual 2010* (HCM) published by the Transportation Research Board (TRB) establishes a system whereby highway facilities are rated for their ability to process traffic

volumes. The terminology "level of service" (LOS) is used to provide a qualitative evaluation based on certain quantitative calculations, which are related to empirical values.

LOS for signalized intersections is defined in terms of average vehicle delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. Specifically, LOS criteria are stated in terms of the average control delay per vehicle for the peak 15-minute period within the hour analyzed. The average control delay includes initial deceleration delay, queue move-up time, and final acceleration time in additional to the stop delay. The criteria for the various LOS designations are summarized in Table 4.10-1.

Table 4.10-1
Level of Service Criteria for Signalized Intersections

LOS	Control Delay Per Vehicle (seconds/vehicle)	Description
A	≤ 10.0	Operations with very low delay; most vehicles do not stop at all.
B	> 10.0 and ≤ 20.0	Operations with good progression but with some restricted movement.
C	> 20.0 and ≤ 35.0	Operations where a significant number of vehicles are stopping with some backup and light congestion.
D	> 35.0 and ≤ 55.0	Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines.
E	> 55.0 and ≤ 80.0	Operations where there is significant delay, extensive queuing, and poor progression.
−F	≥ 80.0	Operations are unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.

Source: TRB 2010, Page 18-6, Exhibit 18-4.

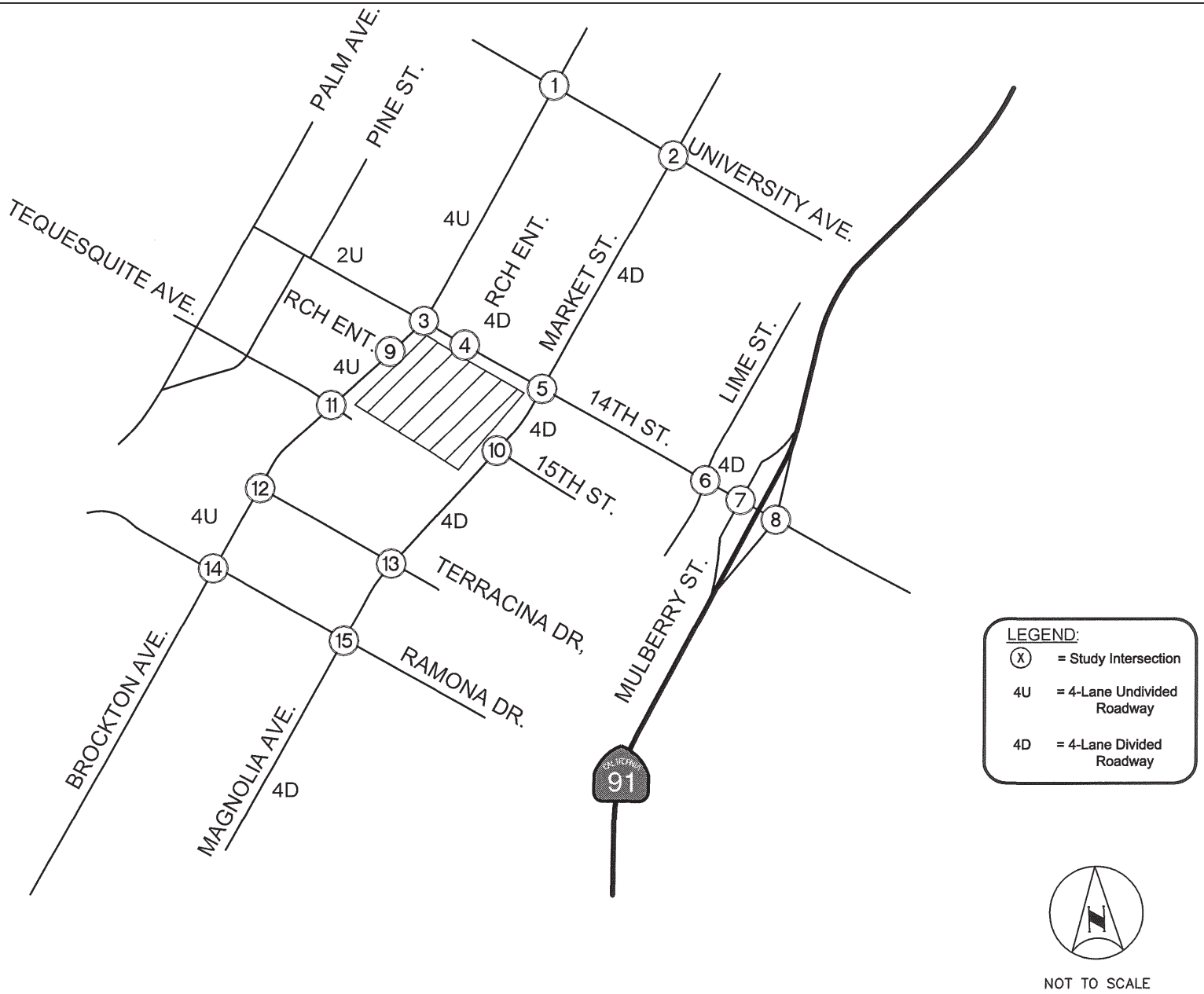
Unsignalized Intersections

The LOS for unsignalized intersections is determined by the computed or measured control delay and is defined for each minor movement. The LOS criteria for signalized intersections, as described in the 2010 HMC, are provided in Table 4.10-2.

Table 4.10-2
Level of Service Criteria for Unsignalized Intersections

LOS by Volume to Capacity Ratio		
v/c ≤ 1.0	*v/c > 1.0*	Control Delay (sec/veh)
A	F	0–10.0
B	F	> 10.0–15.0
C	F	> 15.0–25.0
D	F	> 25.0–35.0
E	F	> 35.0–50.0
−F	F	> 50.0

Source: TRB 2010, Page 19-2, Exhibit 19-1.
v/c = volume to capacity ratio; sec/veh = seconds per vehicle



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SOURCE: KIMLEY-HORN AND ASSOCIATES INC. 2013

FIGURE 4.10-1
Project Study Area

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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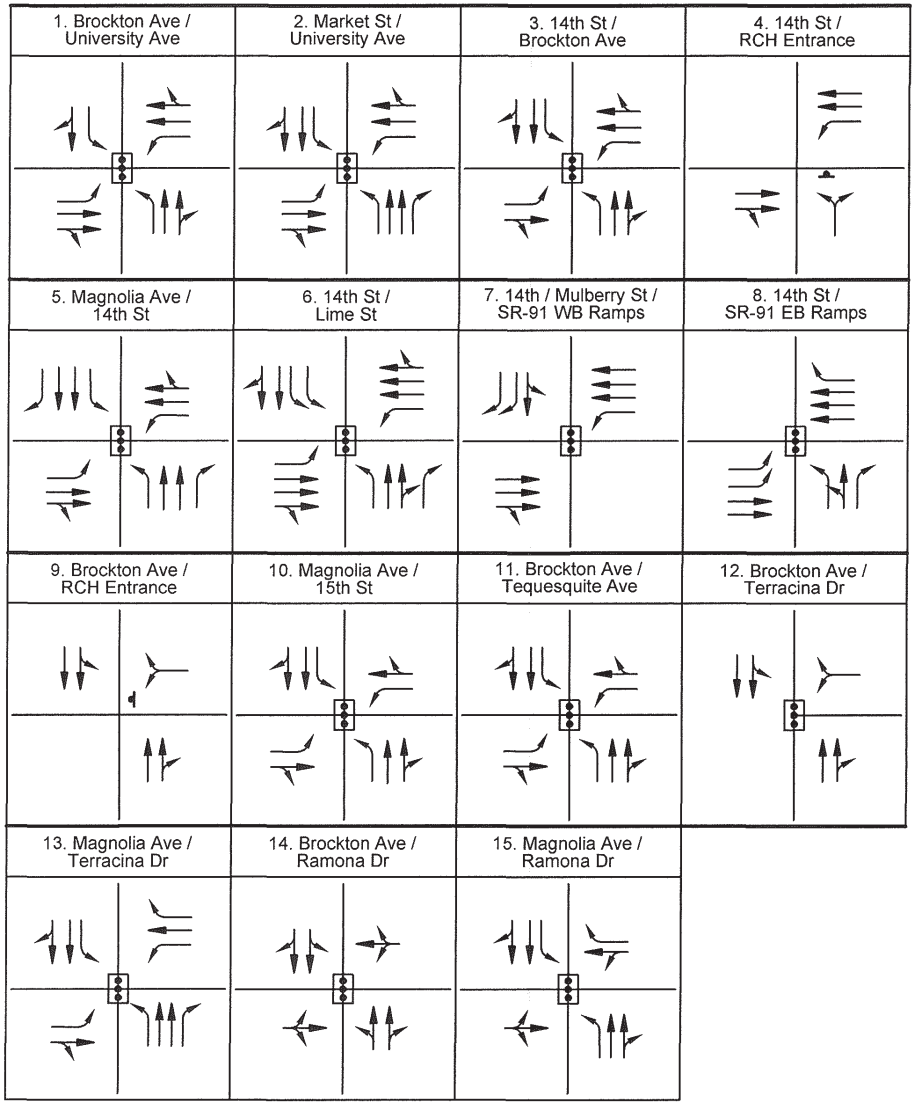

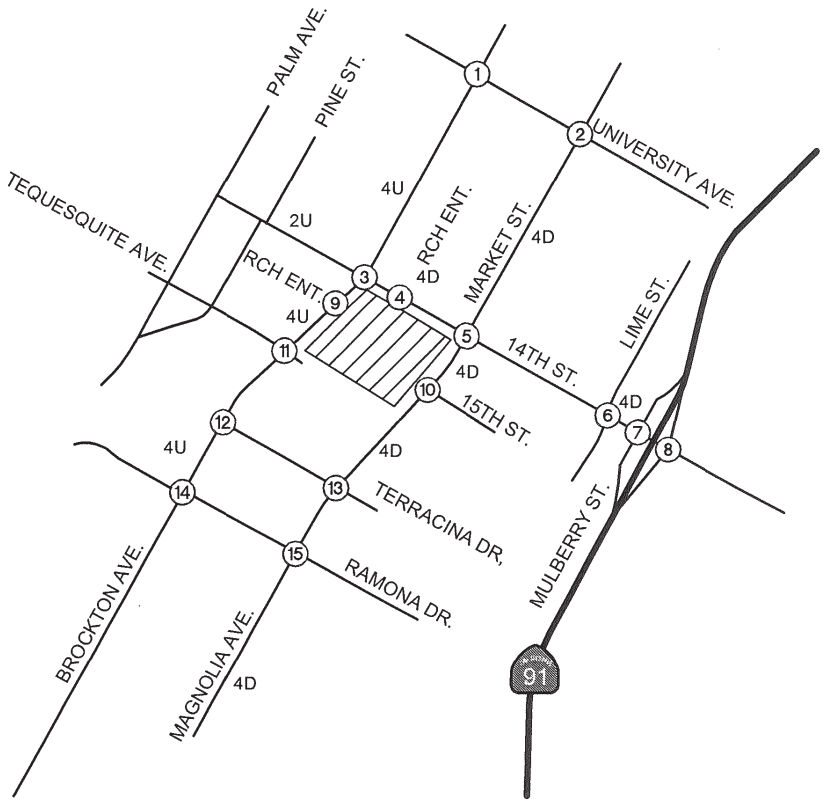

LEGEND:
- (X) = Study Intersection
- = Signal
- = Stop Sign

NOT TO SCALE

SOURCE: KIMLEY-HORN AND ASSOCIATES INC. 2013

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FIGURE 4.10-2

Existing Lane Configuration and Traffic Control

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Intersection Analysis

The analysis results for the existing conditions are shown in Table 4.10-3. Intersection LOS worksheets are provided in Appendix I. Review of Table 4.10-3 shows that, under the existing conditions, all study intersections would operate at LOS D or better during both peak periods, with the exception of the following:

9. Brockton Avenue and RCH Entrance: PM Peak Hour – LOS E.

Table 4.10-3
Existing Intersection Operations

Intersection	Control Type	Peak Hour	Existing Conditions	
			Delay	*LOS*
1. Brockton Avenue and University Avenue	Signal	a.m.	23.0	C
		p.m.	28.4	C
2. Market Street and University Avenue	Signal	a.m.	23.6	C
		p.m.	31.7	C
3. Brockton Avenue and 14th Street	Signal	a.m.	26.2	C
		p.m.	24.8	C
4. 14th Street and RCH Entrance	One-Way Stop	a.m.	18.7	C
		p.m.	12.9	B
5. 14th Street and Market Street / Magnolia Avenue	Signal	a.m.	25.8	C
		p.m.	25.1	C
6. 14th Street and Lime Street	Signal	a.m.	29.4	C
		p.m.	47.0	D
7. 14th Street and SR 91 Westbound Ramp	Signal	a.m.	19.4	B
		p.m.	22.1	C
8. 14th Street and SR 91 Eastbound Ramp	Signal	a.m.	20.5	C
		p.m.	18.8	B
9. Brockton Avenue and RCH Entrance	One-Way Stop	a.m.	27.4	D
		p.m.	46.6	E
10. Magnolia Avenue and 15th Street / RCH	Signal	a.m.	10.6	B
		p.m.	12.5	B
11. Brockton Avenue and Tequesquite Avenue	Signal	a.m.	16.1	B
		p.m.	20.2	C
12. Brockton Avenue and Terracina Drive	Signal	a.m.	5.0	A
		p.m.	3.5	A
13. Magnolia Avenue and Terracina Drive	Signal	a.m.	18.6	B
		p.m.	19.6	B
14. Brockton and Ramona Drive	Signal	a.m.	7.3	A
		p.m.	4.8	A
15. Magnolia and Ramona Drive	Signal	a.m.	17.3	B
		p.m.	11.1	B

Existing = Pre-EIR Baseline (i.e., includes medical office building and parking structure under construction) from the Kimley-Horn Traffic Impact Analysis (see Appendix I).
Notes: **Bold** values indicate intersections operating at LOS E or F.

Roadway Segment Analysis

The study roadway segments were analyzed in accordance with the analysis methodology described above. The existing conditions analysis results and LOS for the study roadway segments are presented in Table 4.10-4. As this table shows, all study roadway segments are currently operating at LOS C or better under existing conditions.

Table 4.10-4
Existing Conditions Roadway Operations

Roadway Segment	Roadway Classification	LOS E Capacity	ADT	LOS
14th Street: West of Brockton Avenue	2-Lane Collector	12,500	3,165	B
14th Street: Brockton Avenue to Magnolia Avenue	4-Lane Arterial (100 ft)	33,000	12,417	B
14th Street: Magnolia Avenue to Mulberry Avenue	4-Lane Arterial (100 ft)	33,000	29,108	C
Brockton Avenue: University Avenue to 14th Street	4-Lane Arterial (88 ft)	22,000	14,988	C
Brockton Avenue: 14th Street to Tequesquite Avenue	4-Lane Arterial (88 ft)	22,000	18,635	C
Brockton Avenue: Tequesquite Avenue to Ramona Drive	4-Lane Arterial (88 ft)	22,000	14,883	C
Market Street: University Avenue to 14th Street	4-Lane Arterial (110 ft)	33,000	24,790	B
Magnolia Avenue: 14th Street to 15th Street	4-Lane Arterial (100 ft)	33,000	27,207	C
Magnolia Avenue: 15th Street to Ramona Drive	4-Lane Arterial (100 ft)	33,000	21,252	B

Existing = Pre-EIR Baseline from Kimley-Horn Traffic Impact Analysis (see Appendix I); ADT = average daily traffic

Related Regulations

State

Sustainable Communities Strategies: Senate Bill 375 – Land Use Planning

Senate Bill (SB) 375 provides for a new planning process to coordinate land use planning and regional transportation plans and funding priorities in order to help California meet the greenhouse gas reduction goals established in Assembly Bill (AB) 32. SB 375 requires that regional transportation plans developed by metropolitan planning organizations relevant to the project site (e.g., Southern California Association of Governments (SCAG)) incorporate a "sustainable communities strategy" in their regional transportation plans that will achieve greenhouse gas emission reduction targets set by the California Air Resources Board. SB 375 also includes provisions for streamlined California Environmental Quality Act (CEQA) review for some infill projects, such as Transit-Oriented Developments. SB 375 is similar to the Regional Blueprint Planning Program established by Caltrans, which provides discretionary grants to fund regional transportation and land use plans voluntarily developed by metropolitan planning organizations working in cooperation with SCAG.

SCAG has engaged in a public involvement process for the development of its regional transportation plans and programs. As a metropolitan planning organization, SCAG is responsible for preparing and utilizing a public participation plan that is developed in consultation with all interested parties and provides reasonable opportunities for interested parties to comment on the content of SCAG's proposed Regional Transportation Plan and the Regional Transportation Improvement Program. SB 375 requires SCAG to adopt a public participation plan for development of the sustainable communities strategy and an alternative planning strategy. Further, as required by SB 375, SCAG will conduct at least two informational meetings in each county within the region for members of the board of supervisors and city councils on the sustainable communities strategy and alternative planning strategy, if any. The purpose of the meetings shall be to present a draft of the sustainable communities strategy to members of the board of supervisors and city council members in that county and to solicit and consider their input and recommendations.

Local

County of Riverside Congestion Management Program

The passage of Proposition 111 in June 1990 established a process for each metropolitan county in California that has an urbanized area with a population over 50,000 (which would include the County of Riverside) to prepare a Congestion Management Program (CMP). The CMP that was prepared by the Riverside County Transportation Commission (2011) in consultation with the County and cities in Riverside County is an effort to more directly align land use, transportation, and air quality management efforts and to promote reasonable growth management programs that effectively use statewide transportation funds while ensuring that new development pays its fair share of needed transportation improvements. Additionally, the passage of Proposition 111 provided additional transportation funding through a $0.09 per gallon increase in the state gas tax.

Although implementation of the CMP was made voluntary by the passage of AB 2419, the CMP requirement has been retained in all five urbanized counties within the SCAG region. In addition to their value as a transportation management tool, CMPs have been retained in these counties because of the federal Congestion Management System requirement that applies to all large, urban areas that are not in attainment of federal air quality standards. These counties recognize that the CMP provides a mechanism through which locally implemented programs can fulfill most aspects of a regional requirement that would otherwise have to be addressed by the regional agency (for the County of Riverside, SCAG).

The focus of the CMP is the development of an Enhanced Traffic Monitoring System in which real-time traffic count data can be accessed by the Riverside County Transportation Commission to evaluate the condition of the Congestion Management System, as well as meeting other monitoring requirements at the state and federal levels. Per the CMP-adopted LOS standard of E, when a Congestion Management System segment falls to F, a deficiency plan is required. Preparation of a deficiency plan would be the responsibility of the local agency where the deficiency is located. Other agencies identified as contributors to the deficiency would also be required to coordinate with the development of the plan. The plan must contain mitigation measures, including transportation demand management strategies and transit alternatives, and a schedule of mitigating the deficiency. To ensure that the Congestion Management System is appropriately monitored to reduce the occurrence of CMP deficiencies, it is the responsibility of local agencies, when reviewing and approving development proposals, to consider the traffic impacts on the Congestion Management System.

City of Riverside General Plan 2025

The Circulation and Community Mobility Element of the City of Riverside General Plan 2025 (GP 2025; City of Riverside 2007a, 2012a) contains goals, recommendations, objectives, guidelines, and standards for the management of circulation and mobility in the City. The following GP 2025 policies are applicable to the project and aim to minimize adverse conditions for traffic and transportation in the City.

Policy CCM-1.2: Support the addition of capacity improvements to State Route (SR) 91, SR 60, I-215, and I-15.

Policy CCM-2.2: Balance the need for free traffic flow with economic realities and environmental and aesthetic considerations, such that streets are designed to handle normal traffic flows with tolerances to allow for potential short-term delays at peak flow hours.

Policy CCM-2.3: Maintain LOS D or better on Arterial Streets wherever possible. At key locations, such as City Arterials that are used by regional freeway bypass traffic and at heavily traveled freeway interchanges, allow LOS E at peak hours as the acceptable standard on a case-by-case basis.

Policy CCM-2.4: Minimize the occurrence of streets operating at LOS “F” by building out the planned street network and by integrating land use and transportation in accordance with the General Plan principles.

Policy CCM-2.6: Consider all alternatives for increasing street capacity before widening is recommended for streets within existing neighborhoods.

Policy CCM-2.7: Limit driveway and local street access on Arterial Streets to maintain a desired quality of traffic flow. Wherever possible, consolidate driveways and implement access controls during redevelopment of adjacent parcels.

Policy CCM-2.8: Design street improvements considering the effect on aesthetic character and livability of residential neighborhoods, along with traffic engineering criteria.

Policy CCM-2.9: Design all street improvement projects in a comprehensive fashion to include consideration of street trees, pedestrian walkways, bicycle lanes, equestrian pathways, signing, lighting, noise, and air quality wherever any of these factors are applicable (City of Riverside 2007a, 2012a).

City of Riverside Level of Service Standard

The City of Riverside GP 2025, Circulation and Community Mobility Element (2007a, 2012a), allows LOS D to be used as the maximum acceptable threshold for the study intersections and roadways of Collector or higher classification, or to any local or collector street if they provide access for the project. LOS C is to be maintained on all street intersections. However, at some key locations, such as City Arterial roadways that are used as freeway bypasses by regional through traffic and at heavily traveled freeway interchanges, LOS E may be acceptable as determined on a case-by-case basis. The City also recognizes that along key freeway-feeder segments during peak commute hours, LOS F may be expected due to regional travel patterns. A higher standard, such as LOS C or better, may be adopted for Local streets in residential areas.

A significant impact at a study intersection would occur when the addition of project-related trips either causes peak hour LOS to degrade from acceptable (LOS A through D) to unacceptable levels (LOS E or F) or causes the peak hour delay to increase as shown in Table 4.10-5.

Table 4.10-5
City of Riverside Intersection Level of Service Standards

LOS	Increase in Delay
A / B	10.0 seconds
C	8.0 seconds
D	5.0 seconds
E	2.0 seconds
F	1.0 second

In order to determine the project-related impacts on the study area roadway segments, the roadway capacities shown in Table 4.10-6 are used.

Table 4.10-6
City of Riverside Roadway Capacity Standards

Roadway Classification	Number of Lanes	Two-Way Traffic Volumes (ADT)[a]		
		LOS C	*LOS D*	*LOS E*
Local	2	2,500–2,799	2,800–3,099	3,100+
Collector (66 ft or 80 ft)	2	9,9000–11,199	11,200–12,499	12,500+
Arterial[b]	2	14,400–16,199	16,200–17,999	18,000+
Arterial (88 ft)	4	16,800–19,399	19,400–21,199	22,000+
Arterial (100 ft)	4	26,200–29,599	29,600–32,999	33,000+
Arterial (120 ft)	6	38,700–44,099	44,100–49,499	49,500+
Arterial (144 ft)	8	50,600–57,799	57,800–64,999	65,000+

Source: City of Riverside 2012a, Exhibit D.
ADT = average daily traffic
Notes: All capacity figures are based on optimum conditions and are intended as guidelines for planning purposes only.
[a] Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables.
[b] Two-lane roadways designed as future Arterials that conform to Arterial design standards for vertical and horizontal alignments are analyzed as Arterials.

4.10.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), and will be used to determine the significance of potential traffic and circulation impacts. Impacts to traffic and circulation would be significant if the project would:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

4.10.3 Project Elements That Can Reduce Impacts

Chapter 5, Circulation, of the RCH Specific Plan (Dudek n.d.) includes the following traffic demand management features to encourage multimodal transportation and reduce reliance on automobiles:

- The RCH Specific Plan Area is designed to encourage pedestrian activity to and from the campus, as well as internally between campus buildings.
- RCH will continue to implement two ride-sharing rewards programs in coordination with Inland Empire Transit. Both programs are promoted through informational flyers and at new hire orientation. A traffic demand management coordinator is available on the campus to facilitate the distribution of information and make sure it remains current.
- Preferential parking will be provided for carpool vehicles.
- Bicycle parking and shower facilities will be provided for employees.
- Local transportation management and roadway improvements will occur.
- On-site amenities will be provided, such as cafeterias, restaurants, automated teller machines and other services, that would eliminate the need for additional trips (City of Riverside 2007b, Chapter 19.880).

4.10.4 Environmental Impacts Before Mitigation

Threshold: Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Trip Distribution

Project trip distribution and assignment assumptions for the project were developed in consultation with the City's traffic engineering staff. The distribution and assignment assumptions took into account existing traffic patterns for the current development on the RCH campus as well as the approved and proposed changes to the project site. Based on the project trip distribution, AM and PM peak hour project trips were assigned through the study intersections for Phase I and Phases IIa, IIb, and IIc of the project.

Phase I

The trips expected to be generated by the project were calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition (2012). Daily, AM peak hour, and PM peak hour trip generation estimates for Phase I of the project are summarized in Table 4.10-7. Phase I assumes the construction of a new hospital bed tower with 189 beds, to bring the total bed count on the RCH campus to 562 beds.

Table 4.10-7
Trip Generation – Phase I

Land Use	ITE Code	Trips Per	Trip Generation Rates*						
				AM Peak Hour			*PM Peak Hour*		
			Daily	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Hospital –trips per bed	610	Beds	12.940	0.950	0.370	1.320	0.469	0.951	1.420
Land Use	**Quantity**	**Trips Per**	**Trip Generation Estimates**						
			Daily	*AM Peak Hour*			*PM Peak Hour*		
				In	*Out*	*Total*	*In*	*Out*	*Total*
Hospital – new bed tower	189	Beds	2,446	180	70	250	89	180	269
Total Phase I Trips			2,446	180	70	250	89	180	269

*The ITE Trip Generation Manual provides trip rates for the independent variables for "Beds" and "1,000 square feet." For uses associated with providing direct support for the hospital bed tower, the trip rates for "Beds" were used. For the remaining hospital areas associated with other site functions not directly related to the hospital beds, the trip rates for "1,000 square feet" were used.

Phase I is estimated to generate a total of 2,446 daily cumulative trips with 250 trips during the AM peak hour (180 inbound / 70 outbound) and 269 trips during the PM peak hour (89 inbound / 180 outbound).

Phases IIa, IIb, and IIc

Trip generation estimates for Phases IIa, IIb, and IIc are summarized in Table 4.10-8. A breakdown of project trip generation for all three phases of Phase II is provided in Appendix I. Phases IIa, IIb, and IIc assume a total bed count of 600 beds and the addition of a 100,000-square-foot medical office building. Buildings B and D will be repurposed as one or more medical campus functions, such as hospital administrative support for the bed towers, skilled nursing, UCR resident facilities, or outpatient facilities. The trip generation estimates for Phases IIa, IIb, and IIc include an assumption for internal capture of trips within the RCH campus. Internal capture represents trips between the various campus facilities that are "captured" on site (and therefore do not impact the off-site street system) as medical staff, resident physicians, and patients travel between the hospital, outpatient, medical office, and lab facilities on the site.

Table 4.10-8
Trip Generation – Phases IIa, IIb, and IIc

Land Use	ITE Code	Trips Per	Trip Generation Rates						
			Daily	*AM Peak Hour*			*PM Peak Hour*		
				In	*Out*	*Total*	*In*	*Out*	*Total*
Hospital – trips per KSF	610-4	KSF	13.22	0.599	0.352	0.950	0.353	0.577	0.930
Hospital – trips per bed	610-4	Bed	12.940	0.950	0.370	1.320	0.469	0.951	1.420
Medical–dental office building	720	KSF	36.13	1.89	0.50	2.39	1.00	2.57	3.57
Land Use	**Quantity**	**Trips Per**	**Trip Generation Estimates**						
			Daily	*AM Peak Hour*			*PM Peak Hour*		
				In	*Out*	*Total*	*In*	*Out*	*Total*
Hospital – new bed tower	377	Bed	4,878	358	139	497	177	359	536
Hospital – Building B and D beds relocated to tower	−339	Bed	−4,387	−322	−125	−447	−159	−322	−481
Hospital – Building A to be demolished	−58.705	KSF	−776	−35	−21	−56	−21	−34	−55
Medical–dental office building	100.0	KSF	3,613	189	50	239	100	257	357
Hospital – Building B and D reuse[a]	187.53	KSF	2,479	112	66	178	66	108	174
Total Phases IIa, IIb, and IIc Trips			5,807	302	109	411	163	368	531
Phase I Trips			2,446	180	70	250	89	180	269
Total Phases I, IIa, IIb, and IIc Trips			8,253	482	179	661	252	548	800
Internal Capture[b]	30%		2,476	145	54	199	76	164	240
Net New Project Trips			5,777	337	125	462	176	384	560

KSF = thousand square feet
Notes: Trips for the hospital administrative support use (29,941 square feet) are assumed to be included in the bed tower per-bed trips. Trips for the remaining uses are calculated based on the hospital per-KSF rates.

[a] Buildings B and D will be reused as one or more medical campus functions, such as hospital administrative support for the bed towers, skilled nursing, UCR resident facilities, outpatient, etc.

[b] Internal capture trips are trips captured on site as medical staff, resident physicians, students, and patients circulate on site between the hospital, outpatient, medical offices, lab facilities, and learning facilities on the campus. ITE trip generation rates are based on surveys of stand-alone uses not located in a medical campus environment. Based on conversations with hospital representatives, a substantial number of trip purposes for each of the individual uses are and will continue to be captured on site as a result of the proximity of buildings and the walkability of the campus. As discussed with hospital representatives and City staff, a 30% on-site capture was determined to be reasonable and conservative.

