Final Environmental Impact Report for the

Riverside Community Hospital Specific Plan Expansion Project

MAY 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

FINAL

Environmental Impact Report for the Riverside Community Hospital Specific Plan Expansion Project State Clearinghouse No. 2013071102

Prepared for:

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

Contact: Steve Hayes, City Planner

Prepared by:

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

MAY 2014

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CHAPTER 1.0
INTRODUCTION

1.1 PURPOSE

The City of Riverside (City), as the lead agency under the California Environmental Quality Act (CEQA), has prepared this Final Environmental Impact Report (Final EIR) for the proposed Riverside Community Hospital Specific Plan Expansion Project (project). This Final EIR contains all of the required contents as outlined in Section 15132 of the CEQA Guidelines, including:

- The Draft EIR or a revision to the draft;
- Comments and recommendations received on the Draft EIR;
- A list of persons, organizations, and public agencies commenting on the Draft EIR;
- The responses of the lead agency to significant environmental points raised in the review and consultation process; and
- Any other information added by the lead agency.

This Final EIR for the project