Phases IIa, IIb, and IIc are estimated to generate a total of 5,807 daily cumulative trips with 411 trips during the AM peak hour (302 inbound / 109 outbound) and 531 trips during the PM peak hour (163 inbound / 368 outbound).

Existing Plus Phase I Traffic

Intersection Analysis – Existing Plus Phase I Traffic

The peak hour intersection LOS under Existing Plus Phase I conditions is provided in Table 4.10-9, Existing Plus Phase I Intersection Operations. As seen in Table 4.10-9 and based on the City of Riverside significance criteria described earlier in this report (i.e., can exceed the LOS

standard, and exceed the delay threshold), the addition of Phase I project-related traffic would cause a **significant impact** at the following intersections:

3. Brockton Avenue and 14th Street: AM Peak Hour – LOS C; 8.2 second delay
4. 14th Street and RCH Entrance: PM Peak Hour – LOS D, 12.5 second delay
5. 14th Street and Magnolia Avenue / Market Street: PM Peak Hour – LOS D, 13.1 second delay
7. SR 91 WB Ramps
9. Brockton Avenue and RCH Entrance: AM Peak Hour – LOS F, 25.9 second delay; PM Peak Hour – LOS F, 240.3 second delay

Roadway Segment Analysis – Existing Plus Phase I Traffic

The peak hour street segment LOS under Existing Plus Phase I conditions is provided in Table 4.10-10, Existing Plus Phase I Street Segment Operations. As seen in Table 4.10-10, with the addition of Phase I traffic, all study area segments are calculated to operate at LOS D or better under Existing Plus Phase I conditions.

Table 4.10-9
Existing Plus Phase I Intersection Operations

Intersection	Control Type	Peak Hour	Existing Conditions		Existing Plus Phase I Conditions		Difference in Delay (sec)	Exceed Threshold?
			Delay	*LOS*	*Delay*	*LOS*		
1. Brockton Avenue and University Avenue	Signal	a.m.	23.0	C	23.9	C	0.9	No
		p.m.	28.4	C	29.5	C	1.1	No
2. Market Street and University Avenue	Signal	a.m.	23.6	C	24.5	C	0.9	No
		p.m.	31.7	C	32.5	C	0.8	No
3. Brockton Avenue and 14th Street	Signal	a.m.	26.2	C	34.4	C	8.2	No
		p.m.	24.8	C	28.6	C	3.8	No
4. 14th Street and RCH Entrance	One-way stop	a.m.	18.7	C	21.8	C	3.1	No
		p.m.	12.9	B	25.4	D	12.5	Yes
5. 14th Street and Market Street / Magnolia Avenue	Signal	a.m.	25.8	C	26.6	C	0.8	No
		p.m.	25.1	C	38.2	D	13.1	Yes
6. 14th Street and Lime Street	Signal	a.m.	29.4	C	30.0	C	0.6	No
		p.m.	47.0	D	49.1	D	2.1	No
7. 14th Street and SR 91 Westbound Ramp	Signal	a.m.	19.4	B	20.9	B	1.5	No
		p.m.	22.1	C	30.5	C	8.4	No
8. 14th Street and SR 91 Eastbound Ramp	Signal	a.m.	20.5	C	20.8	C	0.3	No
		p.m.	18.8	B	18.9	B	0.1	No

Table 4.10-9
Existing Plus Phase I Intersection Operations

Intersection	Control Type	Peak Hour	Existing Conditions		Existing Plus Phase I Conditions		Difference in Delay (sec)	Exceed Threshold?
			Delay	*LOS*	*Delay*	*LOS*		
9. Brockton Avenue and RCH Entrance	One-way stop	a.m.	27.4	D	53.3	F	25.9	Yes
		p.m.	46.4	E	286.7	F	240.3	Yes
10. Magnolia Avenue and 15th Street / RCH	Signal	a.m.	10.6	B	11.1	B	0.5	No
		p.m.	12.5	B	13.5	B	1.0	No
11. Brockton Avenue and Tequesquite Avenue	Signal	a.m.	16.1	B	18.8	B	2.7	No
		p.m.	20.2	C	21.0	C	0.8	No
12. Brockton Avenue and Terracina Drive	Signal	a.m.	0.9	A	0.8	A	−0.1	No
		p.m.	0.9	A	0.9	A	0.0	No
13. Magnolia Avenue and Terracina Drive	Signal	a.m.	18.6	B	18.7	B	0.1	No
		p.m.	19.6	B	19.7	B	0.1	No
14. Brockton and Ramona Drive	Signal	a.m.	7.3	A	7.6	A	0.3	No
		p.m.	4.8	A	5.0	A	0.2	No
15. Magnolia and Ramona Drive	Signal	a.m.	17.3	B	17.6	B	0.3	No
		p.m.	11.1	B	11.3	B	0.2	No

Existing = Pre-EIR Baseline from Kimley-Horn 2014; sec = seconds
Notes: **Bold** values indicate intersections operating at LOS E or F. **Bold** and shaded results indicate significant impacts.

Table 4.10-10
Existing Plus Phase I Roadway Operations

Roadway Segment	Existing Roadway Classification	LOS E Capacity	Existing		Existing Plus Phase I		Phase I Traffic ADT	Exceed Threshold?
			ADT	*LOS*	*ADT*	*LOS*		
14th Street: West of Brockton Avenue	2-Lane Collector	12,500	3,165	B	3,238	B	73	No
14th Street: Brockton Avenue to Magnolia Avenue	4-Lane Arterial (100 ft)	33,000	12,417	B	13,444	B	1,027	No
14th Street: Magnolia Avenue to Mulberry Avenue	4-Lane Arterial (100 ft)	33,000	29,108	C	29,720	D	612	No
Brockton Avenue: University Avenue to 14th Street	4-Lane Arterial (88 ft)	22,000	14,988	C	15,355	C	367	No
Brockton Avenue: 14th Street to Tequesquite Avenue	4-Lane Arterial (88 ft)	22,000	18,635	C	19,736	D	1,101	No
Brockton Avenue: Tequesquite Avenue to Ramona Drive	4-Lane Arterial (88 ft)	22,000	14,883	C	15,495	C	612	No
Market Street: University Avenue to 14th Street	4-Lane Arterial (110 ft)	33,000	24,790	B	25,279	B	489	No
Magnolia Avenue: 14th Street to 15th Street	4-Lane Arterial (100 ft)	33,000	27,207	C	27,403	C	196	No

Table 4.10-10
Existing Plus Phase I Roadway Operations

Roadway Segment	Existing Roadway Classification	LOS E Capacity	Existing		Existing Plus Phase I		Phase I Traffic ADT	Exceed Threshold?
			ADT	*LOS*	*ADT*	*LOS*		
Magnolia Avenue: 15th Street to Ramona Drive	4-Lane Arterial (100 ft)	33,000	21,252	B	21,374	B	122	No

Existing = Pre-EIR Baseline from Kimley-Horn 2014.

Future Conditions

The traffic-related impacts of the project are evaluated in two project phases:

- Phase I – Opening Year 2014
- Phase II – Buildout (includes Phases IIa, IIb, and IIc).

The analysis methodology, assumptions, and results are summarized in the following subsections.

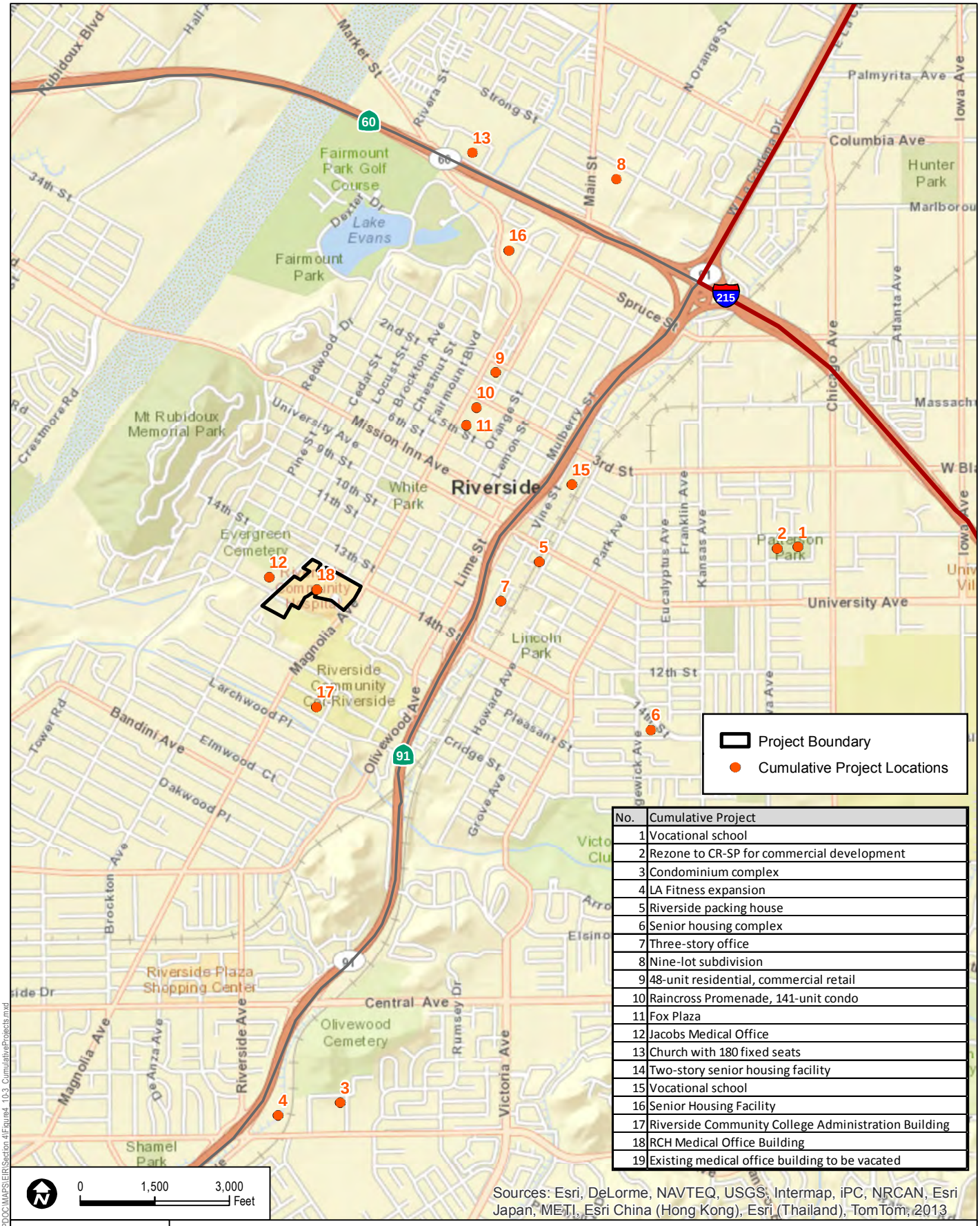
Year 2014 Cumulative Conditions Plus Phase I

In order to account for other unforeseen cumulative projects and regional traffic growth, cumulative project information was obtained from the City of Riverside. The existing plus cumulative projects traffic volumes were obtained by adding the existing traffic volumes, plus an annual growth rate of 0.5% per year until the opening year (2014), plus cumulative projects traffic. The list of cumulative projects and a map showing the location of these projects is provided in Appendix I. Figure 4.10-3, Cumulative Projects Map, depicts the locations of these projects in relation to the project. Phase I traffic volumes were added to obtain the Year 2014 Cumulative Conditions with Phase I volumes.

Intersection Analysis – Year 2014 Cumulative Conditions Plus Phase I

Based on the City of Riverside significance criteria described in the Methodology subsection of this Traffic section (i.e., may not exceed the LOS standard, but exceeds the delay threshold), the addition of project-related traffic would cause a **significant impact** at the following intersections:

3. Brockton Avenue and 14th Street: PM Peak Hour – LOS D, 9.9-second delay
4. 14th Street and the RCH Entrance: PM Peak Hour – LOS D, 16.5-second delay
5. 14th Street and Magnolia Avenue / Market Street: PM Peak Hour – LOS D, 5.0-second delay
9. Brockton Avenue and the RCH Entrance: AM and PM Peak Hour – LOS F, 51.2-second and 702.8-second delay, respectively.



No.	Cumulative Project
1	Vocational school
2	Rezone to CR-SP for commercial development
3	Condominium complex
4	LA Fitness expansion
5	Riverside packing house
6	Senior housing complex
7	Three-story office
8	Nine-lot subdivision
9	48-unit residential, commercial retail
10	Raincross Promenade, 141-unit condo
11	Fox Plaza
12	Jacobs Medical Office
13	Church with 180 fixed seats
14	Two-story senior housing facility
15	Vocational school
16	Senior Housing Facility
17	Riverside Community College Administration Building
18	RCH Medical Office Building
19	Existing medical office building to be vacated

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

DUDEK

SOURCE: ESRI 2013, Kimley-Horn and Associates

FIGURE 4.10-3

Cumulative Projects Map

7824-01

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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Roadway Segment Analysis – Year 2014 Cumulative Conditions Plus Phase I

The Year 2014 Cumulative Conditions Plus Phase I analysis results and LOS for the study roadway segments are presented in Table 4.10-12. As shown in this table, all study roadway segments would operate at LOS D or better under Year 2014 Cumulative Conditions Plus Phase I.

Table 4.10-11
Year 2014 Cumulative Conditions Plus Phase I Intersection Operations

Intersection	Control Type	Peak Hour	2014 Cumulative		2014 Cumulative Plus Phase I		Difference in Delay (sec)	Exceed Threshold?	Applicable Mitigation Measure
			Delay	*LOS*	*Delay*	*LOS*			
1. Brockton Avenue and University Avenue	Signal	a.m.	23.8	C	24.8	C	1.0	No	
		p.m.	30.8	C	32.0	C	1.2	No	
2. Market Street and University Avenue	Signal	a.m.	26.7	C	27.9	C	1.2	No	
		p.m.	40.0	D	41.6	D	1.6	No	
3. Brockton Avenue and 14th Street	Signal	a.m.	31.8	C	36.5	D	4.7	No	
		p.m.	34.7	C	44.6	D	9.9	Yes	MM TRA-4
4. 14th Street and RCH Entrance	One-Way Stop	a.m.	19.2	C	22.6	C	3.4	No	
		p.m.	13.9	B	30.4	D	16.5	Yes	None feasible
5. 14th Street and Market Street / Magnolia Avenue	Signal	a.m.	26.7	C	27.6	C	0.9	No	
		p.m.	44.1	D	49.1	D	5.0	Yes	MM TRA-5
6. 14th Street and Lime Street	Signal	a.m.	29.8	C	30.4	C	0.6	No	
		p.m.	48.1	D	50.2	D	2.1	No	
7. 14th Street and SR 91 Westbound Ramp	Signal	a.m.	19.6	B	21.2	C	1.6	No	
		p.m.	22.5	C	24.4	C	1.9	No	
8. 14th Street and SR 91 Eastbound Ramp	Signal	a.m.	20.7	C	21.0	C	0.3	No	
		p.m.	18.9	B	19.1	B	0.2	No	
9. Brockton Avenue and RCH Entrance	One-Way Stop	a.m.	33.4	D	84.6	F	51.2	Yes	MM TRA-3
		p.m.	92.6	F	795.4	F	702.8	Yes	MM TRA-3
10. Magnolia Avenue and 15th Street / RCH	Signal	a.m.	10.9	B	11.4	B	0.5	No	
		p.m.	13.0	B	14.1	B	1.1	No	
11. Brockton Avenue and Tequesquite Avenue	Signal	a.m.	16.6	B	19.5	B	2.9	No	
		p.m.	21.5	C	22.3	C	0.8	No	
12. Brockton Avenue and Terracina Drive	Signal	a.m.	5.0	A	5.2	A	0.2	No	
		p.m.	3.5	A	3.6	A	0.1	No	
13. Magnolia Avenue and Terracina Drive	Signal	a.m.	18.8	B	18.9	B	0.1	No	
		p.m.	20.1	C	20.1	C	0.0	No	

Table 4.10-11
Year 2014 Cumulative Conditions Plus Phase I Intersection Operations

Intersection	Control Type	Peak Hour	2014 Cumulative		2014 Cumulative Plus Phase I		Difference in Delay (sec)	Exceed Threshold?	Applicable Mitigation Measure
			Delay	*LOS*	*Delay*	*LOS*			
14. Brockton and Ramona Drive	Signal	a.m.	7.4	A	7.8	A	0.4	No	
		p.m.	5.0	A	5.2	A	0.2	No	
15. Magnolia and Ramona Drive	Signal	a.m.	17.9	B	18.2	B	0.3	No	
		p.m.	11.5	B	11.8	B	0.3	No	

sec = seconds
Notes: **Bold** values indicate intersections operating at LOS E or F. **Bold** and shaded results indicate significant impacts.

Table 4.10-12
Year 2014 Cumulative Conditions Plus Phase I Roadway Operations

Roadway Segment	Existing Roadway Classification	LOS E Capacity	2014 Cumulative		2014 Cumulative Plus Phase I		Project Traffic	Exceed Threshold?
			ADT	*LOS*	*ADT*	*LOS*		
14th Street: West of Brockton Avenue	2-Lane Collector	12,500	3,167	B	3,240	B	73	No
14th Street: Brockton Avenue to Magnolia Avenue	4-Lane Arterial (100 ft)	33,000	13,293	B	14,320	B	1,027	No
14th Street: Magnolia Avenue to Mulberry Avenue	4-Lane Arterial (100 ft)	33,000	29,952	D	30,564	D	612	No
Brockton Avenue: University Avenue to 14th Street	4-Lane Arterial (88 ft)	22,000	15,182	C	15,549	C	367	No
Brockton Avenue: 14th Street to Tequesquite Avenue	4-Lane Arterial (88 ft)	22,000	20,327	D	21,428	D	1,101	No
Brockton Avenue: Tequesquite Avenue to Ramona Drive	4-Lane Arterial (88 ft)	22,000	15,092	C	15,704	C	612	No
Market Street: University Avenue to 14th Street	4-Lane Arterial (110 ft)	33,000	25,952	C	26,441	C	489	No
Magnolia Avenue: 14th Street to 15th Street	4-Lane Arterial (100 ft)	33,000	28,103	C	28,299	C	196	No
Magnolia Avenue: 15th Street to Ramona Drive	4-Lane Arterial (100 ft)	33,000	22,144	B	22,266	B	122	No

Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc (Buildout)

Year 2035 Cumulative Conditions peak hour traffic forecasts were developed using forecast volumes from the Riverside Traffic Analysis Model (RIVTAM). RIVTAM link approach volumes were provided for Base Year 2007 and Buildout Year 2035 (note: Year 2035 was modeled as the project buildout year because that is the farthest out date available to model in RIVTAM, but this represents the GP 2025 buildout). Peak hour turning movement volumes for Year 2035 Cumulative Conditions were developed from these RIVTAM approach forecasts using the B-Turns software, developed by the Federal Highway Administration. Phases IIa, IIb, and IIc traffic volumes were added to obtain the Year 2035 Cumulative Conditions with Phases IIa, IIb, and IIc volumes.

Intersection Analysis – Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc

Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc peak hour intersection operations are summarized on Table 4.10-13. With the addition of project traffic, the following study intersections would operate at either an unacceptable LOS or an unacceptable delay, which would result in **significant impacts**:

3. Brockton Avenue and 14th Street: AM Peak Hour – LOS D, 14.6-second delay
4. 14th Street and RCH Entrance: PM Peak Hour – LOS C, 9.4-second delay
5. 14th Street and Magnolia Avenue / Market Street: PM Peak Hour – LOS E, 6.1-second delay
6. 14th Street and Lime Street: PM Peak Hour – LOS F, 6.0-second delay
9. Brockton Avenue and RCH Entrance: AM Peak Hour – LOS D, 7.3-second delay; PM Peak Hour – LOS F, 219.6-second delay.

Roadway Segment Analysis – Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc

Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc analysis results and LOS for the study roadway segments are presented in Table 4.10-14. As shown in this table, with the addition of Phase IIa, IIb, and IIc traffic, the following roadway segments would operate at a deficient LOS and would result in **significant impacts**:

- 14th Street: Magnolia Avenue / Market Street to Mulberry Avenue – LOS F
- Brockton Avenue: 14th Street to Tequesquite Avenue – LOS F
- Brockton Avenue: Tequesquite Avenue to Ramona Drive – LOS F.

Table 4.10-13
Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc Intersection Operations

Intersection	Control Type	Peak Hour	2035 Cumulative		2035 Cumulative Plus Phase II		Difference in Delay (sec)	Exceed Threshold?	Applicable Mitigation Measure
			Delay	*LOS*	*Delay*	*LOS*			
1. Brockton Avenue and University Avenue	Signal	a.m.	20.4	C	22.2	C	1.8	No	
		p.m.	44.2	D	48.4	D	4.2	No	
2. Market Street and University Avenue	Signal	a.m.	21.8	C	23.1	C	1.3	No	
		p.m.	34.7	C	35.9	D	1.2	No	
3. Brockton Avenue and 14th Street	Signal	a.m.	22.6	C	28.4	C	5.8	No	
		p.m.	37.9	D	52.5	D	14.6	Yes	MM TRA-4
4. 14th Street and RCH Entrance	One-way stop	a.m.	13.7	B	15.4	C	1.7	No	
		p.m.	13.7	B	23.1	C	9.4	Yes	None feasible
5. 14th Street and Magnolia Avenue / Market Street	Signal	a.m.	30.9	C	33.0	C	2.1	No	
		p.m.	55.5	E	61.6	E	6.1	Yes	MM TRA-5
6. 14th Street and Lime Street	Signal	a.m.	60.1	E	60.6	E	0.5	No	
		p.m.	217.5	F	223.5	F	6.0	Yes	MM TRA-6
7. 14th Street and SR 91 Westbound Ramp	Signal	a.m.	17.7	B	19.3	B	1.6	No	
		p.m.	30.8	C	38.4	D	7.6	No	
8. 14th Street and SR 91 Eastbound Ramp	Signal	a.m.	15.9	B	15.9	B	0.0	No	
		p.m.	24.8	C	26.9	C	2.1	No	
9. Brockton Avenue and RCH Entrance	One-way stop	a.m.	18.5	C	25.8	D	7.3	Yes	MM TRA-3
		p.m.	48.6	E	268.2	F	219.6	Yes	MM TRA-3
10. Magnolia Avenue and 15th Street / RCH	Signal	a.m.	10.0	B	10.5	B	0.5	No	
		p.m.	42.6	D	46.8	D	4.2	No	
11. Brockton Avenue and Tequesquite Avenue	Signal	a.m.	11.2	B	13.5	B	2.3	No	
		p.m.	18.1	B	22.6	C	4.5	No	
12. Brockton Avenue and Terracina Drive	Signal	a.m.	4.8	A	5.0	A	0.2	No	
		p.m.	2.9	A	3.1	A	0.2	No	
13. Magnolia Avenue and Terracina Drive	Signal	a.m.	17.9	B	18.1	B	0.2	No	
		p.m.	20.1	C	20.2	C	0.1	No	
14. Brockton and Ramona Drive	Signal	a.m.	5.1	A	5.3	A	0.2	No	
		p.m.	5.3	A	6.3	A	1.0	No	
15. Magnolia and Ramona Drive	Signal	a.m.	12.1	B	12.3	B	0.2	No	
		p.m.	23.0	C	23.1	C	0.1	No	

sec = seconds
Notes: **Bold** values indicate intersections operating at LOS E or F. **Bold** and shaded results indicate significant impacts.

Table 4.10-14
Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc Roadway Operations

Roadway Segment	Existing Roadway Classification	LOS E Capacity	2035 Cumulative		2035 Cumulative Plus Phase II		Project Traffic	Impact	Applicable Mitigation Measure
			ADT	*LOS*	*ADT*	*LOS*			
14th Street: West of Brockton Avenue	2-Lane Collector	12,500	351	B	524	B	173	No	
14th Street: Brockton Avenue to Magnolia Avenue	4-Lane Arterial (100 ft)	33,000	18,748	B	21,174	B	2,426	No	
14th Street: Magnolia Avenue to Mulberry Avenue	4-Lane Arterial (100 ft)	33,000	37,137	F	38,581	F	1,444	Yes	None feasible
Brockton Avenue: University Avenue to 14th Street	4-Lane Arterial (88 ft)	22,000	17,297	C	18,164	C	867	No	
Brockton Avenue: 14th Street to Tequesquite Avenue	4-Lane Arterial (88 ft)	22,000	28,454	F	31,054	F	2,600	Yes	MM TRA-8
Brockton Avenue: Tequesquite Avenue to Ramona Drive	4-Lane Arterial (88 ft)	22,000	20,773	D	22,217	F	1,444	Yes	MM TRA-7
Market Street: University Avenue to 14th Street	4-Lane Arterial (110 ft)	33,000	23,159	B	24,314	B	1,155	No	
Magnolia Avenue: 14th Street to 15th Street	4-Lane Arterial (100 ft)	33,000	29,671	D	30,133	D	462	No	
Magnolia Avenue: 15th Street to Ramona Drive	4-Lane Arterial (100 ft)	33,000	30,781	D	31,070	D	289	No	

Notes: **Bold** values indicate intersections operating at LOS E or F. **Bold** and shaded results indicate project significant impact.

Therefore, based on the above analysis, there will be significant impacts from Phases I, IIa, IIb, and IIc related to traffic affecting the LOS at certain intersections and roadway segments within the study area, as discussed above. Given these significant impacts, mitigation measures **MM TRA-1** through **MM TRA-8** have been incorporated into the project. Based on the mitigation measures being incorporated, the following intersections would have **less than significant impacts with mitigation incorporated**:

Phase I

3. Brockton Avenue and 14th Street (**MM TRA-1**)
5. 14th Street and Magnolia Avenue / Market Street (**MM TRA-2**)
9. Brockton Avenue and RCH Entrance (**MM TRA-3**).

Phases IIa, IIb, and IIc

3. Brockton Avenue and 14th Street (**MM TRA-4**)
5. 14th Street and Magnolia Avenue / Market Street (**MM TRA-5**)
6. 14th Street and Lime Street (**MM TRA-6**)
9. Brockton Avenue and RCH Entrance (**MM TRA-3**).

Impacts to the intersection of 14th Street and RCH Entrance during Phases I, IIa, IIb, andIIc would remain **significant.** Although the evening peak hour LOS D is an acceptable level of service D during Phase I and LOS C during Phases IIa, IIb, and IIc is acceptable by the City's impact significance standard, the increase in delay at this intersection is considered significant. This intersection does not warrant a signal based on the signal warrant analysis. The backup as a result of the delay of this intersection will be related to outbound traffic and will occur on RCH property, not within City streets. Therefore, although there is a delay, this delay does not warrant circulation revisions on the site to accommodate the traffic that may use this entrance. For these reasons, the project will have a significant delay based on the City's thresholds and no improvements or feasible mitigation measures will be proposed that will address this impact. The impact at 14th Street and RCH Entrance will require a Statement of Overriding Considerations. The following roadway segments were found to have impacts that are **significant, but with mitigation can be reduced to less than significant:**

- Brockton Avenue: 14th Street to Tequesquite Avenue – LOS F (**MM TRA-8**)
- Brockton Avenue: Tequesquite Avenue to Ramona Drive – LOS F (**MM TRA-7**).

The roadway segment of 14th Street from Magnolia Avenue / Market Street to Mulberry Avenue will operate at a LOS F during Phases IIa, IIb, and IIc. Because 14th Street at this segment is already built out to its ultimate GP 2025 configurations, and due to historic structures in the way of any further widening beyond what is in the GP 2025, the City does not plan to widen 14th Street at this intersection. Therefore, since widening cannot occur, which would be the only feasible measure to address the LOS on this roadway segment, impacts will remain significant with no feasible mitigation measures. The impact to 14th Street from Magnolia Avenue / Market Street to Mulberry Avenue will require a Statement of Overriding Considerations.

Brockton Avenue Restriping Project

The City of Riverside has proposed to implement changes along Brockton Avenue, known as the Brockton Avenue Restriping Project, as a separate and unrelated project to the RCH Specific Plan Expansion Project. Because the Brockton Avenue Restriping Project was proposed during the time the analysis for the RCH SP was underway, the RCH Traffic Impact

Analysis (Appendix I) provided an analysis of impacts to the RCH project study intersections should the Brockton Avenue Restriping Project be implemented by the City prior to the RCH project implementation. The intent of the analysis for the Brockton Avenue Restriping Project condition was so that it could be seen what the LOS might be with the project incorporated, should the City decide to move forward with the Brockton Avenue Restriping Project.

The City's project would involve restriping portions of Brockton Avenue between Mission Inn Avenue and 14th Street and then between Tequesquite Avenue and Beatty Drive to convert Brockton Avenue from a four-lane undivided roadway to a three-lane roadway with one through lane in each direction and a center two-way left-turn lane. The restriping project would include dedicated right-turn lanes at major intersections, would provide bike lanes, and would involve signal timing and phasing improvements. A conceptual plan for the proposed restriping project, with Brockton Avenue as a four-lane roadway along the project frontage, and transition to the three-lane cross section, is provided in Appendix I. Although the Brockton Avenue Restriping Project is separate and not related to the RCH Expansion Project, the City would require RCH to make certain improvements prior to the completion of Phase I as a condition of project approval.

The Brockton Avenue Restriping Project would affect the following study intersections along Brockton Avenue:

1. Brockton Avenue and University Avenue
3. Brockton Avenue and 14th Street
9. Brockton Avenue and RCH Entrance
11. Brockton Avenue and Tequesquite Avenue
12. Brockton Avenue and Terracina Drive
13. Brockton Avenue and Ramona Drive.

The restriping project would change the lane configurations at these intersections, which in turn could affect the peak hour LOS analyzed above for the project. The study intersections along Brockton Avenue were analyzed by Kimley-Horn incorporating the revised lane configurations proposed by the City's Brockton Restriping Project. The resulting LOS for Year 2014 Cumulative Conditions Plus Phase I are summarized in Table 4.10-15, and the LOS for Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc are summarized in Table 4.10-16. The analysis and results presented below assumes that the RCH mitigation measures **MM TRA-1** through **MM TRA-8** are in place.

Table 4.10-15
Year 2014 Cumulative Conditions Plus Phase I
Plus Brockton Restriping Project Intersection Operations

Intersection	Control Type	Peak Hour	2014 Without Restriping		2014 With Restriping		Difference in Delay (sec)	Impact
			Delay	*LOS*	*Delay*	*LOS*		
1. Brockton Avenue and University Avenue	Signal	a.m.	24.8	C	27.8	C	3.0	No
		p.m.	32.0	C	24.9	C	-7.1	No
3. Brockton Avenue and 14th Street	Signal	a.m.	36.5	D	46.3	D	9.8	Yes
		p.m.	44.6	D	49.0	D	4.4	No
9. Brockton Avenue and RCH Entrance	One-way stop	a.m.	14.1	B	14.1	B	0.0	No
		p.m.	17.1	C	17.1	C	0.0	No
11. Brockton Avenue and Tequesquite Avenue	Signal	a.m.	19.5	B	27.4	C	7.9	No
		p.m.	22.4	C	54.1	D	31.7	Yes
12. Brockton Avenue and Terracina Drive	Signal	a.m.	0.8	A	1.7	A	0.9	No
		p.m.	0.9	A	2.5	A	1.6	No
14. Brockton and Ramona Drive	Signal	a.m.	7.8	A	15.3	B	7.5	No
		p.m.	5.2	A	5.3	A	0.1	No

sec = seconds

Phase I

For Year 2014 Cumulative Conditions Plus Project, with the Brockton Avenue Restriping Project, all the study intersections along Brockton Avenue would operate at an acceptable LOS. However due to the delays, and given the City's thresholds for delays, two intersections would operate at unacceptable levels:

3. Brockton Avenue and 14th Street: AM Peak Hour, LOS D, 9.8-second delay
11. Brockton Avenue and Tequesquite Avenue: PM Peak Hour LOS D, 31.7-second delay.

These impacts occur with the project's mitigation measures incorporated (which are needed to mitigate the project's impacts without the Brockton Avenue Restriping Project). Therefore, the impacts to these two intersections takes place after the RCH project mitigation measures have been incorporated. The impacts as a result of the Brockton Avenue Restriping Project would be the responsibility of the City should it move forward with this separate project, and no further mitigation is required by RCH.

Table 4.10-16
Year 2035 Cumulative Conditions Plus Phases IIa, IIb, and IIc Plus Brockton Restriping Project Intersection Operations

Intersection	Control Type	Peak Hour	2035 Without Restriping		2035 With Restriping		Difference in Delay (sec)	Impact
			Delay	*LOS*	*Delay*	*LOS*		
1. Brockton Avenue and University Avenue	Signal	a.m.	22.2	C	23.0	C	0.8	No
		p.m.	48.4	D	50.6	D	2.2	No
3. Brockton Avenue and 14th Street	Signal	a.m.	28.4	C	29.9	C	1.5	No
		p.m.	34.5	C	37.8	D	3.3	No
9. Brockton Avenue and RCH Entrance	One-way stop	a.m.	12.2	B	12.2	B	0.0	No
		p.m.	15.1	C	15.1	C	0.0	No
11. Brockton Avenue and Tequesquite Avenue	Signal	a.m.	13.5	B	18.6	B	5.1	No
		p.m.	24.6	C	50.4	D	25.8	Yes
12. Brockton Avenue and Terracina Drive	Signal	a.m.	0.8	A	1.9	A	1.1	No
		p.m.	0.8	A	2.7	A	1.9	No
14. Brockton and Ramona Drive	Signal	a.m.	6.6	A	12.8	B	6.2	No
		p.m.	32.4	C	32.4	C	0.0	No

Sec = seconds

Phases IIa, IIb, and IIc

For year 2035 cumulative conditions plus project, the analysis shows that with the Brockton Avenue Restriping Project, only the intersection of Brockton Avenue and Tequesquite Avenue remains over the delay threshold in the PM Peak Hour; all the study intersections along Brockton Avenue would operate at an acceptable LOS. Since the analysis that shows this impact already includes mitigation measures being incorporated, the impact to Brockton Avenue and Tequesquite Avenue remains after feasible RCH project mitigation measures have been incorporated. Therefore, it would be responsibility of the City to address the impacts associated with the Brockton Avenue Restriping Project, should they move forward with this project. No further mitigation is required of the RCH project.

Threshold: Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

As described above, the project (Phases I, IIa, IIb, and IIc), would result in increased delays at some study area intersections and roadway segments and in some cases would cause the LOS to fall below acceptable levels per the City's standards. The CMP for Riverside County has an adopted LOS standard of E. The CMP includes specific roadways related to the general and main

circulation routes in the County. The only street included within the project study area that is included in the CMP is Magnolia Avenue. None of the other project-studied streets are listed as CMP-designated highways. The project would have the following impacts on Magnolia Avenue.

Intersection Operations

Phase I Impacts

5. 14th Street and Magnolia Avenue / Market Street: PM Peak Hour – LOS D.

With the addition of project-related traffic from Phase I, this intersection would operate at LOS D. The CMP for Riverside County has an adopted LOS standard of E. Therefore, impacts associated with this intersection operation would be **less than significant** and no mitigation measures are necessary.

Phases IIa, IIb, and IIc

5. 14th Street and Magnolia Avenue / Market Street: PM Peak Hour – LOS E.

With the addition of Phase IIa, IIb, and IIc traffic, LOS at this intersection would be reduced to LOS E. The CMP for Riverside County has an adopted LOS standard of E. Therefore, impacts associated with this intersection operation would meet the LOSE E standard and impacts are considered **less than significant;** no mitigation measures are necessary.

Roadway Segment Operations

Phase I

The addition of project-related traffic during Phase I would not reduce the LOS on any roadway segments.

Phases IIa, IIb, and IIc

- 14th Street: Magnolia Avenue to Mulberry Avenue – LOS F.

The CMP for Riverside County has an adopted LOS standard of E; therefore, with the addition of Phase IIa, IIb, and IIc traffic, this roadway segment would operate at a deficient LOS and would result in significant impacts. Mitigating this roadway segment would require widening 14th Street beyond the GP 2025 roadway width (which the street is currently at). Due to this, and the constraints of existing historical resources along this roadway segment that would be impacted by any roadway widening, impacts to this roadway segment would remain **significant** with no feasible mitigation measures available to mitigate the impact. This roadway segment would require a Statement of Overriding Considerations.

Threshold: Would the project result in a change in air traffic patterns including either an increase in traffic levels or a change in location that results in substantial safety risks?

An existing helipad is located approximately 13.5 feet above the top level of the parking structure along 14th Street (identified as Building G on Figure 4.9-4, Site Plan). The helipad is used to accommodate public service helicopters for community disaster preparedness, as well as Emergency Medical Service helicopters. As stated in the City's Conditional Use Permit Case P09-0693 and Design Review Case P09-0694 for the helipad, approximately 12 landings per month will occur, and the heaviest use is typically during late evenings and weekends (City of Riverside 2010).There would be no change in helipad traffic patterns as a result of the project. The project does not anticipate an increase in air traffic levels and no additional helipads would be allowed on campus. Since the project does not involve any changes in air traffic patterns or features that would change potentially cause a change in air traffic patterns, impacts would be **less than significant**.

Threshold: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The project site is currently served by several RTA bus routes, including routes 1, 13, 14, 15, and 50. The project would not result in any changes to these existing bus routes, nor is it expected to conflict with the RTA's plans for service in the project area. The project would include some improvements to the existing transit infrastructure to help facilitate bus service. The proximity of the bus turnout located immediately north of the entrance to the RCH Physician Parking Lot along Magnolia Avenue sometimes results in turning movement conflicts between buses and cars, although the Traffic Impact Analysis (Appendix I) did not model any delays or impacts at this driveway location. When improvements are made to the Physician Parking Lot along Magnolia Avenue during Phase IIa, the project proposes to redesign the layout, parking, and access for this portion of the campus, which would resolve the potential conflicts between buses and vehicles entering the hospital. In the interim, RCH is committed to working with RTA and City staff to identify minor modifications to reduce the potential for conflicts (**MM TRA-9**). A diagram of the existing bus turnout and RCH driveway layout and a diagram of a potential interim solution are provided in Appendix I.

The project site is also currently accessible for bicycles and pedestrians. Specifically, sidewalks and bike lanes are currently provided along Magnolia Avenue, 14th Street, and Brockton Avenue. As outlined in Chapter 5.0, Circulation, of the RCH Specific Plan, the project would be designed to encourage pedestrian activity to and from the campus, as well as internally between campus buildings. Internal sidewalks would be maintained and/or constructed as needed to provide pedestrian access in and around the campus. Separation of pedestrians from vehicular

and bicycle traffic would be accomplished through several elements on site, such as the installation of sidewalks and incorporation of pedestrian walking paths within landscape buffers. These pathways would create a network that allows patients, visitors, and employees the ability to quickly and efficiently travel on foot to any destination on the RCH campus. Planting adjacent to walkways would be maintained at a reasonable height to ensure the safety and security of pedestrians. Sidewalks and walkways would range in widths between 6 feet and 10 feet. Pedestrian-level lighting would be provided on all walkways to eliminate poorly lit areas to ensure safety and comfort for pedestrians after dark.

Since the project would improve the accessibility and safety of transit, bicycle, and pedestrian facilities on and around the campus, it would not conflict with adopted policies, plans, or programs regarding these transportation modes. Impacts are considered **less than significant**. However, in an effort to further the alternative methods of transportation supporting the project, and therefore supporting polices and plans related to alternative modes of transportation, the project will implement **MM TRA-9** and **MM TRA-10**.

4.10.5 Mitigation Measures

Section 15126.4 of the CEQA Guidelines requires EIRs to describe feasible measures that can minimize significant adverse impacts. The following mitigation measures have been evaluated for feasibility and are incorporated to reduce potentially significant traffic impacts.

MM TRA-1 **Brockton Avenue and 14th Street:** Prior to the completion of Phase I, Riverside Community Hospital (RCH) shall convert the number one westbound through lane to a second left-turn lane.

MM TRA-2 **14th Street and Magnolia Avenue / Market Street:** Prior to the completion of Phase I, RCH shall modify the signal operation at 14th Street and Magnolia Avenue / Market Street to provide right-turn overlap for the northbound approach.

MM TRA-3 **Brockton Avenue and RCH Entrance:** Prior to the completion of Phase I, the driveway at the RCH entrance off Brockton Avenue shall be modified to prohibit westbound (outbound) left-turn movements to reduce delay. As a condition of approval, southbound left turns into the driveway at the RCH entrance off Brockton Avenue shall be restricted. This measure will also address level of service during Phases IIa, IIb, and IIc.

MM TRA-4 **Brockton Avenue and 14th Street:** Prior to issuance of certificate of occupancy for Phase IIa, the intersection of Brockton Avenue and 14th Street shall be modified by converting one westbound through lane to a second left-turn lane.

MM TRA-5 **14th Street and Magnolia Avenue / Market Street,** prior to issuance of certificate of occupancy for Phase IIa, a second westbound left-turn lane shall be provided at the intersection of 14th Street and Magnolia Avenue / Market Street, as well as signal operation modification to provide right-turn overlap for the northbound approach. Additional right-of-way shall be dedicated on 14th Street at Market Street to accommodate the proposed turn lanes. If acquisition of off-site right-of-way is necessary, the applicant shall make a good faith effort to acquire the right-of-way needed to accomplish the improvement.

MM TRA-6 **14th Street and Lime Street:** Prior to issuance of a certificate of occupancy for Phase IIa, the northbound through/right-turn lane at the intersection of 14th Street and Lime Street shall be converted into an exclusive right-turn lane to accommodate heavy right-turn movement toward the freeway. Signal operation shall be modified to provide right-turn overlap for the northbound approach.

MM TRA-7 **Brockton Avenue roadway segment from Tequesquite to Ramona:** During Phase I, modification of the traffic signal at the intersection of Brockton Avenue and Tequesquite Avenue shall provide protected/permissive left-turn phasing in all directions.

MM TRA-8 **Brockton Avenue roadway segment from 14th Street to Tequesquite:** During Phase I, Brockton Avenue south of 14th Street shall be restriped to provide a northbound right-turn lane and the traffic signal at the intersection of Brockton Avenue and 14th Street shall be modified to provide right-turn overlap for the northbound approach.

MM TRA-9 During Phases I, IIa, IIb, and IIc, RCH shall work with the Riverside Transit Agency and City of Riverside staff to identify modifications to reduce the potential for conflicts between buses and vehicles entering the RCH campus.

MM TRA-10 During Phases I, IIa, IIb, and IIc, RCH shall continue to implement two ride-sharing rewards programs in coordination with IE511 (Inland Empire Commuter Incentives).

4.10.6 Environmental Impacts After Mitigation Is Incorporated

Impacts related to traffic can be mitigated to less than significant levels by incorporating mitigation measures as described in Section 4.10.6. The following is an analysis of any residual impacts that might occur after the specified mitigation measures are incorporated.

Phase I Project Impacts After Mitigation

3. Brockton Avenue and 14th Street

As shown in Table 4.10-17, implementation of **MM TRA-4** would improve the intersection of Brockton Avenue and 14th Street to LOS C in the PM peak hour. Therefore, with **MM TRA-4** in place, the impact at Brockton Avenue and 14th Street would be less than significant.

4. 14th Street and RCH Entrance

This intersection is currently unsignalized and does not satisfy the signal warrant as described in Appendix I. This intersection will continue to operate at LOS D, as an unsignalized intersection, and any traffic backup as a result of the peak hour delay will be contained completely on the RCH campus. Since this intersection does not satisfy the signal warrant, no improvements to this intersection are recommended. The impact at this intersection would therefore remain significant.

5. 14th Street and Magnolia Avenue / Market Street

As shown in Table 4.10-17, implementation of **MM TRA-2**, which calls for a right-turn overlap on the northbound leg of this intersection, would reduce the overall delay at the intersection for Year 2014 Plus Phase I Project conditions. This improvement would reduce the delay at this intersection to below the Year 2014 Without Project conditions. Therefore, implementation of **MM TRA-2** would reduce the impact at this intersection to less than significant.

9. Brockton Avenue and RCH Entrance

As shown in Table 4.10-17, with implementation of **MM TRA-3**, the intersection of Brockton Avenue and the RCH Entrance would improve to LOS C, and the intersection of Brockton Avenue at Tequesquite Avenue would continue to operate at an acceptable LOS. Therefore, implementation of **MM TRA-3** would reduce the impact at this intersection to less than significant.

Phase II (Program Level) Impacts After Mitigation

3. Brockton Avenue and 14th Street

As shown in Table 4.10-17, implementation of **MM TRA-4** would improve the intersection of Brockton Avenue and 14th Street to LOS C in the PM peak hour. Therefore, with **MM TRA-4** in place, the impact at Brockton Avenue and 14th Street would be less than significant.

4. 14th Street and RCH Entrance

This intersection is currently unsignalized and does not satisfy the signal warrant as described in Appendix I. This intersection will continue to operate at LOS D, as an unsignalized intersection, and any traffic backup as a result of the peak hour delay will be contained completely on the RCH campus. Since this intersection does not satisfy the signal warrant, no improvements to this intersection are recommended. The impact at this intersection would therefore remain significant.

5. 14th Street and Magnolia Avenue / Market Street

As shown in Table 4.10-17, implementation of **MM TRA-5** would improve the LOS at this intersection to LOS C in the PM peak hour. Therefore, with **MM TRA-5** in place, the impact at the intersection of 14th Street and Magnolia Avenue / Market Street would be less than significant.

6. 14th Street and Lime Street

Implementation of **MM TRA-6**, which calls for modification of the right-turn lane for the northbound approach, would reduce potential impacts at this intersection as shown on Table 4.10-17. Although the intersection would still operate at LOS F, the delay at this intersection would be greatly reduced compared to pre-project conditions. Therefore, with **MM TRA-6** in place, the impact at the intersection of 14th Street and Lime Street would be reduced to less than significant.

9. Brockton Avenue and RCH Entrance

Implementation of **MM TRA-3** would improve the LOS at the intersection of Brockton Avenue and the RCH Entrance to LOS C, and the intersection of Brockton Avenue at Tequesquite Avenue would continue to operate at an acceptable LOS as shown on Table 4.10-17. Therefore, with **MM TRA-3** in place, the impact at the intersection of Brockton Avenue and the RCH Entrance would be reduced to less than significant.

Table 4.10-17
Summary of Intersection Operations with Mitigation

Intersection	Peak Hour	2014 Cumulative Plus Phase I		2014 Cumulative Plus Phase I with Mitigation		Difference in Delay (sec)	Impact
		Delay	*LOS*	*Delay*	*LOS*		
3. Brockton Avenue and 14th Street	p.m.	44.6	D	24.5	C	−20.1	No
4. 14th Street and RCH Entrance	p.m.	30.4	D	30.4	D	0	No
5. 14th Street and Magnolia Avenue / Market Street	p.m.	49.1	D	43.8	D	−5.3	No
9. Brockton Avenue and RCH Entrance	p.m.	795.4	F	17.1	C	−778.3	No

Table 4.10-17
Summary of Intersection Operations with Mitigation

Intersection	Peak Hour	2035 Cumulative Plus Phase II		2035 Cumulative Plus Phase II with Mitigation		Difference in Delay	Impact
		Delay	*LOS*	*Delay*	*LOS*		
3. Brockton Avenue and 14th Street	p.m.	52.5	D	34.5	C	−18	No
3. 14th Street and RCH Entrance	p.m.	23.1	C	23.1	C	0	No
5. 14th Street and Magnolia Avenue / Market Street	p.m.	61.6	E	45.8	D	−15.8	No
6. 14th Street and Lime Street	p.m.	223.5	F	81.7	F	−141.8	No
9. Brockton Avenue and RCH Entrance	p.m.	268.2	F	15.1	C	−253.1	No

sec = seconds
Note: Kimley-Horn Traffic Impact Analysis (see Appendix I) included only PM results, as AM impacts were all found to be less than significant.

Roadway Segment Impacts

The following roadway segments were found to be significant, but with mitigation can be reduced to less than significant:

- Brockton Avenue: 14th Street to Tequesquite Avenue – LOS F (MM TRA-8)
- Brockton Avenue: Tequesquite Avenue to Ramona Drive – LOS F (MM TRA-7).

The roadway segment of 14th Street from Magnolia Avenue / Market Street to Mulberry Avenue will operate at LOS F during Phase II. Because 14th Street at this segment is already built out to its ultimate GP 2025 configurations, and due to historic structures in the way of any further widening beyond what is in the GP 2025, the City does not plan to widen 14th Street at this intersection. Therefore, since widening cannot occur, which would be the only feasible measure to address the LOS on this roadway segment, impacts will remain significant with no feasible mitigation measures. The impact to 14th Street from Magnolia Avenue / Market Street to Mulberry Avenue will require a Statement of Overriding Considerations.

4.10.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act (CEQA), as amended.

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4.11 UTILITIES AND SERVICE SYSTEMS

The focus of the following discussion and analysis, based on the Initial Study (IS), public scoping session, and Notice of Preparation (NOP) public comment period, focuses on the Riverside Community Hospital (RCH) Specific Plan Expansion Project's (project's) potential impacts to utilities and service systems, including stormwater drainage facilities and solid waste disposal. Per the IS/NOP (see Appendix A) and a letter from Todd Jorgenson, that indicates that RPU anticipates sufficient surplus water supplies available to meet the incremental increase in water demand for all phases of the project (Jorgenson 2013) (see Appendix F for more information), the project's potential impacts related to an increased demand for potable water and wastewater infrastructure and services would be considered less than significant and will not be discussed further in this Draft Environmental Impact Report (EIR).

In addition to other documents cited in Section 4.11.7, the following references were used in the preparation of this section of the EIR:

- Kimley-Horn and Associates Inc., 2013a, *Preliminary Project Specific Water Quality Management Plan: A Template for Projects located within the Santa Ana Watershed Region of Riverside County* (Project-Specific WQMP; Kimley-Horn 2013a; Appendix J of this EIR).
- Kimley-Horn and Associates Inc., 2013b, *Hydrology and Hydraulics Study for Riverside Community Hospital: Riverside, California* (Hydrology and Hydraulics Study; Kimley-Horn 2013b; Appendix L of this EIR).

4.11.1 Setting

The discussion related to stormwater and solid waste in the following subsections describes the existing environmental conditions at the time the NOP was published and is therefore considered the baseline.

Stormwater

The storm drain system within the City of Riverside (City) is managed and maintained by both the City and the County of Riverside (County). Smaller drainage facilities, consisting mostly of underground closed pipelines and storm drains located in developed areas, are typically maintained by the City. Maintenance of larger drainage facilities and the management of the overall drainage plans in the area are the responsibility of the Riverside County Flood Control and Water Conservation District (City of Riverside 2007a).

The majority of stormwater flows collected within the City discharges to the Santa Ana River, which ultimately drains into the Pacific Ocean near Newport Beach. The Santa Ana River

watershed is over 2,700 square miles and includes the western corner of Riverside County, the southwestern corner of San Bernardino County, a small portion of Los Angeles County, and Orange County. The hospital campus is located within the boundary of the Box Springs Flood Control Master Drainage Plan, where stormwater flows drain to Reach 3 of the Santa Ana River (City of Riverside 2007a).

The project site is currently highly developed and consists mostly of impervious surfaces such as pavement, sidewalks, and roofs. Approximately 22% of the site is considered to be pervious and consists of landscaped areas within planting beds or along the site perimeter. The majority of the site has mild to moderate slopes, with the exception of a roughly 30-foot grade difference near the center of the site that slopes from east to west. Stormwater runoff from the site generally flows to one of five outfalls. Outfall 1 collects approximately 52% of the total runoff from the site and is located at the northeastern corner of the intersection of Brockton Avenue and Tequesquite Avenue. Outfall 2 is located on the south side of 14th Avenue just north of the Riverside Community Players Theatre and collects approximately 19% of the runoff from the site. Outfall 3 accepts approximately 16% of the site's runoff and is located in the southeastern corner of the site along Magnolia Avenue. Outfall 4 accepts 0.03% of the site's runoff and is located at the end of Tequesquite Avenue. Outfall 5 is located in the parking lot located east of the Raincross Medical Office Building (Building Q) and accepts approximately 12% of the site's runoff. For the locations of all outfalls see Figure 4.7-1, On-Site and Municipal Drainage System.

Solid Waste

The project is serviced by Waste Management for solid waste collection. Solid waste collected by Waste Management is taken to the Robert A. Nelson Transfer Station, which is owned by the County of Riverside and operated under a 20-year franchise by Burrtec. Burrtec then transfers the waste to the Badlands Landfill, El Sobrante Landfill, or the Lamb Canyon Landfill (City of Riverside 2007a). These three landfills have a combined remaining capacity of 161 million tons, as shown in Table 4.11-1.

Table 4.11-1
Existing Landfills

Landfill	Location	Estimated Close Date	Maximum Permitted Daily Load (tons/day)	Maximum Permitted Capacity (tons)	Current Remaining Capacity (tons)
Badlands Landfill	31125 Ironwood Avenue Moreno Valley, CA	2024	4,000	17.6 million	7.9 million as of January 2013
El Sobrante Landfill	10910 Dawson Canyon Road Corona, CA	2045	16,054	184.9 million	145.5 million as of April 2009

Table 4.11-1
Existing Landfills

Landfill	Location	Estimated Close Date	Maximum Permitted Daily Load (tons/day)	Maximum Permitted Capacity (tons)	Current Remaining Capacity (tons)
Lamb Canyon Landfill	16411 Lamb Canyon Road (SR 79) San Jacinto, CA	2021	5,000	15.6 million	7.6 million as of January 2013
		Total	25,054	218.1 million	161.0 million

Source: CalRecycle 2013a; Ross, pers. comm. 2013.

Under the baseline conditions, the hospital generates approximately 5.89 tons of trash per day, or approximately 2,150 tons annually (refer to Appendix H, Table A, for more details).

Related Regulations

Federal

There are no federal laws or regulations that pertain to stormwater or solid waste handling at the project site.

State

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989, also known as Assembly Bill (AB) 939, requires that each city or county prepare a new integrated waste management plan. The act further required each city to prepare a Source Reduction and Recycling Element by July 1, 1991. Each Source Reduction and Recycling Element includes a plan for achieving a solid waste goal of 25% by January 1, 1995, and 50% by January 1, 2000. A number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act were adopted, including a revision to the statutory requirement for 50% diversion of solid waste. In 2011, AB 341 was passed, requiring the California Department of Resources Recycling and Recovery (CalRecycle) to require local agencies to include strategies to enable the diversion of 75% of all solid waste by 2020. In 2013, the County's reported waste diversion rate was in compliance with disposal rate requirements in the Integrated Waste Management Act (CalRecycle 2013b).

Assembly Bill 341

As of July 2012, AB 341 requires all businesses in California to recycle. A business is defined as including any commercial or public entity that generates more than 4 cubic yards of solid waste

per week. The law requires that such businesses source separate their recycling and/or compostable materials and donate or haul the material to recycling facilities.

Local

Riverside Municipal Code, Subdivision Code, Title 18

The Subdivision Code (Title 18, Section 18.240.010 et seq.) requires drainage fees to be paid to the City for new construction. Fees are transferred into a drainage facilities fund that is maintained by Riverside County Flood Control and Water Conservation District. Pursuant to the City's Subdivision Code (Title 18, Section 18.240030), the project applicant would be required to pay all sewer connection fees and facilities fees. The project will also be required to comply with all rules, regulations, and other requirements of the City for use of stormwater facilities.

Riverside Municipal Code, Health and Sanitation Code, Title 6

The Health and Sanitation Code (Title 6, Section 6.04 et seq.) specifies the requirements for handling solid waste and recycling materials.

City of Riverside General Plan 2025

There are no applicable policies from the City's General Plan 2025 (GP 2025; City of Riverside 2007c) that apply to the project's potential impacts related to utilities.

Riverside County Waste Management Department – Design Guidelines

The Riverside County Waste Management Department (RCWMD) Design Guidelines for Refuse and Recyclables Collection and Loading Areas are intended to assist project proponents in identifying space and other design considerations for refuse/recyclables collection and loading areas per the California Solid Waste Reuse and Recycling act of 1991. The Design Guidelines require one 4-cubic-yard refuse bin and one 4-cubic-yard recyclables bin per each 20,000 square feet of office, general commercial, or industrial space. Compliance with the Design Guidelines is necessary for obtaining an RCWMD clearance for issuance of a building permit. Prior to building permit issuance, a site plan that indicates the location and capacity of solid waste and recycling collection and loading areas must be submitted to the RCWMD for review and approval (RCWMD 2013).

Riverside County Waste Management Department – Construction and Demolition Recycling

The RCWMD also requires that projects that have the potential to generate construction and demolition waste complete a waste recycling plan to identify the estimated quality and location

of recycling of construction and demolition waste from the project. A waste recycling report is then required upon completion of the project that demonstrates that the project recycled a minimum of 50% of its construction and demolition waste (RCWMD 2013).

4.11.2 Thresholds of Significance

Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on the IS prepared for the project and Appendix G of the CEQA Guidelines, the development project could have a significant impact on utilities and service systems if the project would:

- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs
- Not comply with federal, state, and local statutes and regulations related to solid waste.

4.11.3 Project Elements That Can Reduce Impacts

Stormwater

Surface runoff from the site will drain to the existing stormwater system through one of the five existing stormwater outfalls currently collecting stormwater from the site (described in Section 4.11.1). The project includes an infiltration system located on the project site near the northeast corner of Brockton Avenue and Tequesquite Avenue that would have the capacity to accept and treat the runoff from the parking structure (Building O), the medical office building (Building P), the Phase I bed tower (in the location of the existing Building N), and Phases IIb and IIc prior to draining to Outfall 1. Additionally, as discussed in Section 4.7, Hydrology/Water Quality, the project includes a second new infiltration system that would be built in the northern portion of the site and would collect and treat runoff from the area where Phase IIa would be constructed prior to draining into the municipal storm drain system through Outfall 2. Though the location and design of this second infiltration system is not known at this time, the City and the Santa Ana Regional Water Quality Control Board (RWQCB) will have final approval of the revised project-specific or phase-specific water quality management plan prior to construction of Phase IIa and installation of the infiltration system. The second infiltration system at Outfall 2 is expected to be constructed of materials similar to the existing on-site infiltration system and be of the appropriate size to collect and treat all surface flows collected prior to entering the stormwater drainage system at Outfall 2 so that no new facilities would be needed.

Solid Waste

During operations of the expanded hospital campus, all non-hazardous solid waste generated from the project site once operational (such as plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard) would be recycled by RCH to the greatest extent possible, with the goal of 75%, in compliance with the Integrated Waste Management Act.

4.11.4 Environmental Impacts Before Mitigation

Threshold: Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Project- and Program-Level Elements

As discussed in Section 4.11.1, the project site is currently highly developed and consists mostly of impervious surfaces such as pavement, sidewalks, and roofs. Stormwater runoff from the site generally flows to one of the five outfalls shown on Figure 4.7-1. Since redevelopment of the site does not involve replacing pervious surfaces with impervious surfaces, but involves replacing an existing impervious surface, such as a surface parking lot, with a new impervious surface, such as a parking structure, the project is not expected to cause a substantial change in the total surface runoff from the site. This is demonstrated by the analysis in the Hydrology and Hydraulics Study, which shows that with Phase I buildout the runoff draining to Outfalls 2, 3, 4, and 5 is not expected to change, and the total runoff from the site draining to Outfall 1 is expected to increase by up to approximately 3.2% (or 1,302 cubic feet during a 2-year storm event) (Kimley-Horn 2013b; Appendix L). Per the Santa Ana RWQCB water quality management plan requirements, a difference of 5% or less is considered insignificant (RWQCB 2012). Additionally, the calculations in the Hydrology and Hydraulics Study (Appendix L) indicate that the existing on-site storm drain system has the capacity to convey the 10-year storm from all phases of the project without surcharge or flooding. Overall, the construction and operation of the new infiltration system at Outfall 2 and the moderate increase in runoff to Outfall 1 from the site due to the project would not require the construction of new stormwater drainage facilities or expansion of existing facilities, and impacts would be considered **less than significant**. Mitigation measures are not required.

Threshold: Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

As discussed in Section 4.11.1, the project site is serviced by Waste Management for solid waste pickup and removal. In the future, Waste Management or another waste hauling company is expected to collect solid waste generated on the site and take it to the Robert A. Nelson Transfer Station, which is owned by the County of Riverside and operated under a 20-year franchise by

Burrtec. From the transfer station the solid waste is expected to be transferred to the Badlands Landfill or another County landfill in the area, such as El Sobrante Landfill or the Lamb Canyon Landfill (City of Riverside 2007a). Table 4.11-1 provides information on the existing landfills and demonstrates that the three landfills that would serve the project site have a total combined remaining capacity of 161 million tons.

Project- and Program-Level Elements

Construction of all phases of the project would generate construction waste (e.g., concrete rubble, asphalt rubble, wood, drywall) that would result in an increased demand for solid waste collection and disposal capacity. As stated in Section 4.11.1, the RCWMD will require the completion and submittal of a waste recycling plan to the RCWMD for approval prior to issuance of building permits for the site, which will be required as a Condition of Approval and is therefore included as **MM UTL-1**. The waste recycling plan will identify and estimate the materials to be recycled during construction and demolition activities, and will specify where and how the recyclable materials will be stored on the site. A waste recycling report that demonstrates that the project recycled a minimum of 50% of its construction and demolition waste will then be approved by the RCWMD prior to issuance of occupancy permits.

Once operational, each phase of the project would generate solid waste similar to that generated from office operations and medical uses currently occurring at the site, but in proportionately greater quantities. Table 4.11-2 lists the anticipated solid waste quantities generated at the site through Phase IIb (for more detail see Appendix H).

Table 4.11-2
Project Anticipated Solid Waste Generation

Project Phase	Total Anticipated Solid Waste Generated (tons/day)	Total Anticipated Solid Waste Generated (tons/year)
Baseline	5.89	2,150
Phase I (2014–2017)	7.04	2,570
Phases IIa, IIb, and IIc* (2017–2043)	10.89	3,970

Source: CalRecycle 2013c, 2013d (see Appendix H).
* The size of Phase IIc (mixed-use building) is not known at this time. Anticipated waste generation from Phase IIc was estimated based on a conservative assumption of 30 beds and an additional 200,000 square feet.

As stated above, all non-hazardous solid waste generated from the project site (such as plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard) would be recycled per local and state regulations mentioned above, with a goal of 75%, in compliance with the Integrated Waste Management Act. Remaining non-hazardous solid waste would be disposed of at one of the Riverside County landfills (hazardous waste is managed and disposed of in compliance with all applicable federal, state, and local laws and is discussed in greater

detail in Section 4.6, Hazards and Hazardous Materials, of this EIR). The RCWMD will review building plans and ensure that proper space is set aside to allow for the collection and storage of recyclable materials prior to issuance of building permits, which has been included as **MM UTL-2** to ensure that there is adequate space for recycling on the project site.

If a conservative recycling rate of 50% is assumed, then the project would send approximately 3.5 tons per day to an area landfill with implementation of Phase I at the site, and would send approximately 5.5 tons per day to an area landfill with implementation of Phases IIa, IIb, and IIc. These amounts represent approximately 0.01% and 0.02% of the total maximum permitted capacity (25,054 tons/day) of the three local landfills listed in Table 4.11-1. Therefore, the amount of solid waste generated and disposed of in nearby landfills during operation of the project is expected to be within the permitted capacity of the landfills. With recycling required by RCWMD implemented during all construction and operational phases of the project as described in this response, potential impacts associated with solid waste capacity would be considered **less than significant**. However, incorporation of **MM UTL-1** and **MM UTL-2** requiring the preparation of a recycling plan and subsequent review of building plans by the City will ensure adequate space is allotted for recycling on site.

Threshold: Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Project- and Program-Level Elements

During both construction and operation of all phases of the new hospital (Phases I, IIa, IIb, and IIc), the project would comply with all state and local statutes or regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act as amended and the City of Riverside Municipal Code, Title 6, Health and Sanitation. There are no federal regulations or statutes related to solid waste that apply to the project. As noted above, during construction all wastes will be recycled to the maximum extent possible and per **MM UTL-1**, the project shall prepare a recycling plan addressing how its construction waste will be recycled. All non-hazardous solid waste generated from the project site once operational (such as plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard) would be recycled, with a goal of 75%, in compliance with the Integrated Waste Management Act. Incorporation of **MM UTL-2** requires that the City approve recycling plans on the building plans for the project, ensuring that proper space for recycling efforts has been allowed on the site. The remaining non-hazardous solid waste would be disposed of at one of the County landfills (hazardous waste is managed and disposed of in compliance with all applicable federal, state, and local laws and is discussed in greater detail in Section 4.6.). Since the project will comply with state and local statutes and regulations related to solid waste during construction and operation of all phases,

impacts would be considered **less than significant**. However, incorporation of **MM UTL-1** and **MM UTL-2** has been included to ensure preparation of waste recycling plans.

4.11.5 Mitigation Measures

Impacts to utilities and service systems as a result of the project are found to be less than significant. However, the following mitigation measures have been included to ensure preparation of waste recycling plans:

MM UTL-1 Prior to issuance of building permits, the applicant shall complete a Construction Waste Recycling Plan and submit the plan to the Riverside County Waste Management Department (RCWMD) for approval. The plan, will identify and estimate the materials to be recycled during construction and demolition activities and will specify where and how the recyclable materials will be stored on the site. Compliance with the plan will be a requirement in all construction contracts. The RCWMD-approved plan will be attached to all construction plans and distributed to all construction contractors. Once construction is complete, the applicant will be responsible for preparing a Waste Recycling Report that demonstrates that the project recycled a minimum of 50% of its construction and demolition waste. The waste recycling report must be submitted to and approved by the RCWMD prior to issuance of occupancy permits. Since this project will be developed in phases over time, review and approval of Construction Waste Recycling Plans and Waste Recycling Reports can be submitted by phase or building. However, for each Construction Waste Recycling Plan submitted and approved, a corresponding Waste Recycling Report should also then be submitted for approval.

MM UTL-2 Prior to issuance of building permits, the applicant shall submit building plans to the RCWMD and obtain approval from the RCWMD for compliance with the Riverside County Design Guidelines for Refuse and Recyclables Collection and Loading Areas, which include specifications for recyclable storage space, location and access, signage, protection and security, compatibility, and overall compliance with federal, state, and local laws.

4.11.6 Environmental Impacts After Mitigation Is Incorporated

Since the mitigation measures above require the project to prepare and submit plans that outline and provide for recycling of construction and operation waste, and by doing so, reduce impacts related to solid waste, there are no impacts remaining after mitigation that would be considered significant.

4.11.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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4.12 ENERGY CONSERVATION

The following discussion and analysis is based on the California Environmental Quality Act (CEQA) Guidelines, Section 15126.4, and Appendix F of the CEQA Guidelines, which require that environmental impact reports (EIRs) include a discussion of the potential energy impacts of projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (14 CCR 15000 et seq.). The section is also related to the potential impacts to energy consumption, including electricity, natural gas, and gasoline, from implementation of the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project).

In addition to references listed in Section 4.12.7, the following references were used in the preparation of this section of the Draft EIR:

- *City of Riverside General Plan 2025* (GP 2025; City of Riverside 2007a)
- *2011 Integrated Energy Policy Report* (2011 IEPR; CEC 2011).

4.12.1 Setting

Electricity

In 2010, according to the 2011 IEPR prepared by the California Energy Commission (CEC), California used over 272,300 gigawatt hours (GWh) of electricity (CEC 2011). According to the U.S. Energy Information Administration (EIA 2013), California ranked 48th for electricity consumption, likely because of California's mild climate. Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building.

Because of the state's energy efficiency standards and efficiency and conservation programs, California's per capita energy use has remained stable for more than 30 years, while the national average has steadily increased. The 2011 IEPR estimates that electricity consumption will grow by 1.67% per year from 2010 to 2020, with peak demand growing an average of 1.76% annually over the same period. By sector, transportation uses 38.2% of the state's electricity, followed by 22.7% from industrial, 19.8% from commercial, and 19.3 from residential land uses (EIA 2013). For the project, the existing RCH facility used an average of 14,812,958 kilowatt hours (kWh) of electricity per year from 2009 to 2012.

Natural Gas

According to the 2011 IEPR, California used approximately 12,700 million therms of natural gas (excluding fuel for electricity generation) in 2010 (CEC 2011). Approximately 87% of

California's natural gas supplies are imported via pipelines from the Southwest, the Rocky Mountains, and Canada.

California is the second-largest natural gas consumer in the United States, representing more than 10% of the nation's natural gas consumption. In 2010, residential and commercial uses accounted for 33% of the state's natural gas demand. Large consumers such as electricity generators and the industrial sector accounted for about 63% of demand. California remains heavily dependent on natural gas to generate electricity, which provides 9,516 GWh of electricity (EIA 2013). RCH used an average of 61,573,175 kBTU (kilo-British thermal units) per year of natural gas for heating and cooling from 2009 to 2012.

Petroleum

In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum is the source of approximately 40% of the greenhouse gas (GHG) emissions in California, according to the 2011 IEPR (CEC 2011). According to the EIA, by June 2013, California used approximately 16,105 thousand barrels of petroleum yearly. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. According to the CEC's 2011 IEPR, consumption of gasoline, diesel and jet fuel has declined (CEC 2011). In 2006, California consumption was 23.2 billion gallons and in 2010 it changed to 21.5 billion gallons. Based on the IEPR 2012 Update, due to the prevalence of petroleum projects in the transportation sector, the rise in costs of these fuels, the federal Renewable Fuel Standard, and the California low carbon fuel standard, California is diversifying its transportation fuel sources, increasing fuel efficiency, and changing land use and urban design to reduce the need for transportation (CEC 2012).

Related Regulations

Federal

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2010, fuel economy standards were set at 27.5 miles per gallon (mpg) for new passenger cars and 23.5 mpg for new light trucks. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased corporate average fuel economy (CAFE) standards for motor vehicles, the act includes other provisions related to energy efficiency:

- Renewable fuel standard (RFS) (Section 202)
- Appliance and lighting efficiency standards (Sections 301–325)
- Building energy efficiency (Sections 411–441).

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum (Section 202, RFS). The U.S. Environmental Protection Agency (EPA) is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act of 2007 (EISA), the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of our nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline;
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- EISA established new categories of renewable fuel, and set separate volume requirements for each one;
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces (EPA 2013).

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

State

Title 24 of the California Code of Regulations

Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in Title 24 guidelines.

Hospital facilities, such as RCH, are not generally subject to the energy efficiency requirements applied to other non-residential building types specified in Title 24.

Senate Bill 1368

On September 29, 2006, Governor Arnold Schwarzenegger signed into law Senate Bill 1368 (Perata, Chapter 598, Statutes of 2006). The law limits long-term investments in baseload generation by the state's utilities to power plants that meet an emissions performance standard jointly established by the CEC and the California Public Utilities Commission.

The CEC has designed regulations that:

- Establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 lbs CO_2 per megawatt-hour (MWh). This will encourage the development of power plants that meet California's growing energy needs while minimizing their emissions of greenhouse gases;
- Require posting of notices of public deliberations by publicly owned utilities on long-term investments on the Energy Commission website. This will facilitate public awareness of utility efforts to meet customer needs for energy over the long-term while meeting the State's standards for environmental impact; and
- Establish a public process for determining the compliance of proposed investments with the EPS [emissions performance standard] (Perata, Chapter 598, Statutes of 2006).

Assembly Bill 1493

Adopted in 2002 by the state legislature, Assembly Bill 1493 ("Pavley" regulations) required that the California Air Resources Board (CARB) develop and adopt, no later than January 1, 2005, regulations to achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles.

The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005 and was denied by the EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the Clean Air Act requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions."

The EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. On September 24, 2009, CARB adopted amendments to the Pavley regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment to a nationwide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September 2009 amendments will allow for California's enforcement of the Pavley rule while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles.

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22% in 2012 and about 30% in 2016, all while improving fuel efficiency and reducing motorists' costs.

CARB has adopted a new approach to passenger vehicles—cars and light trucks—by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California (CARB 2013).

Local

<u>City of Riverside General Plan 2025</u>

The Open Space and Conservation Element of the City of Riverside's (City's) GP 2025 (City of Riverside 2007a) includes the following energy-related policies that are applicable to the project and should be implemented:

- **Policy OS-8.5:** Develop landscaping guidelines that support the use of vegetation for shading and wind reduction and otherwise help reduce energy consumption in new development for compatibility with renewable energy sources (i.e., solar pools).
- **Policy OS-8.10:** Support the use of public transportation, bicycling and other alternative transportation modes in order to reduce the consumption of non-renewable energy supplies.
- **Policy OS-8.12:** Require bicycle parking in new non-residential development.

4.12.2 Thresholds of Significance

The CEQA Guidelines provide no specific thresholds for impacts associated with energy consumption. However, Appendix F of the CEQA Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts with regard to energy. Based on Appendix F, a development project could have a significant impact on utilities and service systems if the project would:

- Result in wasteful, inefficient, or unnecessary consumption of energy
- Conflict with existing energy standards and regulations
- Place a significant demand on local and regional energy supplies or require a substantial amount of additional capacity.

4.12.3 Project Elements That Can Reduce Impacts

The project's building envelope; heating, ventilation, and air-conditioning (HVAC); lighting; and other systems, such as electric motor equipment, shall be designed to maximize energy performance. Additionally, the project will be designed to include the features listed in Table 4.12-1 that will reduce emissions of GHGs, which in turn relates to reductions in energy use.

Table 4.12-1
Project Design Features – Energy Reduction

Building Component	Design Feature
Roof	Single-ply thermoplastic roof membrane over 5/8-inch exterior gypsum sheathing over rigid insulation over metal deck with lightweight concrete fill.
	Minimum R-30 insulation.
	Certified compliant membrane with CEC definition of a cool roof. Based on G410-20 feltback membrane by Sika Sarnafil Inc.; minimum 80 mil, white.
	Initial Solar Reflectance: Minimum measured initial solar reflectance value of 0.85 plus or minus 0.02, when tested in compliance with ASTM C 1549, ASTM E 903, or ASTM E 1918.
	3-Year Aged Solar Reflectance: Minimum measured solar reflectance value of 0.60, when maintained under normal conditions and tested in compliance with ASTM C 1549, ASTM E 903, or ASTM E 1918.
Exterior wall	Type 1: Cast stone over continuous rigid insulation on fluid applied air/vapor barrier over 0.625-inch exterior gypsum sheathing over 6-inch metal stud framing with bat insulation; total system minimum R-19.
	Type 2: 3-inch insulated composite metal panel over fluid applied water protection over 0.625-inch exterior gypsum sheathing over 9-inch metal stud framing with bat insulation; total system minimum R-19.
	Type 3: 6-inch architectural precast concrete over 6-inch metal stud framing, used in non-conditioned garage stair tower.

Table 4.12-1
Project Design Features – Energy Reduction

Building Component	Design Feature
Glazing	Vision Glass Insulating Glazing Units (IGUs): Design is based on PPG Solarban R100 solarblue tinted over clear glass (which has visible light-exterior reflectance of 15%).
	Winter Nighttime Center-of-Glass (COG) U-Factor: Maximum 0.29 BTU per hour per square foot per degree Fahrenheit.
	Summer Daytime COG U-Factor: Maximum 0.27 BTU per hour per square foot per degree Fahrenheit.
	Total Shading Coefficient: Maximum 0.22, when calculated using a spectral data file determined in accordance with NFRC 300 and NFRC Verification Procedures.
	Total Solar Heat Gain Coefficient: Maximum 0.19, when determined in compliance with NFRC 200.
	Ceramic-Coated Spandrel Glass IGUs: Design is based on 1-inch VE1-42 Insulating HS/HS Spandrel by Viracon (which has visible light-exterior reflectance of 15%).
	Winter Nighttime COG U-Factor: Maximum 0.29 BTU per hour per square foot per degree Fahrenheit.
	Summer Daytime COG U-Factor: Maximum 0.27 BTU per hour per square foot per degree Fahrenheit.
Lighting systems – interior (interior lighting systems will not be necessary in all rooms)	Provide individual lighting controls for minimum of 90% of building occupants to enable adjustments to suit individual task needs and preferences.
	Provide dimming or multilevel switching for all spaces larger than 100 square feet in which the connected lighting load exceeds 0.8 watts (W) per square foot.
	Provide time switches, photoelectric switches, occupancy sensors, and light sensors.
	Provide dimming controls.
	LED exit signs used.
Exterior lighting	55 W compact fluorescent lamp, 39 W LED lamp pole lights, 39 W compact fluorescent bollard light.
Indoor building water use	Toilets – 1.28 gallons/flush. Not all toilets will comply with the indoor building water use.
	Urinals – 1.0 pints/flush.
	Faucets – 0.5 gallons/minute. Not all faucets will comply with the indoor building water use.
	Showers – 2.5 gallons/minute.
Outdoor water use	Irrigation – Fully automatic, electronically controlled irrigation using low-flow spray heads, rotors, and drip irrigation technology.
	Irrigation Control – Controllers equipped with rain-sensing shutoff switches.
	Water Usage – Modify plant palette to use water-efficient, drought-tolerant, naturalized plant materials.

As discussed in Section 5.0, Circulation, of the Specific Plan, transportation demand management is a strategy designed to reduce single-occupancy vehicle trips during peak hours and is an ongoing program at RCH. Transportation demand management seeks to shift commuters to transportation modes other than cars and encourage ride-sharing and carpooling programs. RCH will continue to implement two current ride-sharing rewards programs in coordination with Riverside Transit Authority. Both programs are promoted through informational flyers at RCH and at new hire orientation. A transportation demand management

coordinator is available on the RCH campus to facilitate the distribution of information and make sure it remains current. The current transportation demand management program for the hospital includes the following two measures, which would be continued under the project:

- 2 Dollars/Day Program: Participants log their modes of commuting for 3 months and are awarded points for using alternative modes of transportation, such as the Metrolink, bus, bike routes, and carpooling. The program enables employees to connect for carpool. At the end of the 3-month period, participants are awarded gift cards based on the points accrued.
- Ride-Share Plus Program: Participants are provided with tools for carpooling, bicycling, and other alternative modes of transportation. Participants in this program have usually completed the 2 Dollars/Day Program and continue to log hours to accumulate rewards, such as a coupon book ($1,000 value).

The City's Transportation Demand Management Regulations (City of Riverside 2007b, Chapter 19.880) provides regulations to protect the public health, safety, and welfare by reducing air pollution caused by vehicle trips and vehicles miles traveled. In addition to the current ride-sharing and carpooling programs, RCH will incorporate the following transportation demand measures to help achieve the required vehicle-reduction targets:

- Preferential parking for carpool vehicles;
- Bicycle parking and shower facilities for employees;
- Local transportation management and roadway improvements; and
- On-site amenities such as cafeterias, restaurants, automated teller machines, and other services that would eliminate the need for additional trips (City of Riverside 2007b, Chapter 19.880).

4.12.4 Environmental Impacts Before Mitigation

Threshold: Would the project result in wasteful, inefficient, or unnecessary consumption of energy?

Implementation of the project would increase the demand for electricity and natural gas at the project site and gasoline consumption in the region during construction and operation.

Electricity

The construction phase will require electricity for the manufacture and transportation of building materials, preparation of the site, and construction of the buildings and infrastructure. The

operational phase will require electricity for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, electronics, and hospital equipment.

The California Emissions Estimator Model (CalEEMod), Version 2013.2.2, was used to estimate project emissions from energy uses (see Appendix B for calculations). Electricity generation rates were customized according to baseline data rather than using default electricity generation rates in the South Coast Air Quality Management District (SCAQMD). According to these estimations, RCH would consume approximately 22,664,570 kWh per year during Phase I and 41,290,660 kWh per year during Phases IIa, IIb, and IIc, resulting in a net increase of 7,851,612 and 26,477,702 kWh per year, respectively, from the average annual electricity usage from 2009-2012 (SCAQMD 2013). This estimation does not take into consideration the effectiveness of the project's energy conservation features listed previously, which would result in a lower demand for electricity than this estimate; however, to provide for a conservative analysis, this reduction is not accounted for in the analysis.

Natural Gas

Natural gas would be consumed throughout construction and operations of the project. Energy would be required during construction for the production of building materials and construction of buildings and infrastructure. Natural gas consumption during construction would be required for various purposes, including but not limited to building heating and cooling.

Natural gas generation rates were customized in CalEEMod according to baseline data taken from RCH rather than using default natural gas generation rates in the SCAQMD (see Appendix B for calculations). According to these estimations, RCH would consume approximately 98,825,938 kBTU per year during Phase I and 179,590,100 kBTU per year during Phases IIa, IIb, and IIc, resulting in a net increase of 37,252,763 and 118,016,925 kBTU per year, respectively, from the average annual natural gas usage for 2009-2012 (SCAQMD 2013). This estimation does not take into consideration the effectiveness of the project's energy conservation features listed previously, which would result in a lower demand for natural gas than this estimate; however, to provide for a conservative analysis, this reduction is not accounted for in the analysis.

Petroleum

Petroleum would be consumed throughout construction and operations of the project. Energy would be required during construction for the transportation of building materials and construction of buildings and infrastructure. Gasoline and diesel use would account for the vast majority of construction-period energy needs. During operations, the majority of fuel consumption resulting from the project would involve the use of motor vehicles traveling to

and from the RCH campus. Petroleum consumption would also be attributed to emergency generators and boilers.

Petroleum fuel consumption associated with the project is a function of the vehicle miles traveled as a result of project construction and operations. As discussed in Sections 4.10, Traffic; 4.2, Air Resources; and 4.5, Greenhouse Gas, the analysis has estimated the number of trips associated with the project which would result in additional fuel consumption and energy use associated with transportation.

According to the traffic report for the project (included as Appendix I), Phase I would result in a net increase of 2,446 trips from the existing trip generation and Phases IIa, IIb, and IIc would result in a net increase of 5,777 trips.

Statewide emission reduction measures proposed in the CARB-adopted amendments to the Pavley regulations include measures aimed at reducing GHG emissions associated with transportation. These amendments are part of California's commitment to a nationwide program to reduce new passenger vehicle GHGs from 2012 through 2016. It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22% in 2012 and about 30% in 2016, all while improving fuel efficiency and reducing motorists' costs. In response to Senate Bill 375, CARB has adopted the goal of reducing per capita GHG emissions from 2005 levels by 8% by the year 2020 and 13% by the year 2035 for light-duty passenger vehicles in the Southern California Association of Governments (SCAG) planning area. This reduction would occur by reducing vehicle miles traveled through the integration of land use planning and transportation (SCAG 2012). As such, vehicle trips associated with the project are expected to use less petroleum due to advances in fuel economy over time.

CARB has adopted a new approach to passenger vehicles—cars and light trucks—by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California (CARB 2013).

In order to accommodate the RCH expansion, new boilers and emergency generators would be installed. Overall, petroleum consumption would increase upon use of the new boilers and emergency generators. However, the majority of petroleum usage for the project would be attributed to motor vehicles travelling to and from the RCH campus.

Although electricity and natural gas consumption would increase due to the implementation of the project, the building envelope, HVAC, lighting, and other systems, such as electric motor equipment, shall be designed to maximize energy performance. Additionally, features included in Table 4.12-1 would reduce emissions of GHGs, which in turn relates to reductions in energy use. There are no statewide mandatory energy requirements for hospitals, as these occupancies

are exempt from Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains voluntary energy measures that are applicable to hospitals under the California Green Building Standards Code. Although implementation of the project would not meet all the voluntary standards of Title 24, Part 11, certain design features would meet these measures. For example, roofing design features described in Table 4.12-1 would have a minimum initial solar reflectance of 0.85, exceeding the standard value of 0.75 set by Title 24, Part 11(24 CCR, Part 11). Therefore, electricity and natural gas consumption would not be inefficient or wasteful.

RCH will incorporate transportation demand measures in order to help achieve the required vehicle reduction targets from the City's Transportation Demand Management Regulations. And although the project would see an increase in vehicle trips, vehicles associated with the project are expected to use less petroleum due to advances in fuel economy over time. Given these considerations, RCH will not contribute to inefficient or wasteful consumption of petroleum. Therefore, impacts related to wasteful, inefficient, or unnecessary consumption of energy would be **less than significant** and no mitigation measures are required.

Threshold: Would the project conflict with existing energy standards and regulations?

There are no statewide mandatory energy requirements for hospitals, as these occupancies are exempt from Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains voluntary energy measures that are applicable to hospitals under the California Green Building Standards Code. RCH could decide to follow voluntary energy measures upon implementation of the project. As discussed under the previous threshold, the project would result in an increased demand for electricity, natural gas, and petroleum. The project design features listed in Table 4.12-1 would reduce the project's energy consumption by more than what is required by the State of California. Because the project would voluntarily implement design features and programs to reduce energy consumption beyond what is required by the state, the project would be consistent with existing energy standards and regulations. Therefore, impacts related to conflicting with existing energy standards and regulations would be **less than significant** and no mitigation measures are required.

Threshold: Would the project place a significant demand on local and regional energy supplies or require a substantial amount of additional capacity?

As discussed under the previous thresholds, the project would result in an increased demand for electricity, natural gas, and petroleum. However, design features would reduce the project's energy consumption by more than what is required by the State of California.

The City receives electricity primarily from Riverside Public Utilities, Electric Division. According to the Final Program EIR for the City's General Plan (Final GP 2025 PEIR), Riverside Public Utilities' annual power usage was 1,962,000 MWh for the 2004–2005 fiscal

year (City of Riverside 2007c). Typical electrical energy use for the year 2025, upon buildout of the General Plan, would be approximately 4,824,478 MWh per year for the entire City of Riverside including unincorporated communities north and south of the City. According to CalEEMod estimates (see Appendix B for calculations), the implementation of the project would result in a net increase in electricity demand by 7,851.6 MWh per year during Phase I and 26,477.7 MWh per year during Phases IIa, IIb, and IIc, respectively 0.16% and 0.55% of the City's estimated energy use for 2025. Therefore, the project would not significantly exceed energy demands as projected by the City's Final GP 2025 PEIR (City of Riverside 2007c).

The Southern California Gas Company is the main provider of natural gas to the City. According to the City's Final GP 2025 EIR, typical natural gas usage for the year 2025, upon buildout of the General Plan, would be a net increase of approximately 41.39 million cubic feet per day, or 15,107,350 million BTU per year from existing natural gas usage for the entire City of Riverside including unincorporated communities north and south of the City (City of Riverside 2007c). According to CalEEMod estimations (see Appendix B for calculations), the implementation of the project would result in a net increase in natural gas demand by 37,253 million BTU per year during Phase I and 118,017 million BTU per year during Phases IIa, IIb, and IIc, respectively 0.25% and 0.78% of the City's estimated energy use for 2025. Therefore, the project would not exceed demands as projected by the City's Final GP 2025 PEIR (City of Riverside 2007c).

According to the project's traffic impact analysis (Appendix I), upon buildout of Phases I, IIa, IIb, and IIc, a total of 2,446 and 5,807 daily cumulative trips would be generated, respectively. Upon completion of the project, a total of 5,777 new net trips are anticipated, which includes an assumption for internal capture of trips within the RCH campus, as described in Section 4.10, Traffic. Vehicles traveling to and from the project site would be the primary source of petroleum consumption. It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22% in 2012 and about 30% in 2016, which can be attributed to improvements in fuel efficiency. As a result of these regulations, CARB has adopted a new approach to passenger vehicles—cars and light trucks—by including efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California (CARB 2013). Although the project would see an increase in vehicle trips, vehicles associated with the project are expected to use less petroleum due to advances in fuel economy over time.

Transit accessibility, given the hospital's proximity to the Metrolink station and ridesharing incentives discussed previously, would also help reduce potential petroleum consumption. In addition, RCH will incorporate transportation demand measures to help achieve the required vehicle reduction targets from the City's Transportation Demand Management Regulations.

Therefore, impacts related to energy supplies and capacity would be **less than significant** with incorporation of Mitigation Measure **MM TRA-10** (see Section 4.10.6).

4.12.5 Mitigation Measures

While applicable to the project's traffic impacts, Mitigation Measure **MM TRA-10** would result in a reduction in single-occupancy vehicle trips and petroleum consumption.

4.12.6 Environmental Impacts After Mitigation Is Incorporated

Impacts related to demand on local and regional energy supplies can be mitigated to **less than significant** levels by incorporating **MM TRA-10**, as described in Section 4.12.5.

4.12.7 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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CHAPTER 5.0
MANDATORY CEQA TOPICS

5.1 INTRODUCTION

California Environmental Quality Act (CEQA) Guidelines Section 15126 requires environmental impact reports (EIRs) to include a discussion of (1) the significant environmental effects of a project, (2) the unavoidable significant environmental effects if the project is implemented, (3) any irreversible changes should the project be implemented, and (4) growth-inducing impacts (14 CCR 15000 et seq.).

The following is a guide to where most of these issues are discussed in this document:

- Significant Environmental Effects – throughout Chapter 4.0
- Mitigation Measures – Executive Summary and throughout Chapter 4.0
- Alternatives – Chapter 7.0
- Growth-Inducing Impacts – Chapter 8.0.

Therefore, since the above issues are discussed in other sections of this document, this chapter will only address the Riverside Community Hospital (RCH) Specific Plan Expansion Project's (project's) significant unavoidable and irreversible impacts.

5.1.1 Significant Unavoidable Environmental Effects

CEQA Guidelines Section 15126.2(b) further directs EIRs to address impacts from a project that will result in significant impacts, including those that cannot be mitigated below a level of significance. A summary of all the environmental issue areas and the resultant significance and listing of mitigation measures is found in the Executive Summary of this document. To summarize, the following issue areas will result in **significant impacts** even after mitigation measures have been incorporated, thus resulting in unavoidable impacts:

- **Air Quality.** Air emissions related to construction and operation will exceed Southern California Air Quality Management District (SCAQMD) significance thresholds and therefore will be cumulatively considerable and expose sensitive receptors to pollutants. Although mitigation measures have been imposed, none can reduce these impacts to less than significant levels.
- **Noise.** Construction of the project would result in significant noise impacts even with mitigation measures incorporated. Mitigation measures would help reduce potential impacts; however, they would not reduce impacts to a level below significance.

- **Traffic.** Mitigation measures have been incorporated to reduce potential impacts related to traffic and transportation. However, the intersection of 14th Street and the RCH Entrance cannot be mitigated below a level of significance; therefore, impacts remain significant and unavoidable.

5.1.2 Significant Irreversible Changes

CEQA Guidelines mandate that the EIR must address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (14 CCR 15126(c)). An impact would fall into this category if:

- The project would involve a large commitment of nonrenewable resources
- The primary and secondary impacts of the project would generally commit future generations of people to similar uses
- The project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project
- The proposed consumption of resources is not justified (e.g., the project results in wasteful use of energy).

Determining whether the project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Construction of each of the project components would result in the use of nonrenewable resources and energy sources, including fossil fuels, natural gas, and electricity. Fossil fuels would be used to power construction equipment, as well as delivery and construction employee vehicles. Construction equipment would also use electricity and natural gas. Use of these energy sources would be considered a permanent commitment of resources. In addition, a variety of resource materials would be used during the construction process, including steel, wood, concrete, and fabricated materials. Once these materials and fuels are used for purposes of construction, the commitment of such materials and fuels would be considered irreversible.

Once operational, the project components would consume more energy on a daily basis than is currently consumed on site. A portion of the energy used would be provided by nonrenewable sources. Once constructed, it is reasonable to assume that the facility will use nonrenewable energy resources, which would be an irreversible commitment of such resources; however, energy-saving measures are included as part of the project and can be found in Section 4.12, Energy Conservation. Additionally, the project is a relatively minor energy consumer compared to other local and regional users. Therefore, this would not be considered a significant irreversible environmental effect.

CHAPTER 6.0
CUMULATIVE IMPACT ANALYSIS

6.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) examine the cumulative impacts associated with a project, in addition to project-specific impacts. The discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone (14 CCR 15130(b)).

As stated in the CEQA Guidelines, an EIR "shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable" (14 CCR 15130(a)). "Cumulatively considerable" means that "the incremental effects of an individual 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 as defined in Section 15130" (14 CCR 15065(c)). Section 15355 of the CEQA Guidelines states that cumulative impacts occur from "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

A cumulative impact is not considered significant if the impact can be mitigated to below the level of significance through mitigation, including providing improvements and/or contributing funds through fee-payment programs. The EIR must examine "reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project" (14 CCR 15130(a)(3) and 15130(b)(5)).

6.2 CUMULATIVE ANALYSIS SETTING

The cumulative impact analysis for the proposed Riverside Community Hospital (RCH) Specific Plan Expansion Project (project) is based on information contained in the City of Riverside (City) General Plan (GP) 2025 (City of Riverside 2007a), and the Final Program EIR for the City of Riverside General Plan 2025 (Final GP 2025 PEIR; City of Riverside 2007b), since the site is located at RCH, in the City, within the County of Riverside. Both of these documents are incorporated in this chapter by reference.

6.3 CUMULATIVE FORECASTING METHODOLOGY

Section 15130(b)(1)(A) of the CEQA Guidelines allows for the preparation of a list of past, present, and reasonably anticipated future projects as a viable method of determining cumulative

impacts. This discussion uses the following approach: an initial list and description of all related projects is presented, followed by a discussion of the effects that the project may have on each environmental category of concern, such as traffic, noise, etc. Consistent with CEQA (California Public Resources Code, Section 21000 et seq.), this discussion is guided by the standards of practicality and reasonableness.

Related Projects

This section of the analysis provides a list of past, present, and reasonably foreseeable future projects that the City determined were most relevant to the project. Several development proposals and City projects in proximity to the project have been submitted for consideration or have been recently approved that together with the project may result in an increase in construction-related environmental impacts. Table 6.0-1 presents the development proposals within a 2-mile radius of the project site. A 2-mile radius captures all of Downtown Riverside and the surrounding area to the extent that impacts may occur to local access routes. The projects listed in Table 6.0-1 serve as the foundation on which the cumulative analysis approach has been based. However, the geographic extent for cumulative analysis varies depending on each environmental issue area. For example, air quality impacts need to consider the entire South Coast Air Basin (SCAB), whereas noise and traffic impacts are localized within a 2-mile radius. The geographic extent for cumulative analysis of each environmental issue area is described below.

Table 6.0-1
Cumulative Projects

No.	Cumulative Project	Location/Address	Description
1	Vocational school	1820–1860 University Avenue	Junior/community college
2	Rezone to CR-SP for commercial development	1820–1860 University Avenue	Apartments commercial office
3	Condominium complex	NW corner of Dominion Avenue and Division Street	Residential condominium
4	LA Fitness expansion	3439 Arlington Avenue	Health/fitness center
5	Riverside packing house	3141 Ninth Street	General light industrial General office building
6	Senior housing complex	2340 14th Street	Senior housing – attached
7	Three-story office	3950 and 3952 Vine Street	Commercial office
8	Nine-lot subdivision	3745 Strong Street	Single-family residential
9	48-unit residential, commercial retail	3105 Market Street	Apartments Retail
10	Raincross Promenade, 141-unit condominium	3225 Main Street	Residential condominium
11	Fox Plaza	3250 Market Street	Retail Residential Condominium
12	Jacobs Medical Office	4577 Brockton Avenue	Medical office building

Table 6.0-1
Cumulative Projects

No.	Cumulative Project	Location/Address	Description
13	Church with 180 fixed seats	4183 Fairgrounds Street	General light industrial Church
14	Two-story senior housing facility	5938–5944 Grand Avenue	Senior housing – attached
15	Vocational school	3550 Vine Street	Commercial office Junior/community college
16	Senior housing facility	2450 Market Street	Senior Housing
17	Riverside Community College Administration Building	NE Corner Market and Ramona	Administration building
18	RCH Medical Office Building	4510 Brockton Avenue	Medical office building
19	Existing medical office building to be vacated	Riverside Community Hospital Campus	Medical office building to be vacated

Source: Kimley-Horn 2014 (see Appendix I).
CR-SP = Commercial Retail-Specific Plan

6.4 ASSESSMENT OF CUMULATIVE IMPACTS

6.4.1 Aesthetics

The geographic extent for this cumulative impact analysis includes Downtown Riverside and specific projects located within a 2-mile radius of the project site. Use of this area is appropriate given the type and extent of the viewsheds and prominent scenic resources near the site, such as Mount Rubidoux.

As described in Chapter 2.0, Project Description, the RCH campus currently occupies approximately 852,186 square feet of development consisting of several multistory buildings, parking lots and garages, and associated landscaping. The project is located in a visual environment that consists of an urbanized area in the Downtown Specific Plan (DSP)–Health Care (HC) District in the City. The visual character of the area surrounding the RCH campus can be described as a developed area with a wide variety of land uses (commercial and residential).

Downtown Riverside consists of a variety of artistic, natural, historical, and judicial facilities. The Almond Street District and Justice District are directly to the north. The Almond Street District is primarily residential uses and is characterized by its historic single-family residential buildings. The Justice District is the legal and office epicenter of the surrounding region. Although the majority of the City is urbanized, the hills and ridgelines that surround the City provide scenic vistas. Vista points can be found throughout the City, as viewed both from urban areas toward the hills and from open space areas toward the City. The most prominent scenic resource near the site is Mount Rubidoux to the northwest (located less than 1 mile from RCH), which can be viewed from most locations at the site.

Generally, there are no related projects adjacent to the project site that would contribute a cumulatively significant aesthetic impact as viewed from the project area looking toward the surrounding resources such as Mount Rubidoux or the San Bernardino Mountains. Essentially, the project combined with the related projects would not result in a wall of development that would block the available views of surrounding resources such as Mount Rubidoux or the San Bernardino Mountains. Most projects described in Table 6.0-1, Cumulative Projects, are within developed areas and are not in a location that would create a significant cumulative impact to surrounding visual resources. Projects would be located between the project site and the San Bernardino Mountains, which are located north-northeast of the RCH Campus. The views of the San Bernardino Mountains are already disrupted because the RCH campus is located in the established urban area of Downtown Riverside. However, along 14th Street, northbound travelers can see Mount Rubidoux, and with the exception of tall, overhead wood and steel transmission structures and associated lines, the views of Mount Rubidoux are largely unobstructed. With the exception of the Jacobs Medical Office Building, the projects are generally located north, northeast, east, and south of the RCH campus and would not be in a location that would cumulatively obstruct views of Mount Rubidoux with the project. The Jacobs Medical Office is a proposed three-story building, located northwest of the RCH campus (OPR 2008). The Jacobs Medical Office Building would not be significantly taller than the surrounding buildings and therefore the view of Mount Rubidoux would not be disrupted by the combined development of the project and the Jacobs Medical Office Building. Cumulative impacts to scenic vistas would be **less than significant.**

Although there are no state scenic highways near the project site as identified by the California Scenic Highway Program (Caltrans 2011), Figure CCM-4, Master Plan of Roadways, in the GP 2025, Circulation and Community Mobility Element (City of Riverside 2007a), designates Magnolia Avenue as a 120-foot Arterial, Parkway, Scenic, and Special Boulevard. However, Magnolia Avenue ends at 14th Street (transitioning into Market Street at 14th Street), which is the intersection adjacent to the RCH campus. The projects listed in Table 6.0-1, Cumulative Projects, would not significantly affect views along Magnolia Avenue and therefore, combined with the project, would have **no cumulative impact** on views from the roadway.

The visual character and quality of the RCH Campus and its surroundings would not suffer due to the project because the project would include development standards that would ensure that all new development would be visually compatible with adjacent uses. Other development projects are not located close enough to impact the RCH Campus and its immediate surroundings. Projects would be interspersed throughout an established urban setting and would not combine to impact the visual character of the area. Impacts to visual character, if they exist, tend to be site specific. It is anticipated that visual character that is potentially affected by related projects would also be subject to the same requirements of CEQA as the project. Therefore, the project would not contribute to any potential cumulative impacts, and cumulative impacts on visual character would be **less than significant.**

The lighting proposed by the project would change the lighting on the site compared to current conditions; however, the project would not create a new source of substantial light. The project would create new sources of glare, although impacts would be less than significant with mitigation. Considering that the cumulative projects listed in Table 6.0-1 (see Figure 6.0-1) are located at a considerable distance from the project site (the majority are approximately 1 to 2 miles away) and are interspersed throughout the urbanized Downtown Riverside area, the combination of light and glare from the project and the projects in the surrounding vicinity would not adversely affect daytime or nighttime views. Additionally, the RCH campus is already an illuminated area. Any new sources of light would be shielded and would comply with existing City regulations, as well as the Specific Plan's (SP's) regulations (Dudek n.d.). Per the Specific Plan, Chapter 8, all lights would be directed, oriented, and shielded to prevent light from shining onto adjacent properties, onto public rights-of-way, and into driveway areas in a manner that would obstruct drivers' vision, in accordance with Chapter 19.556 of the City's Municipal Code (City of Riverside 2007c). Therefore, the project would have **less than significant** impacts with regard to the cumulative effects of lighting and glare.

6.4.2 Air Quality

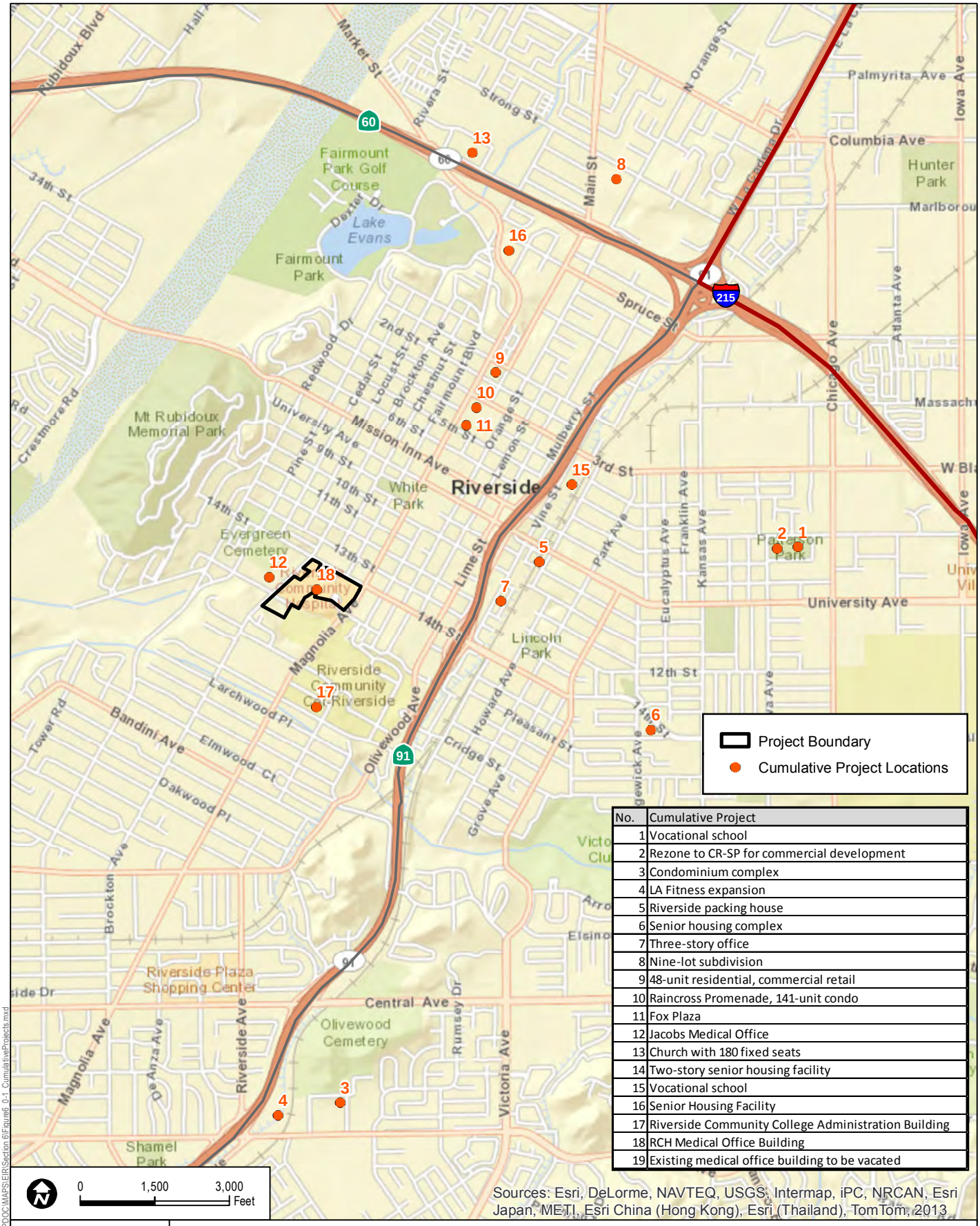
The geographic extent for the analysis of cumulative impacts related to air quality includes the SCAB. In analyzing cumulative impacts from the project, the assessment must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SCAB is designated as nonattainment for the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS). Implementation of the project would result in short-term impacts to air quality associated with construction and long-term impacts associated with increased vehicle traffic to and from the site as well as energy use.

Phase I construction of the project would occur from June 2014 to December 2016, lasting approximately 30 months. Construction schedule and construction equipment for Phases IIa, IIb and IIc are not known as this time, but estimated dates are used for the purpose of calculating the construction emissions as described in Section 4.2 of this EIR. Since exact construction schedules for specific activities during Phases IIa, IIb, and IIc are not known at this time, potential impacts to sensitive receptors that might be located within an area of overlap between emissions from two simultaneous projects are speculative. Air pollutant emissions associated with construction activity of Phase I project as well as future projects from Phases IIa, IIb, and IIc would be reduced through the implementation of control measures required by the South Coast Air Quality Management District (SCAQMD). Cumulative particulate matter (PM_{10} and $PM_{2.5}$) emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD. Operations of the project would produce volatile organic compounds (VOCs), oxides of nitrogen (NO_x),

carbon monoxide (CO), sulfur oxides (SO_x), PM_{10}, and $PM_{2.5}$ emissions from hospital and medical office land uses. As discussed in Section 4.2, the project's long-term operational air quality impacts are considered significant, even with application of all feasible mitigation measures. The cumulative effect of the project and other projects in the vicinity would incrementally contribute to the SCAB's levels of ozone (O_3), nitrogen dioxide (NO_2), CO, PM_{10}, and $PM_{2.5}$. The location of the project within a nonattainment area for O_3, NO_2, PM_{10}, and $PM_{2.5}$, when combined with other foreseeable projects within the area, would result in significant cumulative impacts on air quality, even with incorporation of all feasible area source and vehicular source mitigation measures. Because feasible mitigation measures consist of many emission reduction strategies (e.g., architectural design features, encouragement of alternative transportation), most of which help reduce emissions, current technology does not allow for a complete reduction of emissions given the types of development proposed. Therefore, despite the City's efforts to require all feasible mitigation, cumulative impacts would remain **significant**.

With regard to cumulative impacts associated with nonattainment pollutants, in general, if a project is consistent with the community and general plans, it has been accounted for in the attainment demonstration contained within the State Implementation Plan and would therefore not cause a cumulatively significant impact on the ambient air quality. The project site is designated DSP (Downtown Specific Plan) and DSP–HC (Downtown Specific Plan–Health Care) in the City GP 2025 and Municipal Code, Zoning (City of Riverside 2007a, 2007c), respectively. The site is currently developed with a hospital campus that is in compliance with the DSP–HC designation for the site. The project would be consistent with the DSP and DSP–HC land use and zoning designations as a hospital campus and no change in land use would occur with implementation of the project. An SP is being prepared specifically for the RCH campus (Dudek n.d.) that will supersede the existing DSP.

Furthermore, the project would be consistent with the population and growth projections of the Southern California Association of Governments (SCAG). The expanded facility would result in a greater availability of hospital services and would meet the increase in demand of the area. Meeting demands for hospital and medical services would not be growth inducing. This project promotes infill development rather than encouraging new development within a currently undeveloped area. In addition, the project would not involve the development of additional housing. However, the project would require additional employees to serve the new hospital bed towers, mixed-use medical buildings, and any additional hospital expansions.



No.	Cumulative Project
1	Vocational school
2	Rezone to CR-SP for commercial development
3	Condominium complex
4	LA Fitness expansion
5	Riverside packing house
6	Senior housing complex
7	Three-story office
8	Nine-lot subdivision
9	48-unit residential, commercial retail
10	Raincross Promenade, 141-unit condo
11	Fox Plaza
12	Jacobs Medical Office
13	Church with 180 fixed seats
14	Two-story senior housing facility
15	Vocational school
16	Senior Housing Facility
17	Riverside Community College Administration Building
18	RCH Medical Office Building
19	Existing medical office building to be vacated

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

DUDEK

SOURCE: ESRI 2013, Kimley-Horn and Associates

FIGURE 6.0-1

Cumulative Projects Map

7824-01

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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According to the SCAG Growth Forecast (Appendix to the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy), employment is anticipated to grow from 151,500 in 2008 to 217,800 in 2035 in the City of Riverside (SCAG 2012, 35). Total employees/staff at the end of Phase I would be 2,290 (RCH currently employs 1,960 employees; an additional 330 estimated employees would be needed to serve the new tower). It is not yet known how many employees would be required upon the completion of the hospital expansion (after Phase IIc has been completed); however the increase in employment would be minimal in comparison to the anticipated increase of the SCAG Growth Forecast. Therefore, the project would not stimulate population growth or a population concentration above what is assumed in local and regional land use plans, or in projections made by regional planning authorities.

Accordingly, since the project would result in increases in levels of employment that are minimal in comparison to the SCAG's employment projection in 2035, the project would be consistent with SCAG's growth projections anticipated in SCAQMD's 2012 Air Quality Management Plan. Thus, the project would not result in a conflict with or obstruct implementation of the applicable air quality plan. Regardless, construction activities associated with the project would result in significant emissions of NO_2 which is a nonattainment pollutant in the SCAB due to cumulative emissions in the air basin and a precursor of O_3.As a result, implementation of the project would result in a **significant** cumulative impact to air quality.

6.4.3 Biological Resources

The geographic extent for the analysis of cumulative impacts to biological resources is based on the projects listed in Table 6.0-1. This accounts for development projects within the nearby vicinity that may provide habitat for the same species as the RCH campus.

The biological study area (i.e., the project site limits and a 500-foot buffer area) contains urban park space, ornamental landscaping, and disturbed land (ruderal) covers. Developed areas dominate the study area and include impervious surfaces and ornamental landscaping. Within the study area, developed areas consist of roadways, sidewalks, driveways and parking areas, loading docks, retail businesses, residences, churches, medical facilities, and urban park space. Overall wildlife abundance and species richness appear to be low because of the urbanized nature of the study area. However, 12 species of birds and 2 mammal species were observed during a site visit, as described in Section 4.3 of this EIR.

As a result of the biological evaluation conducted on the site (Appendix C), there were no species identified as a candidate, sensitive, or special-status species identified on the project site. However, because nesting birds are protected by the Migratory Bird Treaty Act, and since no nesting bird survey was conducted as part of the biological evaluation, there is potential for nesting birds to be present in the ornamental landscaping or on existing buildings at the time of construction of the project. Common native urban bird species that may nest in ornamental

landscaping and species that may choose to nest on bare ground within the project site are described in Section 4.3 of this document. The mitigation proposed to minimize adverse impacts to these species requires that a qualified biologist conduct a nesting bird survey within 1 week of ground-disturbing activities.

Projects surrounding the RCH campus could also provide habitat for the same species. The combined construction of projects within the vicinity could deprive the affected species of a significant amount of habitable space. However, it is anticipated that species that are potentially affected by related projects would also be subject to the same requirements of CEQA as the project. These determinations would be made on a case-by-case basis and the effects of cumulative development on nesting birds would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Additionally, as discussed in Section 4.3, the project is consistent with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Consistency with the MSHCP results in the ability of the project to rely on the MSHCP for mitigation related to cumulative biological impacts. Therefore, cumulative adverse effects on 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 Wildlife or U.S. Fish and Wildlife Service would be **less than significant**.

6.4.4 Cultural Resources

The geographic extent for cumulative analysis of cultural resources is limited to 1 mile of the RCH campus because impacts to cultural resources are generally localized and this area contains historic or archeological resources within the same or similar context or property type. Based on the archeological site records and literature search of the California Historical Resources Information System at the Eastern Information Center, there are 190 historical buildings and structures in the area of potential effect. Based on the age of the structures, there are five buildings (Buildings A, B, D, L, and N) on the RCH site that have been subject to evaluation for potential historical significance (see Figure 4.4-1, Site Plan). All but Building N (medical office building) are at least 50 years old. In addition, there are eight buildings or sites near the project site but off site that have been subject to evaluation for potential historical significance.

Cumulative impacts on cultural resources evaluate whether impacts of the project and related projects, when taken as a whole, substantially diminish the number of historic or archeological resources within the same or similar context or property type. However, impacts to cultural resources, if any exist, tend to be site specific. The historic resources on the site are not part of an existing or known grouping or district of other historic resources that are proposed to be impacted as part of the cumulative impacts of other projects in the area. It is anticipated that cultural resources that are potentially affected by related projects

would also be subject to the same requirements of CEQA as the project and mitigate for their impacts, if applicable. These determinations would be made on a case-by-case basis and the effects of cumulative development on historic resources would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, the project would not contribute to any potential cumulative impacts, and cumulative impacts on cultural resources would be **less than significant**.

6.4.5 Greenhouse Gas Emissions

As greenhouse gas (GHG) emissions and climate change are a global issue, any approved project regardless of its location has the potential to contribute to a cumulative global accumulation of GHG emissions (as opposed to the relatively temporary nature of pollutants related to air quality). In theory, the geographic extent of the cumulative contributions to GHGs and climate change is worldwide. However, lead agencies are only able to regulate GHG emissions within their respective jurisdictions; therefore, the geographic extent is primarily contingent upon the area over which lead agencies have authority. As such, the geographic extent for the purposes of the project is the SCAB.

The SCAQMD has not adopted recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of development projects. However, the California Natural Resources Agency adopted amendments to the CEQA Guidelines on December 30, 2009, which became effective on March 18, 2010.

While the project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally the case that an individual project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008).

As indicated in Section 4.5, Greenhouse Gases, of this EIR, the project would result in an increase in GHG emissions relative to existing conditions. The project would incorporate project design features that would conserve energy and potable water. The project was found to be consistent with local plans and policies to reduce GHG emissions. In addition, several statewide GHG reduction measures would reduce GHG emissions associated with motor vehicles and electrical generation over time. The benefits of these measures are compared to the GHG emissions that would be generated under a business-as-usual scenario. As a result, the project would not contribute to any potential cumulative impacts, and cumulative impacts on GHG emissions would be **less than significant**.

6.4.6 Hazards and Hazardous Materials

Risks associated with hazardous materials are generally site specific and localized, and thus the geographic extent for cumulative analysis is limited to the project site. Dudek conducted a Phase I environmental site assessment (ESA) in July 2013 (Appendix E) to review the history of the site for any indication of on-site historical or current uses that would have impacted the soil or groundwater with hazardous materials. Also identified were four schools within 0.25 mile of the project site: Grant Elementary School, the Riverside City College daycare facility, All Saint's Episcopal Church elementary school and daycare facility, and Central Middle School.

The current use on the project site is an existing hospital campus that handles acutely hazardous medical materials. As part of its state licensing requirements, RCH will update its internal hazardous substance management, handling, storage, disposal, and emergency response plan to be followed during construction of all phases that will ensure adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, and will ensure that construction of the project will not create a significant hazard to the public or the environment, including nearby schools.

As required for state licensing of the hospital, for all phases, RCH will update its internal Hazardous Materials and Waste Management Plan, which regulates the use of hazardous materials for hospital operation and Hazardous Materials Business Emergency Plan (in accordance with California Health and Safety Code, Chapter 6.95, Sections 25500–25532) to reflect transport, storage, use, and disposal of hazardous materials.. These updates would include the use of additional chemicals currently used at the hospital as well as any new chemicals required to operate the project's components. The updated documents will be submitted to County of Riverside Department of Environmental Health (DEH). All chemicals shall be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR 4.5). Additionally, in accordance with the Code of Federal Regulations, Title 40, Part 112, prior to certificate of occupancy issuance for Phases I, IIa, IIb, and IIc, RCH will update its Spill Prevention, Control, and Countermeasures Plan.

Additionally, Phase I of the project includes demolition of Building N, Phase IIa of the project includes demolition of Building A, and Phase IIb of the project includes demolition of parking structure Buildings I and J. Based on the age of the buildings, it is possible that asbestos-containing materials and lead-based paint are present. Asbestos and lead-based paint were very common in building materials during the time these structures were constructed. If not properly handled and removed, asbestos can become airborne during demolition activities and pose a health hazard. Additionally, lead-based paint can pose an ingestion hazard if it becomes entrained into the air or water during demolition activities.

Asbestos and lead-based paint surveys have not yet been conducted since demolition of the buildings is not proposed to occur until after the whole project is approved. Therefore, since it is unknown whether there is asbestos or lead-based paint in Buildings N, A, I, or J, a lead-based paint and asbestos survey will be conducted prior to demolition activities, and should these materials be identified, they would be remediated per the requirements identified by the County of Riverside DEH.

As indicated in Section 4.6, Hazards and Hazardous Materials, of this EIR, mitigation measure **MM HAZ-1** would require a lead-based paint and asbestos survey to be conducted closer to actual demolition activities. Should these materials be identified, abatement shall be conducted according to local, state, and federal guidelines.

Based on the Phase I ESA (Appendix E) described in Section 4.6, there were previous releases associated with underground storage tanks on the project site. Other investigations have identified surrounding land uses that have impacted groundwater and soil on the project site; therefore, mitigation will be incorporated, requiring that testing of soils for VOCs be conducted prior to ground disturbance for all phases of the project. Mitigation (**MM HAZ-3**) would require that prior to construction activities in the area of the former underground storage tanks, a subsurface soil and soil vapor investigation shall be conducted in the northern, northeastern, and western portions of the project site. Mitigation (**MM HAZ-4**) would require that prior to the demolition of the parking structure during Phase IIb of the project, an investigation of the soil in the area of the hydraulic oil release by the parking structure elevator shall be conducted.

As such, the potential for cumulative impacts to occur is limited since the impacts from hazardous materials use on site have been site specific. Although each development site from the cumulative projects list (Table 6.0-1) has potentially unique hazardous materials considerations, it is expected that future development within the area will comply with federal, state, and local statutes and regulations applicable to hazardous materials. Development of the project site will not, therefore, create a cumulative impact related to exposing the public to hazardous materials. For these reasons, cumulative impacts to the public or environment resulting from the accidental release of hazardous materials would be **less than significant**.

Although the project site is located approximately 1.43 miles from Flabob Airport, the project site is not located within Flabob Airport safety zones or other airport environs (City of Riverside 2007b). There is an existing helistop/helipad located approximately 13.5 feet above the top level of the parking structure along 14th Street. The existing helipad would not change locations, and no increase in helicopter operations is proposed or anticipated as part of this project. As such, development from the project as proposed would not result in a safety hazard for patients, visitors, physicians, or staff at the hospital from helicopter operations. Cumulative impacts would be **less than significant** because none of the projects

listed on Table 6.0-1 would involve more air traffic than is currently associated with the helipad at RCH. The project shall comply with the City's Emergency Operations Plan (EOP). Construction activities during Phases I, IIa, IIb, and IIc that may temporarily restrict vehicular traffic would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through or around any required road closures in accordance with the City's EOP. The requirement for an EOP is a standard condition of approval by the City for any construction project and will therefore be a requirement of the project as well. Operation of the project would not interfere with the City's EOP, as all existing access driveways off Magnolia Avenue, 14th Street, and Brockton Avenue would remain in operation throughout project buildout. The project proponent would be required to design, construct, and maintain structures, roadways, and facilities to comply with applicable local, regional, state, and/or federal requirements related to emergency access and evacuation plans. It is required that future development within the area would need to comply with these applicable local, regional, state, and/or federal requirements and that cumulative impacts with regard to interference with an adopted emergency response plan or emergency evacuation plan would be **less than significant**.

6.4.7 Hydrology /Water Quality

The geographic scope of cumulative effects on hydrology and water quality is typically watershed based, whereby projects contributing flow to the same water bodies as the project would be considered. Groundwater basins typically serve localized areas; therefore, any cumulative impacts related to groundwater would generally be localized. Table 6.0-1 covers projects in the immediate vicinity and therefore was used for this cumulative analysis.

The project includes features that will reduce potential impacts to water quality as described in Section 4.7 of this document. In order to address the risk of chemicals used during construction affecting water quality through the release of these materials into stormwater runoff, the project is required to obtain a General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit), pursuant to the National Pollutant Discharge Elimination System regulations established under the Clean Water Act. The permit will require the preparation and implementation of a stormwater pollution prevention plan (SWPPP), which will describe the best management practices (BMPs) that will be implemented to prevent degradation of surface and groundwater during the construction activities. An existing on-site infiltration system and a new infiltration system to be built during Phase I of the project would adequately filter any potential pollutants of concern generated on the site prior to entering the municipal storm drain system. With implementation of the BMPs described in the project-specific SWPPP required per the project's Construction General Permit, and the use of infiltration systems, the project will not be a source of substantial water quality contaminants during or after construction. The project, in conjunction

with other future projects, may potentially affect water quality on a cumulative scale; however, future projects are also required to comply with applicable federal, state, and City regulations for stormwater and construction discharges, including the application of BMPs, which would reduce cumulative impacts to water quality to a **less than significant** level.

No phases of the project include the use of on-site groundwater for its potable or irrigation water sources. Given this consideration, the project would not combine with other projects in the area to create cumulative impacts on the depletion of groundwater supplies.

The project site is located within the Riverside South Basin groundwater basin and where the surface of the site is permeable, surface water flows may percolate to the basin below the project site. As described in Section 4.7, Hydrology/Water Quality, of this document, the project would not substantially change the amount of permeable surfaces on the site. The majority of surface runoff from the site is currently collected by the municipal storm drain system and does not percolate to the groundwater basin below the site. The overall net increase in permeable surface of 0.79 acre at the site would result in a slight increase in water percolation to the groundwater basin below. Therefore, the project would not substantially alter the amount of percolation and recharge of local groundwater. Cumulative projects listed in Table 6.0-1 include the construction of residential commercial, educational, and industrial land uses that are mostly within an urban environment, which does not provide significant recharge resources. The cumulative projects along with the RCH SP may result in an increase in permeable surfaces. However, all projects are required to encourage percolation of stormwater flows through the Water Quality Management Plan (WQMP; Kimley-Horn 2013) process. All projects, including the RCH project, have to comply with WQMP requirements, which require infiltration/percolation, and since the RCH site and most other cumulative projects are located in the urban area of Riverside cumulatively, no significant impact to groundwater recharge or supplies would occur. Therefore, cumulative impacts associated with groundwater recharge and supplies would be **less than significant**.

The project site has relatively mild to moderate slopes of less than 5% with the exception of a roughly 30-foot grade difference near the center of the site that slopes toward the west. Stormwater runoff generated from the site utilizes one of five outfall locations, as identified and labeled on Figure 4.7-1, On-Site and Municipal Drainage System. There are no existing drainage courses on the project site that would be affected by the buildout of the SP. As described in Section 4.7 of this EIR, buildout of the SP largely involves replacement of existing impervious surfaces and would not result in a substantial change in drainage patterns, peak flow rates, or runoff volumes from the site. Therefore, the project would not substantially alter the existing drainage pattern on the site or in the area. Impacts related to drainage patterns, erosion, or siltation on or off site would be less than significant. Cumulative projects listed in Table 6.0-1 include the construction of residential commercial, educational, and industrial land uses that could potentially result in impacts to drainage patterns, erosion, or siltation on or off site if not properly managed.

However, cumulative projects would be subject to CEQA and/or National Environmental Policy Act (NEPA) review and would be required to prepare a phase-specific WQMP, if needed, to address drainage, erosion, or siltation impacts. All projects, not just the RCH project, have to prepare WQMPs, which would need to be reviewed and approved by the City and the Santa Ana Regional Water Quality Control Board (RWQCB) prior to construction start. Because the project would not substantially alter drainage patterns, and because other cumulative projects would be required to meet existing regulations and implement a WQMP as necessary, cumulative impacts would be **less than significant**.

With implementation of the BMPs described in the project-specific SWPPP required per the project's Construction General Permit, temporary construction activities are not expected to be a source of substantial runoff water that would exceed the existing stormwater drainage system. Implementation of the BMPs would also ensure that contaminants from construction activities would not contribute a substantial source of polluted runoff during all phases of the project. Based on the Hydrology and Hydraulics Study for the project, the project would not result in a substantial change in drainage patterns, peak flow rates, or runoff volumes from the site. Impacts related to the existing and planned stormwater drainage systems and pollution runoff would be less than significant. Considering that the project would only slightly alter drainage patterns, peak flow rates, and runoff volumes in the area, the combined effects of the project and other projects within the vicinity would not be cumulatively considerable. Cumulative projects that involve the disturbance of 1 acre of soil or more through construction would be required to create and implement an individual, project-specific SWPPP and project-specific BMPs. In addition, cumulative projects would be subject to CEQA and/or NEPA review and would be required to prepare a phase-specific WQMP, if necessary, which would need to be reviewed and approved by the City and the Santa Ana RWQCB prior to construction start. Overall, cumulative impacts related to stormwater runoff and drainage would be **less than significant**.

6.4.8 Land Use and Planning

While land use impacts tend to be localized in nature, and specific impacts are tied either directly or indirectly to the specific action, the project may have the potential to work in concert with other past, present, or future projects to either cause unintended land use impacts such as reducing available open space or accommodate increased growth that may result in more intensive land uses. Therefore, the geographic extent for cumulative analysis tends toward larger policy areas, such as the GP 2025 and DSP, as opposed to the more focused project-specific impacts.

The project would be consistent with the existing City GP 2025 and the DSP. The project's inconsistency with applicable land use plans, policies, or regulations is demonstrated in Table 4.8-4, Project's Consistency with City of Riverside General Plan 2025, and Table 4.8-5, Project's Consistency with the City of Riverside Downtown Specific Plan, in Section 4.8, Land

Use and Planning, of this EIR. The land use consistency analysis takes several factors into consideration. Overall, as shown in the consistency tables, the project would implement many of the pertinent goals, policies, guidelines, and recommendations. The cumulative projects listed in Table 6.0-1 are consistent with the existing City GP 2025, and even though the project has a few locations where the City's noise standard is exceeded due to construction noise, this does not represent a long-term cumulative impact. Therefore, the project impact is limited to a project level and **would not result in a cumulative impact** related to existing land use plans, designations, and policies.

6.4.9 Noise

The geographic extent for the analysis of cumulative impacts related to noise is generally limited to areas within approximately 0.25 mile of the project components and access routes. This is because noise impacts are generally localized, mainly within approximately 500 feet from any noise source; however, it is possible that noise from different sources within 0.25 mile of each other could combine to create a significant impact to receptors at any point between the projects. At distances greater than 0.25 mile, construction noise would be briefly audible and steady construction noise from the project would generally dissipate into quiet background noise levels. The assessment of cumulative noise impacts considered noise sources associated with other projects in the immediate vicinity of the project, as listed in Table 6.0-1.

On-site noise-generating activities associated with the project would include short-term construction and site clearing. Development activities related to project construction would involve site demolition, site grading, trenching, building construction, architectural coating, and paving. Construction equipment anticipated for project development includes only standard equipment that would be employed for any routine construction project of this scale. Construction hours would be limited to the hours as allowed per the City's Noise Code (City of Riverside 2007d). As shown in Table 4.9-6 of this EIR, construction activities associated with demolition of existing structures and construction of the project would exceed City Noise Code standards and have the potential to adversely affect adjacent noise-sensitive uses. The project would result in significant temporary noise impacts. The project could generate temporary noises that could result in a cumulatively significant impact if there are other sources of noise in the area from cumulative projects. The project would generate excessive (levels that cause discomfort to anyone of normal sensitivity) temporary noise, which in turn could exceed standards established in the local general plan or noise code, or applicable standards of other agencies. The combination of temporary noise from project and surrounding noise could exceed standards and result in a cumulatively **significant** impact.

Long-term operational noise associated with hospital operations includes noise from emergency vehicles (e.g., ambulance sirens, occasional helicopter arrivals and departures for

trauma cases), proposed parking structures and surface parking, and other on-site noise generators (such as emergency standby generators and heating, ventilation, and air conditioning (HVAC) equipment). Long-term operational noises also include project-generated traffic and overall traffic noise at the site. Noise from emergency vehicles would be relatively brief and periodic in nature and would cease once the emergency vehicles either enter or exit the area. Based on the noise analysis that was prepared for the existing heliport, the City determined in its Conditional Use Permit and Design Review cases that the heliport would not generate noise levels that would be detrimental to surrounding uses and would not be out of compliance with the City's Noise Code (City of Riverside 2010, 2007d). The instantaneous maximum sound levels generated by a car door slamming, an engine starting up, or cars passing by could be annoying to people at Calvary Presbyterian Church (the closest sensitive receptor). No surface parking or parking structures are proposed as part of Phase I of the project. However, surface parking or parking structures may be proposed during Phases IIa, IIb, or IIc of the project. Site-specific information regarding proposed parking areas is not available at this time. In the event that future surface parking or parking structures are proposed, a noise study shall be conducted to determine the maximum noise level for sensitive receptors. Specific details regarding emergency standby generators, the central plant, and HVAC equipment and their noise generation are not yet known; however, an acoustical specialist will review project construction-level plans to ensure that the equipment specifications and plans for HVAC, central plant, and emergency generator equipment incorporate measures that will reduce noise levels to below 60 dBA or less at the property line. Additional traffic volume associated with the project would have a less than significant impact, based on the Traffic Impact Analysis prepared for this document (Kimley-Horn 2014; see Appendix I to this EIR). The project would have a less than significant impact in regard to a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Cumulative impacts are unlikely, as the project and all cumulative projects are located in a highly urbanized area and all future projects would be required to adhere to the City's noise thresholds. As such, the project would not cumulatively increase noise levels in conjunction with the other reasonably foreseeable projects, and impacts would be **less than significant**.

Construction activities due to the project are not likely to expose people to an excessive generation of ground-borne vibration. With the anticipated construction equipment described in Section 4.9, Noise, the peak particle velocity is estimated to be 0.024 inches/second at 60 feet, which is the distance to the closest receptor (Calvary Presbyterian Church). Information from the California Department of Transportation (Caltrans) indicates that continuous vibrations with a peak particle velocity of approximately 0.1 inches/second begin to cause annoyance (Caltrans 2004). Other foreseeable projects within the vicinity of the RCH campus would not be close enough to create a combined excessive generation of ground-borne vibrations, as the closest cumulative project is more than 40 feet away and most of the

cumulative projects are 1 to 2 miles away from the project. Therefore, cumulative impacts associated with excessive ground-borne vibrations would be **less than significant**.

The RCH campus is located 1.43 miles east of the Flabob Airport, but is not located within Flabob Airport safety zones or other airport environs according to the City's Final GP PEIR (City of Riverside 2007b). An existing helistop/helipad is located approximately 13.5 feet above the top level of the hospital's parking structure along 14th Street. As described in Section 4.9 of this document, the City determined that the heliport would not generate noise levels that would be detrimental to surrounding uses or out of compliance with the City's Noise Code. The project would not subject people to excessive noise from air traffic. Although the project and other foreseeable projects could introduce more people to the area, they would not subject more people to air traffic noises, as this project is not in the affected area of the Flabob Airport. Therefore, cumulative impacts relating to excessive noise from a nearby airport or airstrip would be **less than significant**.

6.4.10 Traffic

The geographic extent for the analysis of cumulative traffic impacts is defined as the area within a 2-mile vicinity around the RCH campus. This scope is appropriate because traffic impacts caused by the project would be localized to this area as indicated in the Traffic Impact Analysis. The Traffic Impact Analysis identified 19 cumulative projects, as listed in Appendix I (the same projects as shown in Table 6.13-1). The cumulative projects are expected to generate a combined total of 10,222 daily trips on a typical weekday, with 689 trips forecasted during the AM peak hour and 975 trips during the PM peak hour. Project-related trips were added to the study area intersections and roadways to determine cumulative impacts of the project, as summarized below.

Year 2014 Cumulative Plus Phase I Traffic Conditions

The following four study intersections would be cumulatively impacted by Phase I of the project:

- 3. Brockton Avenue and 14th Street: PM Peak Hour – LOS D, 9.9-second delay
- 4. 14th Street and the RCH Entrance: PM Peak Hour – LOS D, 16.5-second delay
- 5. 14th Street and Magnolia Avenue / Market Street: PM Peak Hour – LOS D, 5.0-second delay
- 9. Brockton Avenue and the RCH Entrance: AM and PM Peak Hour – LOS F, 51.2-second and 702.8-second delay, respectively.

The four cumulatively impacted intersections are forecasted to operate at an acceptable LOS with implementation of mitigation measures, except for the intersection of 14th Street and the

RCH Entrance. The project would be expected to implement improvements to mitigate the project's traffic impacts and offset the cumulative impact of project traffic. Although cumulative impacts to three of the intersections would be reduced to less than significant by mitigation measures, no mitigation measures are available to reduce the impact at the intersection of 14th Street and the RCH Entrance. However, the 14th Street and RCH Entrance impact is internal to the site and does not affect the general circulation of area roadways, so it would not be considered a cumulative impact. Therefore, cumulative impacts to traffic would be **less than significant** under Year 2014 conditions**.**

Year 2035 Cumulative Plus Phases IIa, IIb, and IIc Traffic Conditions

The following five study intersections would be cumulatively impacted under Year 2035 Plus Phases IIa, IIb, and IIc Traffic Conditions:

- 3. Brockton Avenue and 14th Street: AM Peak Hour – LOS D, 14.6-second delay
- 4. 14th Street and RCH Entrance: PM Peak Hour – LOS C, 9.4-second delay
- 5. 14th Street and Magnolia Avenue / Market Street: PM Peak Hour – LOS E, 6.1-second delay
- 6. 14th Street and Lime Street: PM Peak Hour – LOS F, 6.0-second delay
- 9. Brockton Avenue and RCH Entrance: AM Peak Hour – LOS D, 7.3-second delay; PM Peak Hour – LOS F, 219.6-second delay.

With implementation of mitigation measures, the five impacted intersections are forecasted to operate at an acceptable LOS, except for the intersection of 14th Street and the RCH Entrance. The project would be expected to implement improvements to mitigate the project's traffic impacts and offset the cumulative impact of project traffic. Although cumulative impacts to four of the intersections would be reduced to less than significant by mitigation measures, no mitigation measures are available to reduce the impact at the intersection of 14th Street and the RCH Entrance. However, the 14th Street and RCH Entrance impact is internal to the site and does not affect the general circulation of area roadways, so it would not be considered a cumulative impact. Therefore, cumulative impacts to traffic would be **less than significant** under Year 2035 conditions**.**

Under Year 2035 Cumulative Plus Phases IIa, IIb, and IIc Traffic Conditions, the following roadway segments would be cumulatively impacted:

- 14th Street: Magnolia Avenue to Mulberry Avenue – LOS F
- Brockton Avenue: 14th Street to Tequesquite Avenue – LOS F
- Brockton Avenue: Tequesquite Avenue to Ramona Drive – LOS F.

The roadway segments along Brockton Avenue can be mitigated to less than significant levels through implementation of **MM TRA-7** and **MM TRA-8**. The roadway segment of 14th Street from Magnolia Avenue / Market Street to Mulberry Avenue will operate at LOS F during Phases IIa, IIb, and IIc. Because 14th Street at this segment is already built out to its ultimate GP 2025 configuration, and due to historic structures in the way of any further widening beyond what is in the GP 2025, the City does not plan to widen 14th Street at this intersection. Therefore, since widening cannot occur, which would be the only feasible measure to address the LOS on this roadway segment, impacts will remain cumulatively **significant** with no feasible mitigation measures. The cumulative impact to 14th Street from Magnolia Avenue / Market Street to Mulberry Avenue will require a Statement of Overriding Considerations.

Brockton Avenue Restriping Project

In addition to the cumulative projects analyzed as part of the traffic analysis, the City of Riverside has proposed to implement changes along Brockton Avenue, known as the Brockton Avenue Restriping Project, as a separate project unrelated to the RCH project. The Brockton Avenue project would involve restriping portions of Brockton Avenue between Mission Inn Avenue and 14th Street and between Tequesquite Avenue and Beatty Drive to convert Brockton Avenue from a four-lane undivided roadway to a three-lane roadway with one through lane in each direction and a center two-way left-turn lane. The restriping project would include dedicated right-turn lanes at major intersections, would provide bike lanes, and would involve signal timing and phasing improvements. A conceptual plan for the proposed restriping project, with Brockton Avenue as a four-lane roadway along the project frontage and transition to the three-lane cross section, is provided in Appendix I. Although the Brockton Avenue Restriping Project is separate and not related to the RCH project, the City would require RCH to make certain improvements prior to the completion of Phase I as a condition of project approval.

For Year 2014 Cumulative Conditions Plus Project, with the Brockton Avenue Restriping Project, all the study intersections along Brockton Avenue would operate at an acceptable LOS. However due to the delays, and given the City's thresholds for delays, two intersections would operate at unacceptable levels:

- 3. Brockton Avenue and 14th Street: AM Peak Hour, LOS D, 9.8-second delay
- 11. Brockton Avenue and Tequesquite Avenue: PM Peak Hour LOS D, 31.7-second delay

These impacts occur with the project's mitigation measures incorporated (which are needed to mitigate the project's impacts without the Brockton Avenue Restriping Project). Therefore, the impacts to these two intersections would take place after the RCH project mitigation measures have been incorporated. The impacts as a result of the Brockton Avenue Restriping Project would be the

responsibility of the City should it move forward with this separate project, and no further mitigation is required by the project. This would not be considered a cumulative impact from the project.

For Year 2035 Cumulative Conditions Plus Project, the analysis shows that with the Brockton Avenue Restriping Project, only the intersection of Brockton Avenue and Tequesquite Avenue remains over the delay threshold in the PM peak hour; all other study intersections along Brockton Avenue would operate at an acceptable LOS. Since the analysis that shows this impact already includes mitigation measures being incorporated, the impact to the Brockton Avenue and Tequesquite Avenue remains after feasible RCH project mitigation measures have been incorporated. Therefore, it would be responsibility of the City to address the impacts associated with the Brockton Avenue Restriping Project, should they move forward with the Brockton Avenue project. No further mitigation is required of the RCH project and this would not be considered a cumulative impact as a result of the project.

Congestion Management Program

The Riverside County Congestion Management Program (CMP) has an adopted LOS standard of E (RCTC 2011). Both the County and City of Riverside GPs require an LOS that conforms to the CMP standards. All cumulative impacts to key study intersections would be reduced to an acceptable LOS after implementation of mitigation measures; however, cumulative impacts to the following roadway segment would remain significant since no feasible mitigation is available for these impacts:

- 14th Street: Brockton Avenue to Magnolia Avenue / Market Street – LOS F.

Therefore, cumulative impacts related to conflicts with the CMP are considered **significant**.

Public Transit, Bicycle, or Pedestrian Facilities

As described in Section 4.10, Traffic, the project would improve the accessibility and safety of transit, bicycle, and pedestrian facilities on and around the campus. The project would not conflict with adopted policies, plans, or programs regarding these transportation modes in or around the project site. In addition, mitigation measures **MM-TRA-9** and **MM TRA-10** would be implemented to reduce potential impacts related to transit, bicycle, and pedestrian facilities. For these reasons, the project would result in **less than significant** cumulative impacts to the pedestrian, bicycle, or transit network within and surrounding the project site.

6.4.11 Utilities and Service Systems

The geographic extent for the analysis of cumulative impacts associated with utilities consists of the immediate surrounding area because utilities are provided by local

jurisdictions or districts. Cumulative impact analysis for utilities has been conducted using the projects in Table 6.0-1.

The project will connect to the existing stormwater system and in addition to the existing infiltration system, another system will be built in the northern portion of the site. Since development of the project site does not involve replacing pervious surfaces with impervious surfaces, but involves replacing existing impervious surfaces, such as surface parking lots, with new impervious surfaces, such as parking structures, the project is not expected to cause a substantial change in the total surface runoff from the site. The project would not require the construction of new stormwater drainage facilities or expansion of existing facilities. Other projects within the vicinity of the projects would need to be evaluated on an individual basis in regard to stormwater drainage facilities. Existing stormwater conveyance facilities exist in the area and combined with other projects, the project is not expected to cause a significant impact related to stormwater runoff since all projects have to be designed to meet stormwater capacity. The project would not substantially change total surface runoff and would not combine with surrounding projects to contribute to significant cumulative impacts; therefore, cumulative impacts would be **less than significant**.

Solid waste pickup will be serviced by Waste Management and be taken to the Robert A. Nelson Transfer Station, which is then taken to the Badlands Landfill and other County landfills in the area. As discussed in Section 4.11, Utilities and Service Systems, of this document, the amount of solid waste generated and disposed of in nearby landfills during operation of the project is expected to be within the permitted capacity of the landfills. The project will participate in the City's efforts to comply with the California Integrated Waste Management Act (Assembly Bill 939) under the California Public Resources Code and ensure that at least 75% of the waste stream is diverted away from the Badlands Landfill.

On a cumulative basis, the surrounding area has been built out and the utilities for the land uses have been considered and planned for in the City's GP 2025. The project site is consistent with the land use assumptions in the City's GP 2025; therefore, the utilities needed to supply the project have been considered in the City's Final GP 2025 PEIR, which found adequate services. Prior to building permit issuance, a site plan that indicates the location and capacity of solid waste and recycling collection and loading areas must be submitted to the Riverside County Waste Management Department for review and approval (RCWMD 2013). Therefore, all foreseeable projects would need to submit this information prior to development and cumulative impacts would be considered in regard to landfill capacity. As such, cumulative impacts to utilities and service systems would be **less than significant**.

6.4.12 Energy Conservation

The cumulative analysis for energy conservation considers the projects listed in Table 6.0-1 and assess the project's compliance with the electricity, natural gas, and petroleum demands as projected by the City's Final GP 2025 PEIR (City of Riverside 2007b).

The project would result in an increased demand for energy resources, as discussed in Section 4.12, Energy Conservation, of this EIR. Hospitals are not generally subject to energy-efficiency requirements such as those specified in Title 24 because they are required to comply with other state laws related to ventilation and air exchanges, resulting in increased energy needs.

In order to partially offset these increased energy needs, the project has incorporated sustainable features into the project design to reduce its energy use (refer to Table 4.12-1, Project Design Features – Energy Reduction, in Section 4.12 of this EIR). In addition, the building envelope, HVAC, lighting, and other systems, such as electric motor equipment, shall be designed to maximize energy performance. RCH will incorporate transportation demand measures in order to help achieve the required vehicle reduction targets from the City's Transportation Demand Management Regulations. And although the project would see an increase in vehicle trips, vehicles associated with the project are expected to use less petroleum due to advances in fuel economy over time. Given these considerations, the project would not contribute to inefficient or wasteful consumption of petroleum. The project would not exceed electricity, natural gas, or petroleum demands as projected by the City's Final GP 2025 PEIR (City of Riverside 2007b). Other projects within the vicinity need to be evaluated on an individual basis to determine their energy demands and whether they would exceed the City's projected demands. The project would not have a cumulatively considerable effect on energy supplies due to the use of excessive amounts of electricity, natural gas, or petroleum; therefore, cumulative impacts would be **less than significant**.

6.5 REFERENCES

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SCAQMD (South Coast Air Quality Management District). 2012. *2012 Air Quality Management Plan*. Adopted December 7, 2012. http://www.aqmd.gov/aqmp/2012aqmp/index.htm.

CHAPTER 7.0
PROJECT ALTERNATIVES

7.1 INTRODUCTION

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, environmental impact reports (EIRs) are required to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (14 CCR 15126.6(a)). The EIR "must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation" (14 CCR 15126.6(a)). This alternatives discussion is required even if these alternatives "would impede to some degree the attainment of the project objectives, or would be more costly" (14 CCR 15126.6(b)).

The inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact "feasible." The final decision regarding the feasibility of alternatives lies with the decision maker for a given project, who must make the necessary findings addressing the potential feasibility of an alternative, including whether it meets most of the basic project objectives or reduces the severity of significant environmental effects per CEQA (California Public Resources Code, Section 21081; see also 14 CCR 15091).

7.2 PROJECT OBJECTIVES

In developing the alternatives to be addressed in this chapter, consideration was given to the ability to meet the basic objectives of the Riverside Community Hospital (RCH) Specific Plan Expansion Project (project) and eliminate or substantially reduce the identified significant environmental impacts. As stated in Chapter 2.0 of this Draft EIR, the project objectives against which the alternatives were analyzed include the following:

- Demolish, rehabilitate, and construct new structures within the RCH campus in order to comply with the mandated requirements of Senate Bill 1953, the Alfred E. Alquist Seismic Act, to replace unsafe applicable hospital facilities by the year 2030.
- In order to meet the requirements of Nonstructural Performance Category 5 by 2030, construct facilities that provide a self-sustaining hospital that would provide water and wastewater holding tanks sufficient for 72 hours in the event of a disaster.
- Develop a comprehensively planned, integrated medical campus within the existing hospital campus boundaries that includes an approximately 600-hospital-licensed bed buildout capacity, with acute care services, medical offices, and ancillary services for the community and new employment opportunities in downtown Riverside.

- Increase hospital operational efficiencies by providing a variety of services, such as cancer care, ER/trauma, imaging, neurology and neurosurgery, a center for surgical weight loss, transplant programs, labs, and medical office space in a central campus-like setting.
- Provide space for research and medical education facilities in cooperation with the Medical School at University of California, Riverside.
- Provide a roadmap to guide future development plans on the campus by providing design and development standards to be implemented by future streamlined entitlement processes for future campus expansions.

Pursuant to the guidelines stated above, as well as the project objectives, a range of alternatives to the project are considered and evaluated in this EIR. These alternatives were developed by the City of Riverside (City) in the course of project planning, environmental review, and public input. In order to summarize these project alternatives, as suggested in CEQA Section 15126.6(d), a matrix has been prepared to summarize and compare the impacts of each project alternative (see Table 7.0-4, Comparison of Alternatives)**.**

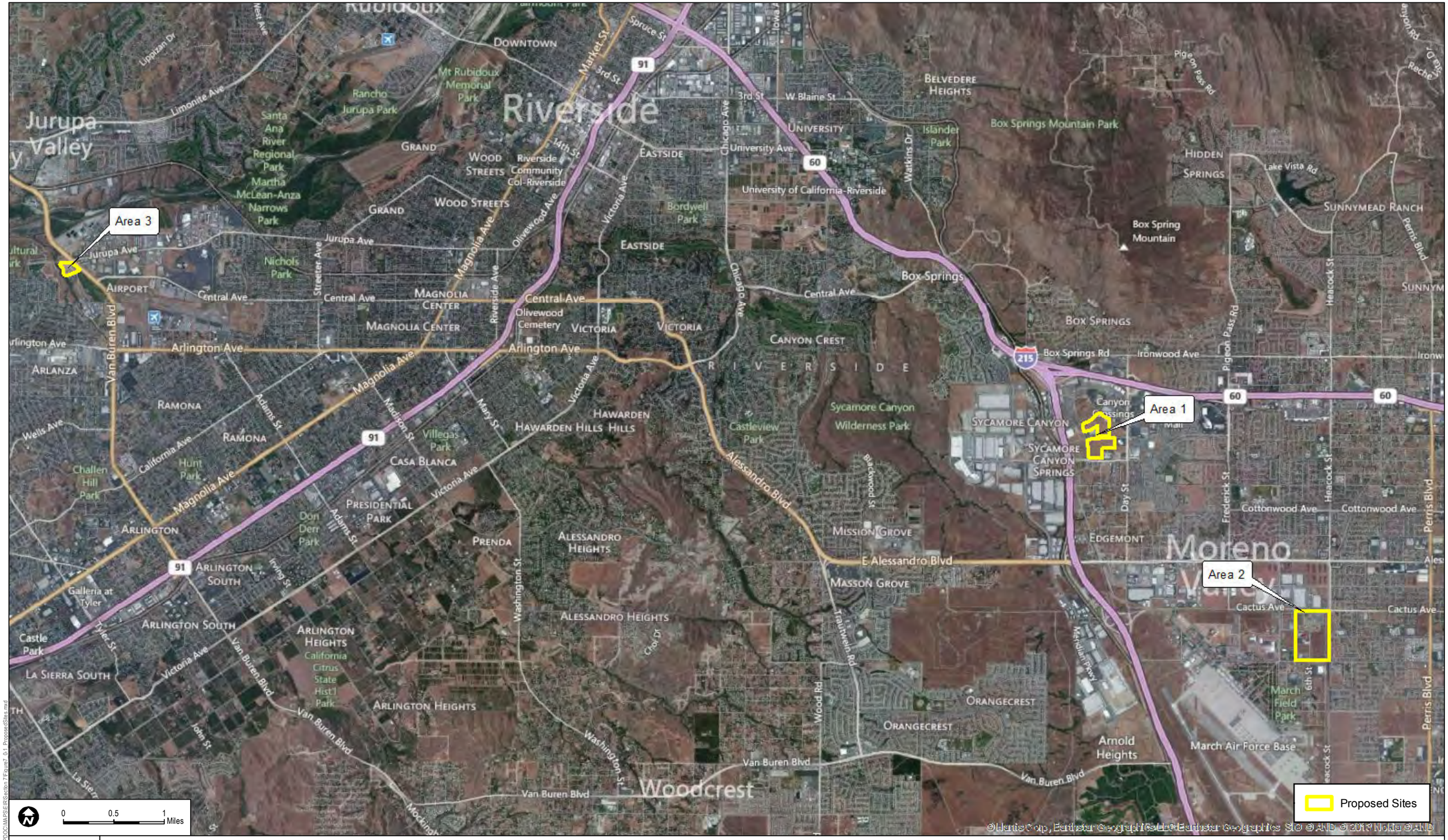
7.3 ALTERNATIVES CONSIDERED BUT REJECTED

The following discussion presents information on an alternative to the project that was considered but rejected. This alternative is not discussed in further detail and has been eliminated from further consideration.

Alternative Site Location

In accordance with CEQA Guidelines, Section 15126.6(f)(2), the City attempted to identify a feasible alternative off-site location within the project area that could be available for the proposed hospital development. Per CEQA Guidelines, Section 15126.6(f)(2)(A), the key question and first step in analysis of the off-site location is whether any of the significant effects of the project would be avoided or substantially lessened by moving the project to another location.

Arguably, RCH could assemble, lease, or purchase land for certain components of the project, such as medical office space and/or additional bed towers as proposed in the Specific Plan (SP). After a review of available open spaces of approximately 20 acres (similar to the project site size) around the City, a few sites where a hospital could be located were identified. These three sites are depicted on Figure 7.0-1.



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SOURCE: BING 2013

FIGURE 7.0-1

Possible Alternative Site Locations

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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One location (Area 1) would be in the Canyon Springs area of the City, located generally around Valley Springs Drive and Gateway Drive on the east side of town near the City of Moreno Valley. There are undeveloped areas that could serve as a hospital site; however, the campus would not be contiguous as there are existing roadways that would divide the site in two. Additionally, this area is planned for commercial and business park uses; therefore, a hospital use would not necessarily be compatible with the vision the City has for this area, economically. Furthermore, this location would not serve the Downtown Riverside community for jobs or hospital service.

Another potential site for a hospital would be in the March Life Care center located within the March Air Reserve Base (see Area 2 on Figure 7.0-1). This location has already been earmarked for a hospital and medical campus use; however, it is already being sought for use by other healthcare companies and it would be difficult for RCH to place a 22-acre hospital site along with the other healthcare uses being planned for in that complex. Additionally, this site is not located within the City of Riverside and would not serve the Downtown Riverside community for jobs or hospital service.

A third potential alternative site location would be vacant land near the Riverside Municipal Airport (see Figure 7.0-1, Area 3). This site would be closer to the downtown area than the other two alternative sites mentioned above; however, airport land use restrictions related to flight safety zones would prohibit the hospital campus from being located here. Additionally, relocating structures to an alternate site would not meet the project objective of constructing new structures on the RCH campus.

In addition to the fact that the alternative sites mentioned above would not be feasible, it is important to note that RCH currently owns the entire project site and has control over the types of land use development, provided it meets City codes. RCH does not own any of the alternative sites and it is not guaranteed that RCH could acquire an alternative site in the future; nor is there any guarantee that the hospital use would be allowed by the City on any of those sites.

Under this alternative-site scenario, the existing buildings could still operate on the current RCH site. Even with an alternative site to support the uses anticipated in the SP, the existing buildings on the site would remain. Additionally, the alternative site would not alleviate noncompliant seismic concerns associated with existing hospital buildings and would not meet seismic retrofit requirements as required by Senate Bill (SB) 1953.

The availability of an alternate site does not in and of itself reduce impact potential. It is expected that developing a similar project at an alternative site would result in a similar array of project impacts and would simply transfer the impact potential to areas surrounding the alternate site location, requiring a similar level of mitigation to reduce identified impacts to less than

significant levels. Regardless of location, the hospital use would still generate vehicle trips and result in the same air emissions from construction and operation; the alternative site would not lessen these impacts. In fact, depending on the location, the traffic impacts could be worse than those at the current site. Because only part of the hospital would be located on another site, this alternative could result in greater numbers of automobile trips than the project, since this would force doctors/physicians to travel between the medical offices and main hospital campus. Therefore, an alternative site for the RCH Specific Plan Expansion Project could result in a higher number of automobile trips and greater impacts when compared to the proposed campus-oriented project. Additionally, it does not appear that RCH can reasonably acquire, control, or otherwise have access to other sites in the area that would meet the project objectives, especially the seismic upgrade requirements, keeping employment opportunities in downtown Riverside, and providing hospital services in a central campus-like setting. For these reasons, an alternate site location would not necessarily be preferred over the project site. Therefore, off-site locations capable of accommodating the entire project are considered infeasible, and no off-site location alternatives were carried forward in this analysis.

7.4 ALTERNATIVES UNDER CONSIDERATION

This section discusses three alternatives to the project, including the No Project (No Build) Alternative. The No Project Alternative, which is a required element of an EIR pursuant to Section 15126.6(e) of the CEQA Guidelines, examines the environmental effects that would occur if the project were not to proceed. The other alternatives are discussed as part of the "reasonable range of alternatives" selected by the lead agency. The alternatives addressed in this section are listed below, followed by a more detailed discussion of each:

- No Project Alternative – Continued Hospital Use
- Alternative 1 – Reduced Licensed Beds
- Alternative 2 – One Hospital Bed Tower Development.

7.4.1 No Project Alternative – Continued Hospital Use

The No Project Alternative assumes that the project site would not be developed and the existing hospital facilities would remain and continue in operation. The RCH SP would not take effect under the No Project Alternative and the RCH campus would remain in the Downtown Specific Plan (DSP)–Healthcare (HC) District. The RCH would continue to operate under a conditional use permit (CUP) that dates back to the 1960s. Although project-level impacts would be avoided, without the project some of the hospital facilities would not meet the seismic retrofit requirements required by SB 1953. Specifically, Building A would not be allowed to house acute care services beyond January 1, 2020, and Buildings B and D would not be allowed to house acute care services beyond January 1, 2030. In addition to meeting the requirements of SB 1953,

the overall hospital expansion is needed to improve access to healthcare for a growing population and to modernize hospital facilities. Under the No Project Alternative, the acute care services at RCH would be diminished because Buildings A, B, and D would no longer be used for such use. This alternative would not meet the project objectives; however, CEQA requires the alternative to be analyzed.

Aesthetics

As discussed in Section 4.1, Aesthetics, with mitigation incorporated the project would have less than significant impacts associated with scenic vistas of Mount Rubidoux and the San Bernardino Mountains. With mitigation, the project would also have less than significant impacts on scenic resources. Impacts to visual character would also be less than significant; however, viewers along perimeter streets and within the site and surrounding properties would experience views of a more intensely developed hospital campus with implementation of the project. Impacts associated with light and glare would be mitigated to a less than significant level.

Under the No Project Alternative, the RCH campus would remain in its current condition and no development would occur. Views of the campus and from the campus would remain unchanged as a result of the No Project Alternative. Under the No Project Alternative the SP would not be implemented and future expansion plans for the campus would not adequately address specific development and design regulations. However, because no development would occur as a result of this alternative, impacts would be reduced compared to the project.

Air Quality

As discussed in Section 4.2, Air Quality, the project would not conflict with or obstruct implementation of the applicable air quality plan nor would construction impacts associated with emissions of particulate matter 10 microns or less in diameter (PM_{10}) exceed the significance threshold. Although mitigation measures would be implemented to reduce potential impacts, operational impacts associated with PM_{10} emissions would remain significant and unavoidable. Therefore, because no additional emissions would occur under the No Project Alternative, this alternative would have reduced impacts compared to the project.

Biological Resources

As described in Section 4.3, Biological Resources, the existing and future ornamental landscaping, including mature trees, throughout the project site has the potential to provide nesting habitat for birds. Implementation of a mitigation measure requiring nesting bird surveys during each phase of the project prior to ground-disturbing activities would reduce potential impacts to less than significant. The No Project Alternative would not result in any direct impacts to biological resources since there would be no construction involved.

Therefore, impacts to biological resources would be reduced under this alternative compared to the project.

Cultural Resources

As described in Section 4.4, Cultural Resources, there are a number of on- and off-site historical buildings and cultural resources. The project would need to be particularly sensitive to these resources when development of each phase is in close proximity to the resources. The project also includes the demolition of two buildings (Building N and Building A) that were found to not be significant. The mitigation measures provided in Section 4.4 would reduce potential impacts to a less than significant level and no significant adverse impacts would remain after mitigation. The No Project Alternative would not involve disturbing any subsurface material that could potentially support or impact cultural resources. The No Project Alternative would also not involve demolitions of Building N and Building A; therefore, the No Project Alternative would have reduced impacts compared to the project.

Greenhouse Gas Emissions

As discussed in Section 4.5, Greenhouse Gas Emissions, there would be no direct construction-related greenhouse gas (GHG) emission impacts associated with the No Project Alternative since the site would remain in its current state and no construction would occur. The RCH campus would continue to operate under existing conditions and GHG emissions would continue to be the same. Therefore, because no additional emissions would occur under the No Project Alternative, impacts would be lessened compared to the project.

Hazards and Hazardous Materials

As discussed in Section 4.6, Hazards and Hazardous Materials, as part of the project, prior to construction of Phases I, IIa, IIb, and IIc, RCH will prepare/update a hazardous substance management, handling, storage, disposal, and emergency response plan to be followed during construction. This plan will ensure adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, and will ensure that construction of the project will not create a significant hazard to the public or the environment, including nearby schools. In addition to the emergency response plan, implementation of mitigation measures would further reduce potential impacts associated with hazards and hazardous materials as a result of the project to a less than significant level.

The No Project Alternative would not result in any potential increase in hazards or hazardous materials used during construction, since no construction would occur. Similarly, the No Project Alternative would not introduce a greater number of employees, patients, and visitors to potential hazards or hazardous materials during operation since nothing would be built as a result of this

alternative. Therefore, the No Project Alternative would have reduced impacts on hazards and hazardous materials compared to the project.

Hydrology/Water Quality

As discussed in Section 4.7, Hydrology/Water Quality, the project would be in compliance with all applicable federal, state, and local rules and regulations regarding water quality and hydrology. In addition, implementation of best management practices (BMPs) described in Chapter 2.0, Project Description, would further reduce potential impacts associated with water quality and hydrology to a less than significant level. Impacts related to hydrology and water quality were found to be less than significant through compliance with existing regulations and as a result of project design features.

The No Project Alternative would not result in any direct impacts related to hydrology and water quality since no construction would occur and there would be no increase in runoff from the site. No construction or development activities would take place that could generate an increase in potential pollutants; therefore, the No Project Alternative would have reduced impacts compared to the project.

Land Use and Planning

As described in Section 4.8, Land Use and Planning, the project includes a City General Plan (GP) 2025 amendment to designate the RCH SP area as RCH SP and replace the current DSP land use designation. The project also includes a rezone to designate the RCH SP area as RCH SP in the City's Zoning Map. The proposed RCH SP land use designation and zoning would allow for implementation of the RCH SP and associated development standards, which are necessary to meet the increasing demand for hospital-related services and amenities. The RCH SP will make future development more streamlined in that it will supersede existing entitlements, outline existing uses and future uses, and lay out a cohesive set of guidelines that will provide City staff, RCH, and the public with a clear understanding of how growth and development will occur at the site.

Under the No Project Alternative, the SP would not be implemented and future expansion plans for the campus would not adequately address specific development and design regulations. Under the No Project Alternative, existing GP 2025 land use and zoning designations would remain and project objectives would not be met. Therefore, the project would have reduced impacts compared to the No Project Alternative.

Noise

As discussed in Section 4.9, Noise, the project would result in significant noise impacts even with mitigation measures incorporated. Noise from construction equipment would be considered strongly perceptible to mildly unpleasant. Construction-related impacts of the project would be temporary and mitigation measures would reduce potential impacts; however, noise impacts would not be completely reduced below the City's standards.

The No Project Alternative would not result in any construction-related noise since no construction would occur. The No Project Alternative would not contribute to an increase in ambient noise levels. The No Project Alternative would avoid impacts related to excessive noise levels compared to the project because no new noise sources or sensitive receptors would be developed. Therefore, the No Project Alternative would have reduced impacts compared to the project.

Traffic

As described in Section 4.10, Traffic, the project would not conflict with adopted policies regarding public transit, bicycle, or pedestrian facilities, nor would the project result in a change in air traffic patterns. The project would, however, have a significant internal impact at the driveway of 14th Street and the RCH Entrance as a result of the project, and no feasible mitigation has been identified since this impact occurs within the internal site of RCH and is not affecting circulation on local roads. Additionally, the project would conflict with the applicable congestion management plan due to Phase IIa, IIb, and IIc impacts on roadway segment operations along 14th Street, Magnolia Avenue to Mulberry Avenue (resulting in level of service (LOS) F). No feasible mitigation measures are available to mitigate the impacts along 14th Street, Magnolia Avenue to Mulberry Avenue, and this roadway segment would require a Statement of Overriding Considerations.

Although some intersection and roadway operations currently exceed the LOS threshold without the project, no additional intersections or roadways would be impacted as a result of the No Project Alternative. Therefore, the No Project Alternative would have reduced impacts compared to the project.

Utilities and Service Systems

As discussed in Section 4.11, Utilities and Service Systems, the project would require the construction of new stormwater drainage facilities. One infiltration system would be constructed near the northeast corner of Brockton Avenue and Tequesquite Avenue that would have the capacity to treat runoff from Phase I, Building O, Building P, Building N, and Phases IIb and IIc. A second infiltration system would be constructed prior to Phase IIa at Outfall 2. The project's

potential impacts associated with landfill capacity would be considered less than significant. Additionally, the project would comply with all state and local statutes and regulations related to solid waste during construction and operation of all phases. There are no federal regulations or statutes related to solid waste that apply to the project.

Under the No Project Alternative, there would be no additional solid waste being transferred to the local landfill during construction or demolition since these activities would not take place. Additionally, no new stormwater drainage facilities would be constructed as part of the No Project Alternative. Furthermore, the project would increase the amount of solid waste, which would be generated by the addition of new hospital bed towers. Therefore, since no new buildings, which could generate solid waste, would be constructed as a result of the No Project Alternative, this alternative would have reduced impacts on utilities and service systems compared to the project.

Energy Conservation

As concluded in Section 4.12, Energy Conservation, the project would not contribute to inefficient or wasteful consumption of electricity, natural gas, or petroleum and impacts related to conflicts with existing energy standards would be less than significant. Additionally, the project would not place significant demand on local or regional energy supplies or require a substantial amount of additional capacity. However, there would be an increase in the amount of electricity, natural gas, and petroleum used during construction and operation of the project, and additional energy supplies would be needed to accommodate the growth in future phases.

Since the No Project Alternative would not increase the use of energy, natural gas, or petroleum or require additional energy supplies because no construction would occur under this alternative, impacts would be reduced compared to the project.

Relationship to Project Objectives and Feasibility

Under the No Project Alternative, the existing hospital facilities would continue operation. This alternative would not result in new construction. Table 7.0-1 provides a list of the project objectives and whether or not the alternative meets each objective.

Table 7.0-1
Summary of No Project Alternative Success at Meeting Project Objectives

Project Objective	Alternative Meets Objective?
1. Demolish, rehabilitate, and construct new structures within the RCH campus in order to comply with the mandated requirements of SB 1953, the Alfred E. Alquist Seismic Act, to replace unsafe applicable hospital facilities by the year 2030.	No. Under the No Project Alternative, no buildings would be demolished, rehabilitated, or constructed. Buildings would not receive the required seismic upgrade required by SB 1953 and unsafe conditions would continue to persist within these buildings.

Table 7.0-1
Summary of No Project Alternative Success at Meeting Project Objectives

Project Objective	Alternative Meets Objective?
2. In order to meet the requirements of Nonstructural Performance Category 5 by 2030, construct facilities that provide a self-sustaining hospital that would provide water and wastewater holding tanks sufficient for 72 hours in the event of a disaster.	No. No construction would take place as a result of the No Project Alternative and therefore this alternative would not meet the requirements for hospitals to provide self-sustaining water and wastewater holding tanks sufficient for 72 hours.
3. Develop a comprehensively planned, integrated medical campus within the existing hospital campus boundaries that includes an approximately 600-hospital-licensed bed buildout capacity, with acute care services, medical offices, and ancillary services for the community and new employment opportunities in downtown Riverside.	No. Under the No Project Alternative there would not be construction of any hospital bed tower and no new services or employment opportunities would be available in downtown Riverside. The No Project Alternative would not provide for future growth within the City and the hospital would remain in its existing condition.
4. Increase hospital operational efficiencies by providing a variety of services, such as cancer care, ER/trauma, imaging, neurology and neurosurgery, a center for surgical weight loss, transplant programs, labs, and medical office space in a central campus-like setting.	No. The RCH campus would not expand hospital operational efficiencies under the No Project Alternative. There would not be an increase in the variety of services offered at RCH.
5. Provide space for research and medical education facilities in cooperation with the Medical School at University of California, Riverside.	No. Since no construction would occur as part of the No Project Alternative, there would not be any space created for research and medical education facilities in cooperation with the Medical School at the University of California, Riverside.
6. Provide a roadmap to guide future development plans on the campus by providing design and development standards to be implemented by future streamlined entitlement processes for future campus expansions.	No. Under the No Project Alternative, the RCH SP would not be implemented and the RCH campus would continue to be under the jurisdiction of the GP 2025 and the DSP–HC District. The RCH campus would still operate under a 1960s CUP and future development would require approval from the City.

While this alternative would result in a reduction of environmental impacts, this alternative would not meet any of the project objectives. Therefore, this alternative has been eliminated from further consideration and is determined to be not feasible.

7.4.2 Alternative 1 – Reduced Licensed Beds

Alternative 1 proposes to reduce the number of hospital beds on the campus by 25%, from 600 licensed beds at project buildout to 450 licensed beds. Under this alternative, it is assumed that the height and size of the proposed new buildings would be reduced in size by 25% since there would not need to be as many hospital beds. Fewer vehicle trips would be generated as a result of this alternative; therefore, air quality and traffic impacts would be expected to be reduced. By reducing the intensity of the use on the site, impacts under this alternative could be reduced compared to the project.

Aesthetics

As discussed in Section 4.1, Aesthetics, with mitigation incorporated, the project would have less than significant impacts associated with scenic vistas of Mount Rubidoux and the San Bernardino Mountains. With mitigation, the project would also have less than significant impacts on scenic resources. Impacts to visual character would also be less than significant; however, viewers along perimeter streets would experience views of a more intensely developed hospital campus with implementation of the project. Compliance with development standards and design guidelines outlined in the RCH SP (during Phases IIa, IIb, and IIc) would further reduce potential impacts.

Under Alternative 1, construction of Phases I, IIa, IIb, and IIc would still occur and mitigation measures similar to those for the project would be required for this alternative. Construction under Alternative 1 would also adhere to the development standards and design guidelines outlined in the RCH SP. However, since this alternative would result in a 25% reduction in building height, massing, and scale compared to the project, the aesthetic impacts of Alternative 1 may be slightly reduced compared to the project.

Air Quality

As discussed in Section 4.2, Air Quality, the project would not conflict with or obstruct implementation of the applicable air quality plan, nor would construction impacts associated with PM_{10} emissions exceed the significance threshold. Although mitigation measures would be implemented to reduce potential impacts, operational impacts associated with PM_{10} emissions due to vehicle trips would remain significant and unavoidable.

Alternative 1 would still result in air emissions that would be generated during construction and operation. Construction of this alternative would still require grading, site preparation, and demolition of buildings, all of which generate air emissions. This alternative would also result in fewer vehicle trips generated. Nevertheless, air quality impacts under Alternative 1 would be considered significant and unavoidable due to the vehicle trips and the lack of feasible mitigation to reduce emissions from those trips, even though a reduction would occur. Impacts from air quality for Alternative 1 are considered slightly reduced compared to those from the project, but still significant and unavoidable.

Biological Resources

As described in Section 4.3, Biological Resources, the existing and future ornamental landscaping, including mature trees, throughout the project site has the potential to provide nesting habitat for birds. Implementation of a mitigation measure requiring nesting bird surveys

during each phase of the project prior to ground-disturbing activities would reduce potential impacts to less than significant.

Under Alternative 1, construction of Phases I, IIa, IIb, and IIc would still occur and similar mitigation measures would be required. Overall, impacts to biological resources would be the same as those from the project.

Cultural Resources

As described in Section 4.4, Cultural Resources, there are a number of on- and off-site historical buildings and cultural resources. The project would need to be particularly sensitive to these resources when development of each phase is in close proximity to the resources. The project also includes the demolition of two buildings (Building N and Building A) that were found to not be significant. The mitigation measures provided in Section 4.4 would reduce potential impacts to a less than significant level and no significant adverse impacts would remain after mitigation.

Under Alternative 1, demolition of Buildings N and A would still be needed, and similar amounts of grading and ground disturbance would occur as for the project. Alternative 1 would have site plans similar to those of the project; the only difference between the two projects would be the change in building scale and the reduction in licensed beds. Therefore, impacts to cultural resources would be similar and would not be substantially reduced as a result of Alternative 1.

Greenhouse Gas Emissions

As described in Section 4.5, Greenhouse Gas Emissions, operational impacts associated with implementation of the project would be less than significant. The City of Riverside has not adopted a GHG reduction plan, as specified in California Code of Regulations, Title 14, Section 15183.5(b), that would apply to the GHG emissions associated with the project; however, the City does have adopted policies and goals related to GHG emission reductions in its GP 2025 and Green Action Plan. Additionally, the SCAQMD has not considered thresholds of significance for GHG emissions for institutional projects such as this type of project. Further, the SCAQMD has not formally adopted these thresholds of significance for GHG emissions (refer to Section 4.5.2 of the EIR). Thus, there are no numeric emission-based thresholds by which the City could evaluate whether the Alternative 1 project emissions would exceed a threshold of significance as indicated in Section 15064.4(b)(2) of the CEQA Guidelines. However, the Alternative 1 project's GHG impacts would be consistent with local plans and policies, as well as incorporating the same project design features listed in Table 4.5-3 of the EIR. Therefore, impacts to GHG emissions under Alternative 1 would be the same as those from the project.

Hazards and Hazardous Materials

As discussed in Section 4.6, Hazards and Hazardous Materials, as part of the project, prior to construction of Phases I, IIa, IIb, and IIc, RCH will prepare/update a hazardous substance management, handling, storage, disposal, and emergency response plan to be followed during construction. This plan will ensure adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, and will ensure that construction of the project will not create a significant hazard to the public or the environment, including nearby schools. In addition to the emergency response plan, implementation of mitigation measures would further reduce potential impacts associated with hazards and hazardous materials as a result of the project to a less than significant level.

Under Alternative 1, the same potential hazards would exist and preparation of an emergency response plan would still be required. However, since the reduction in beds would also decrease the amount of patients, visitors, and employees, Alternative 1 would expose fewer people to potentially hazardous conditions. Therefore, impacts would be slightly reduced compared to the project.

Hydrology/Water Quality

As discussed in Section 4.7, Hydrology/Water Quality, the project would be in compliance with all applicable federal, state, and local rules and regulations regarding water quality and hydrology. In addition, implementation of BMPs described in Chapter 2.0, Project Description, would further reduce potential impacts associated with water quality and hydrology to a less than significant level. Impacts related to hydrology and water quality for the project were found to be less than significant through compliance with existing regulations and as a result of project design features.

Alternative 1 would also be required to comply with all applicable federal, state, and local regulations regarding water quality and hydrology and the reduction in the number of beds would not remove these requirements. Similar BMPs would also be implemented to further reduce potential impacts. Therefore, Alternative 1 would have the same impacts on water quality and hydrology as the project.

Land Use and Planning

As described in Section 4.8, Land Use and Planning, the project includes a GP 2025 amendment to designate the RCH SP Area as RCH SP and replace the current DSP land use designation. The project also includes a rezone to designate the RCH SP Area as RCH SP in the City's Zoning Map. The proposed RCH SP land use designation and zoning would allow for implementation of the RCH SP and associated development standards, which are necessary to meet the increasing

demand for hospital-related services and amenities. The RCH SP will make future development more streamlined in that it will supersede existing entitlements, outline existing uses and future uses, and lay out a cohesive set of guidelines that will provide City staff, RCH, and the public with a clear understanding of how growth and development will occur at the site.

Similar to the project, the RCH SP would still be implemented under Alternative 1. This alternative would still require a GP 2025 land use and zoning designation amendment. Therefore, Alternative 1 would have the same land use impacts as the project.

Noise

As discussed in Section 4.9, Noise, the project would result in significant noise impacts even with mitigation measures incorporated. Noise from construction equipment would be considered strongly perceptible to mildly unpleasant. Construction-related impacts of the project would be temporary and mitigation measures would reduce potential impacts; however, noise impacts would not be completely reduced below City standards.

Under Alternative 1, 25% less construction would occur, which would reduce the amount of construction noise. However, construction would still occur near sensitive land uses during each phase of development and, as in the project, mitigation measures would be applied, but would not fully reduce potential noise impacts. Therefore, impacts as a result of Alternative 1 would be similar to the project.

Traffic

As described in Section 4.10, Traffic, the project would not conflict with adopted policies regarding public transit, bicycle, or pedestrian facilities, nor would it result in a change in air traffic patterns. The project would, however, have a significant internal impact at the driveway of 14th Street and the RCH Entrance as a result of the project, and no feasible mitigation has been identified since this impact occurs within the internal site of RCH and is not affecting circulation on local roads. Additionally, the project would conflict with the applicable congestion management plan due to Phase IIa, IIb, and IIc impacts on roadway segment operations along 14th Street, Magnolia Avenue to Mulberry Avenue (LOS F). No feasible mitigation measures are available to mitigate the impacts along 14th Street, Magnolia Avenue to Mulberry Avenue, and this roadway segment would require a Statement of Overriding Considerations.

Under Alternative 1, the amount of traffic coming and going from the RCH campus would be reduced by 25%, proportionate with the reduction in beds. There would be a decrease in the number of patients, employees, and visitors the hospital could hold, which would lead to a decrease in traffic. Therefore, impacts associated with traffic as a result of Alternative 1 would be reduced compared to the project.

Utilities and Service Systems

As discussed in Section 4.11, Utilities and Service Systems, the project would not require the construction of new stormwater drainage facilities or expansion of existing facilities. The project's potential impacts associated with landfill capacity would be considered less than significant. Additionally, the project would comply with all state and local statutes and regulations related to solid waste during construction and operation of all phases. There are no federal regulations or statutes related to solid waste that apply to the project.

During construction, the amount of solid waste generated by this alternative from demolition activities would be similar to that generated under the project because the same buildings would need to be demolished under either scenario (Building N and Building A), but the construction waste might be slightly reduced since with the reduction in beds, there would be less square footage of buildings needed. Additionally, since this alternative would have 25% fewer beds than the project, the amount of solid waste generated during operation would also be less. Therefore, Alternative 1 would have slightly reduced impacts on utilities and service systems compared to the project.

Energy Conservation

As concluded in Section 4.12, Energy Conservation, the project would not contribute to inefficient or wasteful consumption of electricity, natural gas, or petroleum and impacts related to conflicts with existing energy standards would be less than significant. Additionally, the project would not place significant demand on local or regional energy supplies or require a substantial amount of additional capacity. However, there would be an increase in the amount of electricity, natural gas, and petroleum used during construction and operation of the project, and additional energy supplies would be needed to accommodate the growth in future phases.

Alternative 1 would also include an increase in the amount of electricity, natural gas, and petroleum used during construction and operation; however, since Alternative 1 would reduce development and the number of beds by 25%, the amount of energy required would be less than the project. Therefore, Alternative 1 would have slightly reduced impacts on energy conservation compared to the project.

Relationship to Project Objectives and Feasibility

Under Alternative 1, the amount of hospital beds would be decreased by 25% compared to the project. This alternative would result in new construction; however, it would be less construction than the project, and as a result, fewer trips by employees, customers, and visitors would occur. Table 7.0-2 provides a list of the project objectives and whether or not the alternative meets each objective.

Table 7.0-2
Summary of Alternative 1 Success at Meeting Project Objectives

Project Objective	Alternative Meets Objective?
1. Demolish, rehabilitate, and construct new structures within the RCH campus in order to comply with the mandated requirements of SB 1953, the Alfred E. Alquist Seismic Act, to replace unsafe applicable hospital facilities by the year 2030.	Yes. Similar to the project, Alternative 1 would demolish, rehabilitate, and construct new structures, to bring buildings into compliance with SB 1953. Unsafe hospital facilities would be replaced under this alternative by the year 2030.
2. In order to meet the requirements of Nonstructural Performance Category 5 by 2030, construct facilities that provide a self-sustaining hospital that would provide water and wastewater holding tanks sufficient for 72 hours in the event of a disaster.	Yes. Alternative 1 would meet the requirements of Nonstructural Performance Category 5 by 2030 by constructing self-sustaining water and wastewater facilities that would have the capacity to compensate for increased demand in the event of a disaster.
3. Develop a comprehensively planned, integrated medical campus within the existing hospital campus boundaries that includes an approximately 600-hospital-licensed bed buildout capacity, with acute care services, medical offices, and ancillary services for the community and new employment opportunities in downtown Riverside.	No. Although Alternative 1 would develop a comprehensively planned, integrated medical campus within the campus boundaries, it would not include 600 licensed beds. Alternative 1 would only include 450 licensed beds. The reduction in bed count and building size may eliminate some of the services provided by the project. Additionally, the reduction in licensed beds would also reduce the amount of employment opportunity in downtown Riverside.
4. Increase hospital operational efficiencies by providing a variety of services, such as cancer care, ER/trauma, imaging, neurology and neurosurgery, a center for surgical weight loss, transplant programs, labs, and medical office space in a central campus-like setting.	No. As previously stated, the reduction in building size as a result of this alternative would also decrease the amount of building space, which would be required to increase hospital operational efficiencies. Therefore, Alternative 1 would not meet this project objective.
5. Provide space for research and medical education facilities in cooperation with the Medical School at University of California, Riverside.	No. As previously discussed, the reduction in building size as a result of this alternative would also reduce the amount of space available for research and medical education. Therefore, this project objective would not be met by Alternative 1.
6. Provide a roadmap to guide future development plans on the campus by providing design and development standards to be implemented by future streamlined entitlement processes for future campus expansions.	Yes. Under Alternative 1 the RCH SP would still be implemented, which would provide a roadmap to guide future development on the campus. Implementation of the RCH SP would also streamline the entitlement process for future expansion. Alternative 1 would meet this project objective.

Alternative 1 would meet some of the project objectives; however, the reduction in building size and space would also reduce the amount of room available for increased hospital operational efficiencies, medical services, and educational facilities. Additionally, Alternative 1 would not meet the project objective of 600 licensed beds. Therefore, although this alternative is feasible, it does not meet all the project objectives.

7.4.3 Alternative 2 – One Hospital Bed Tower Development

The project would construct one hospital bed tower under Phase I (a seven-story tower) and another under Phases IIb and IIc (a nine-story tower); these two towers combined would accommodate 600 licensed beds.

Alternative 2 would involve the construction and operation of one 15-story hospital bed tower that would accommodate 600 licensed beds, rather than the two hospital bed towers planned under the project. The 15-story hospital bed tower would be built where the Phase I bed tower is currently proposed (near 14th Street) and would require the demolition of Building N. Phase IIa would still occur as a result of this alternative, but Phases IIb and IIc would not occur. The construction of only one bed tower would limit the amount of land needed to support the additional beds and the amount of construction time required. Additionally, this alternative would limit the adjacency issues related to placing numerous buildings close to cultural resources (i.e., Calvary Presbyterian Church) and sensitive receptors. Furthermore, the RCH SP would continue to be implemented under this alternative. However, a 15-story building in the middle of the RCH campus would alter the aesthetics of the site and the views from surrounding locations.

Aesthetics

As discussed in Section 4.1, Aesthetics, with mitigation incorporated, the project would have less than significant impacts associated with scenic vistas of Mount Rubidoux and the San Bernardino Mountains. With mitigation, the project would also have less than significant impacts on scenic resources. Impacts to visual character would also be less than significant; however, viewers along perimeter streets and from surrounding properties would experience views of a more intensely developed hospital campus with implementation of the project.

Under Alternative 2, the 15-story hospital bed tower would be built where the Phase I tower is currently proposed. The addition of a 15-story building in this location would substantially alter the visual character and aesthetic of the campus and the surrounding environment. Scenic views toward Mount Rubidoux and the San Bernardino Mountains would be impaired from the RCH campus as well as adjacent land uses. Therefore, although Phases IIb and IIc would not be constructed near the culturally significant Calvary Presbyterian Church, the construction of a 15-story building would have significant and unavoidable impacts on aesthetics because its massing and scale would be much more prominent against the existing surrounding properties and would cause a greater visual impact to surrounding views to Mount Rubidoux and the San Bernardino Mountains in the distance. The project would have reduced impacts compared to Alternative 2.

Air Quality

As discussed in Section 4.2, Air Quality, the project would not conflict with or obstruct implementation of the applicable air quality plan, nor would construction impacts associated with PM_{10} emissions exceed the significance threshold. Although mitigation measures would be implemented to reduce potential impacts, operational impacts associated with PM_{10} emissions due to vehicle trips would remain significant and unavoidable.

Under Alternative 2, the number of traffic trips generated would be similar to the project. When compared to the project, this alternative would result in similar PM_{10} emissions, and could result in higher emissions related to volatile organic compounds (VOCs) from additional construction needed for the 15-story tower in a more condensed time frame than what is proposed for the project. Therefore, air quality impacts would be expected to remain significant and unavoidable under Alternative 2.

Biological Resources

As described in Section 4.3, Biological Resources, the existing and future ornamental landscaping, including mature trees, throughout the project site has the potential to provide nesting habitat for birds. Implementation of a mitigation measure requiring nesting bird surveys during each phase of the project prior to ground-disturbing activities would reduce potential impacts to less than significant.

Impacts to biological resources as a result of Alternative 2 would be similar to those associated with the project. The 15-story building would be constructed within the RCH campus on a previously disturbed site and within a highly urbanized setting Although the Western Riverside County Multiple Species Habitat Conservation Plan is applicable to the project site, the site does not contain any sensitive or special-status species or habitat, nor does the site include riparian or other significant biological resources. Mitigation measures requesting bird surveys for existing and future ornamental landscaping would still be required as a result of Alternative 2. Therefore, impacts would the same for Alternative 2 as they would be for the project.

Cultural Resources

As described in Section 4.4, Cultural Resources, there are a number of on- and off-site historical buildings and cultural resources. The project would need to be particularly sensitive to these resources when development of each phase is in close proximity to the resources. The project also includes the demolition of two buildings (Building N and Building A) that were found to not be significant. The mitigation measures provided in Section 4.4 would reduce potential impacts to a less than significant level and no significant adverse impacts would remain after mitigation.

Unlike the project, no hospital bed towers would be constructed near the Calvary Presbyterian Church as a result of Alternative 2. However, under Alternative 2 the 15-story hospital bed tower would be located adjacent to the Riverside Community Players Theatre, which is potentially significant. Alternative 2 would not be consistent with the RCH SP. The RCH SP outlines specific development standards that are in place to ensure that the massing and scale of buildings respect the visual and physical relationship of adjacent historically or culturally significant buildings. A 15-story building adjacent to the 1- to 2-story Riverside Community Players Theatre would not be visually compatible with or sensitive to its historical value. Therefore, impacts associated with cultural resources as a result of Alternative 2 would be greater than the project.

Greenhouse Gas Emissions

As described in Section 4.5, Greenhouse Gas Emissions, operational impacts associated with implementation of the project would be less than significant. The City of Riverside has not adopted a GHG reduction plan, as specified in California Code of Regulations, Title 14, Section 15183.5(b), that would apply to the GHG emissions associated with the project; however, the City does have adopted policies and goals related to GHG emission reductions in its GP 2025 and Green Action Plan. Additionally, the SCAQMD has not considered thresholds of significance for GHG emissions for institutional projects such as this type of project. Further, the SCAQMD has not formally adopted these thresholds of significance for GHG emissions (refer to Section 4.5.2 of the EIR). Thus, there are no numeric emission-based thresholds by which the City could evaluate whether the Alternative 2 project emissions would exceed a threshold of significance as indicated in Section 15064.4(b)(2) of the CEQA Guidelines. However, the Alternative 2 project's GHG impacts would be consistent with local plans and policies, as well as incorporating the same project design features listed in Table 4.5-3 of the EIR. Therefore, impacts to GHG emissions under Alternative 2 would be the same as those from the project.

Hazards and Hazardous Materials

As discussed in Section 4.6, Hazards and Hazardous Materials, as part of the project, prior to construction of Phases I, IIa, IIb, and IIc, RCH will prepare/update a hazardous substance management, handling, storage, disposal, and emergency response plan to be followed during construction. This plan will ensure adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, and will ensure that construction of the project will not create a significant hazard to the public or the environment, including nearby schools. In addition to the emergency response plan, implementation of mitigation measures would further reduce potential impacts associated with hazards and hazardous materials as a result of the project to a less than significant level.

Under Alternative 2, the same potential hazards would exist and preparation of an emergency response plan would still be required. Alternative 2 would include the same amount of beds as the project; therefore, there would not be a reduction in the number of patients, visitors, and employees who would be exposed to potentially hazardous conditions. Impacts associated with hazards and hazardous materials would be similar to the project.

Hydrology/Water Quality

As discussed in Section 4.7, Hydrology/Water Quality, the project would be in compliance with all applicable federal, state, and local rules and regulations regarding water quality and hydrology. In addition, implementation of BMPs described in Chapter 2.0, Project Description, would further reduce potential impacts associated with water quality and hydrology to a less than significant level. Impacts related to hydrology and water quality were found to be less than significant through compliance with existing regulations and as a result of project design features.

Alternative 2 would be required to comply with all the same applicable federal, state, and local regulations regarding water quality and hydrology. Similar BMPs would also be implemented to further reduce potential impacts related to the construction of the 15-story tower. Therefore, Alternative 2 would have the same impacts on water quality and hydrology as the project.

Land Use and Planning

As described in Section 4.8, Land Use and Planning, the project includes a GP 2025 amendment to designate the RCH SP area as RCH SP and replace the current DSP land use designation. The project also includes a rezone to designate the RCH SP Area as RCH SP in the City's Zoning Map. The proposed RCH SP land use designation and zoning would allow for implementation of the RCH SP and associated development standards, which are necessary to meet the increasing demand for hospital-related services and amenities. The RCH SP will make future development more streamlined in that it will supersede existing entitlements, outline existing uses and future uses, and lay out a cohesive set of guidelines that will provide City staff, RCH, and the public with a clear understanding of how growth and development will occur at the site.

The 15-story hospital bed tower proposed as part of Alternative 2 would not be in compliance with the RCH SP. The development standards set forth in the RCH SP set height restrictions to 9 stories. Alternative 2 would not comply with the RCH SP and is considered to have more impacts related to land use compared to the project.

Noise

As discussed in Section 4.9, Noise, the project would result in significant noise impacts even with mitigation measures incorporated. Noise from construction equipment would be considered strongly perceptible to mildly unpleasant. Construction of the project would be temporary and mitigation measures would reduce potential impacts; however, noise impacts would not be completely reduced below City standards.

Traffic noise on and around the site may shift slightly due to changes in traffic patterns under Alternative 2, but traffic noise impacts are not anticipated to substantially change under this alternative. All feasible mitigation measures that apply to the project would also apply to this alternative. Other sources of noise, such as temporary construction-related noise, would remain the same under this alternative as for the project. Therefore, noise impacts under this alternative would be similar to the project, and would remain significant and unavoidable.

Traffic

As described in Section 4.10, Traffic, the project would not conflict with adopted policies regarding public transit, bicycle, or pedestrian facilities, nor would it result in a change in air traffic patterns. The project would, however, have a significant internal impact at the driveway of 14th Street and the RCH Entrance as a result of the project, and no feasible mitigation has been identified since this impact occurs within the internal site of RCH and is not affecting circulation on local roads. Additionally, the project would conflict with the applicable congestion management plan due to Phase IIa, IIb, and IIc impacts on roadway segment operations along 14th Street, Magnolia Avenue to Mulberry Avenue (LOS F). No feasible mitigation measures are available to mitigate the impacts along 14th Street, Magnolia Avenue to Mulberry Avenue, and this roadway segment would require a Statement of Overriding Considerations.

Under Alternative 2, the same number of beds are proposed, which means the same amount of traffic would be coming and going to and from the RCH campus. However, because there would be only one hospital bed tower instead of two, traffic patterns would be redistributed and focused mainly on the intersection of 14th Street and the RCH Entrance. Impacts at this intersection would be much greater under Alternative 2 than under the project. Additional, potentially more costly, mitigation would be required to reduce impacts at this entrance. Therefore, the project would have reduced impacts compared to Alternative 2.

Utilities and Service Systems

As discussed in Section 4.11, Utilities and Service Systems, the project would not require the construction of new stormwater drainage facilities or expansion of existing facilities. The project's potential impacts associated with landfill capacity would be considered less than significant. Additionally, the project would comply with all state and local statutes and regulations related to

solid waste during construction and operation of all phases. There are no federal regulations or statutes related to solid waste that apply to the project.

Since Alternative 2 would have the same number of beds as the project, the amount of solid waste generated during operation would be similar. However, during construction, the amount of solid waste generated by demolition activities (Building N would be demolished) under Alternative 2 would be reduced compared to the amount of solid waste generated under the project (both Building N and Building A would be demolished) because fewer buildings would need to be demolished under this scenario. Therefore, Alternative 2 would have slightly reduced impacts on utilities and service systems compared to the project.

Energy Conservation

As concluded in Section 4.12, Energy Conservation, the project would not contribute to inefficient or wasteful consumption of electricity, natural gas, or petroleum and impacts related to conflicts with existing energy standards would be less than significant. Additionally, the project would not place significant demand on local or regional energy supplies or require a substantial amount of additional capacity. However, there would be an increase in the amount of electricity, natural gas, and petroleum used during construction and operation of the project, and additional energy supplies would be needed to accommodate the growth in future phases.

Alternative 2 would also include an increase in the amount of electricity, natural gas, and petroleum used during construction and operation. Alternative 2 would not conflict with existing energy standards. The amount of energy required under Alternative 2 would the same as the project since the same number of beds are proposed. Therefore, Alternative 2 and the project would have similar impacts on energy conservation.

Relationship to Project Objectives and Feasibility

Under Alternative 2, the number of hospital beds would remain the same as for the project (600). However, this alternative would construct one 15-story hospital bed tower, rather than two smaller hospital bed towers. Table 7.0-3 provides a list of the project objectives and whether or not the alternative meets each objective.

Table 7.0-3
Summary of Alternative 2 Success at Meeting Project Objectives

Project Objective	Alternative Meets Objective?
1. Demolish, rehabilitate, and construct new structures within the RCH campus in order to comply with the mandated requirements of SB 1953, the Alfred E. Alquist Seismic Act, to replace unsafe applicable hospital facilities by the year 2030.	Yes. Alternative 2 would involve the same seismic upgrades that are proposed under the project. Building B would still be retrofitted and the new hospital bed tower would comply with the mandated requirements of SB 1953.

Table 7.0-3
Summary of Alternative 2 Success at Meeting Project Objectives

Project Objective	Alternative Meets Objective?
2. In order to meet the requirements of Nonstructural Performance Category 5 by 2030, construct facilities that provide a self-sustaining hospital that would provide water and wastewater holding tanks sufficient for 72 hours in the event of a disaster.	Yes. Alternative 2 would construct water and wastewater facilities that provided for a self-sustaining hospital sufficient for 72 hours in the event of a disaster. This alternative would meet the requirements of Nonstructural Performance Category 5 by 2030.
3. Develop a comprehensively planned, integrated medical campus within the existing hospital campus boundaries that includes an approximately 600-hospital-licensed bed buildout capacity, with acute care services, medical offices, and ancillary services for the community and new employment opportunities in downtown Riverside.	Yes. This alternative would develop a comprehensively planned integrated medical campus within the boundaries of the hospital. The proposed 15-story hospital bed tower would hold approximately 600 licensed beds, which would meet this project objective. The new hospital bed tower would also have room for acute and ancillary services as well as providing employment opportunities for the city.
4. Increase hospital operational efficiencies by providing a variety of services, such as cancer care, ER/trauma, imaging, neurology and neurosurgery, a center for surgical weight loss, transplant programs, labs, and medical office space in a central campus-like setting.	Yes. Alternative 2 would increase hospital operational efficiencies and would provide space for the same variety of services that are proposed under the project.
5. Provide space for research and medical education facilities in cooperation with the Medical School at University of California, Riverside.	Yes. Alternative 2 would provide the same amount of space as the project for research and medical education facilities.
6. Provide a roadmap to guide future development plans on the campus by providing design and development standards to be implemented by future streamlined entitlement processes for future campus expansions.	No. This alternative would not comply with the development standards or design guidelines provided in the RCH SP. The RCH SP caps building height at 9 stories. A 15-story bed tower would not be allowed under the RCH SP.

Alternative 2 would meet all but one of the project objectives. The RCH SP, which provides a roadmap to guide future development plans on the campus, caps building height at 9 stories. This alternative, which proposes at 15-story hospital bed tower, would not be in compliance with the RCH SP. Additionally, the 15-story tower would have much greater impacts on aesthetics and traffic congestion than the project. Therefore, although this alternative is feasible, it does not meet all the project objectives.

7.5 EVALUATION OF ALTERNATIVES

In accordance with the CEQA Guidelines Section 15126.6(d), the discussion of the environmental effects of the alternatives may be less detailed than the discussion of the impacts of the project. Table 7.0-4 provides a summary of the comparison of the impacts of the alternatives with the project; an analysis of the environmentally superior alternative is provided in Section 7.6.

Table 7.0-4
Summary of Comparison of Alternatives Impacts

Environmental Issue Area	Project	No Project	Alternative 1 – Reduced Licensed Beds	Alternative 2 – One Hospital Bed Tower Development
Aesthetics	LTS	▼	▼	Δ
Air quality	SU	▼	—	—
Biological resources	LTS	▼	—	—
Cultural resources	LTS	▼	—	Δ
Greenhouse gas emissions	SU	▼	—	—
Hazards and hazardous materials	LTS	▼	▼	—
Hydrology and water quality	LTS	▼	—	—
Land use and planning	LTS	▼	—	Δ
Noise	SU	▼	—	—
Transportation and traffic	SU	▼	▼	Δ
Utilities and service systems	LTS	▼	▼	▼
Energy conservation	LTS	▼	▼	—
Meets project objectives?	Yes	No	No	No

Δ Alternative is likely to result in greater impacts to issue when compared to project.
— Alternative is likely to result in similar impacts to issue when compared to project.
▼ Alternative is likely to result in reduced impacts to issue when compared to project.
LTS = less than significant impact; SU = significant, unavoidable impact

7.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As indicated in Table 7.0-4, the No Project Alternative would result in the least environmental impacts, and based on this would be considered the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Of the alternatives evaluated above, Alternative 1 was found to be environmentally superior over the project (see Table 7.0-4) because it had the most reductions in impacts from the project. Alternative 1 was found to have improved, or better, impacts related to aesthetics, hazards and hazardous materials, transportation and traffic, utilities and service systems, and energy conservation. However, Alternative 1 does not meet the following project objectives:

1. Develop a comprehensively planned, integrated medical campus within the existing hospital campus boundaries that includes an approximately 600-hospital-licensed bed buildout capacity, with acute care services, medical offices, and ancillary services for the community and new employment opportunities in Downtown Riverside.

2. Increase hospital operational efficiencies by providing a variety of services, such as cancer care, ER/trauma, imaging, neurology and neurosurgery, a center for surgical weight loss, transplant programs, labs, and medical office space in a central campus-like setting.
3. Provide space for research and medical education facilities in cooperation with the Medical School at University of California, Riverside.

Further, Alternative 1 would not reduce the project's significant and unavoidable air quality impacts to less than significant levels.

7.7 REFERENCES

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

California Public Resources Code, Sections 21000–21177. California Environmental Quality Act (CEQA), as amended.

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CHAPTER 8.0
GROWTH-INDUCING IMPACTS

8.1 ENVIRONMENTAL IMPACTS

Section 15126.2(d) of the California Environmental Quality Act (CEQA) Guidelines requires a discussion of how the potential growth-inducing impacts of the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Induced growth is distinguished from the direct employment, population, or housing growth of a project (14 CCR 15000 et seq.). If a project has characteristics that "may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively," then these aspects of the project must be discussed as well. Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place in the absence of the proposed project. Typically, the growth-inducing potential of a project would be considered significant if it stimulates population growth or a population concentration above what is assumed in local and regional land use plans, or in projections made by regional planning authorities, such as the Southern California Association of Governments (SCAG).

The CEQA Guidelines also indicate that growth should not be assumed to be either beneficial or detrimental (14 CCR 15126.2(d)). According to Section 15126.2(d) of the CEQA Guidelines, a project may foster economic or population growth, or additional housing, either indirectly or directly, in a geographical area if it meets any one of the following criteria:

- The project would remove obstacles to population growth.
- Increases in the population may tax existing community service facilities, causing significant environmental effects.
- The project would encourage and facilitate other activities that could significantly affect the environment.

The Riverside Community Hospital (RCH) Specific Plan Expansion Project (project) would involve the expansion of the RCH on an approximately 22.5-acre site over a 30-year period, as proposed in the Specific Plan (SP) (Dudek n.d.). The project would not involve the development of additional housing. The expanded facility would result in a greater availability of hospital services and would meet the increase in demand of the area. Meeting demands for hospital and medical services would not be growth inducing. This project promotes infill development rather than encouraging new development within a currently undeveloped area. However, the project would require additional employees to serve the new hospital bed towers, mixed-use medical buildings, and any additional hospital expansions.

According to the SCAG Growth Forecast (Appendix to the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy), employment is anticipated to grow from 151,500 in 2008 to 217,800 in 2035 in the City of Riverside (SCAG 2012, 35). Total employees/staff at the end of Phase I would be 2,290 (RCH currently employs 1,960 employees; an additional 330 estimated employees would be needed to serve the new tower). It is not yet known how many employees would be required upon the completion of the hospital expansion (after Phase IIc has been completed); however, the increase in employment would be minimal in comparison to the anticipated increase of the SCAG Growth Forecast. Therefore, the project would not stimulate population growth or a population concentration above what is assumed in local and regional land use plans, or in projections made by regional planning authorities.

Indirect growth can also occur by a project installing infrastructure that can support further growth. The project site is served by existing public services and utilities and no new utilities would be needed in order to serve the project. Therefore, indirect growth inducement as a result of the extension of these facilities into a new area would not occur.

Overall, the project would indirectly stimulate population growth through the addition of new hospital staff members. However, the growth would be consistent with employment growth envisioned in local and regional land use plans and in projections made by regional planning authorities, since the planned growth of RCH and its land use intensity have been factored into the underlying growth projections of the SCAG 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy.

8.2 REFERENCES

City of Riverside. 2007a. *City of Riverside General Plan 2025*. Adopted November 2007. Accessed December 2013. http://www.riversideca.gov/planning/gp2025program/general-plan.asp.

Dudek. n.d. *City of Riverside Specific Plan.*

SCAG (Southern California Association of Governments). 2012. *Growth Forecast, Appendix to 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy*. Adopted April 2014. Accessed January 17, 2014. http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_GrowthForecast.pdf.

CHAPTER 9.0
LIST OF PREPARERS

Per Section 15129 of the California Environmental Quality Act (CEQA) Guidelines, an environmental impact report (EIR) shall identify all federal, state, or local agencies, organizations, and private individuals consulted in preparing the EIR, and the persons, firm, or agency preparing the EIR.

City of Riverside

Steve Hayes, City Planner
Gabriel Perez, Principal Planner
Patricia Brenes, Senior Planner
Brian Norton, Associate Planner
Erin Gettis, Historic Preservation Officer/Principal Planner
Teri Delcamp, Historic Preservation Senior Planner
Kristi Smith, Supervising Deputy City Attorney
Rob Van Zanten, Principal Engineer
Steve Libring, Traffic Engineer
Kevin Marstall, Senior Engineer
Cliff Yarges, Associate Traffic Engineer
Matthew Bates, Senior Water Engineer

Riverside Community Hospital Management Team

Patrick Brilliant, President and CEO
Dan Bowers, Chief Operating Officer
Jose Torres, Director, Facilities Management

Perkins+Will

Matt Byrum, Senior Medical Planner, Associate

Best, Best, & Krieger

Michelle Ouellette, Partner
Charity B. Schiller, Partner

Dudek (Draft EIR Preparation)

Dudek
3685 Main Street, Suite 250
Riverside, California 92501

Stephanie Standerfer, Project Manager
Asha Bleier, Project Manager
Dave Deckman, Air Quality Services Director
Stephanie Tang, Environmental Planner
Emily Lyons, Environmental Planner
Jennifer Pace, Environmental Planner
Alexandra Coniglio, Environmental Analyst
Caitlin Munson, Environmental Analyst
Coral Welton, Senior GIS Analyst
Lesley Terry, Senior GIS Analyst
Laurel Porter, Technical Editor
Hannah DuBois, Publications Production Lead
Devin Brookhart, Publications Production Assistant

Technical Analyses

Air Quality and Greenhouse Gas Technical Report

Dudek, Dave Deckman
Dudek, Stephanie Tang
Dudek, Jennifer Pace

Biological Technical Report

Dudek, Linda Archer
Dudek, Ryan Gilmore

Cultural Resources Survey and Evaluation

Wilkman Historical Services
Bill Wilkman
PO Box 362
Riverside, California 92502

Phase I Environmental Site Assessment

Dudek, Susie Smith
Dudek, Nicole Peacock

Noise Technical Report

Dudek, Mike Greene
Dudek, Stephanie Tang

Traffic Impact Assessment and Parking Analysis

Kimley-Horn and Associates Inc.
765 The City Drive, Suite 200
Orange, California 92868

Nikki Kerry, Senior Vice President
Serine Ciandella, Senior Vice President

Water Quality Management Plan

Kimley-Horn and Associates Inc.
765 The City Drive, Suite 200
Orange, California 92868

Nikki Kerry, Senior Vice President

Geotechnical Report

AMEC
6001 Rickenbacker Road
Los Angeles, California 90040

Ethan Tsai, Technical Professional Engineer
Rosalind Munro, Associate Geologist
Mark A. Murphy, Project Manager/Associate Geotechnical Engineer
Marshal Lew, Principal Engineer

Hydrology and Hydraulics Study

Kimley-Horn and Associates Inc.
765 The City Drive, Suite 200
Orange, California 92868

Nikki Kerry, Senior Vice President

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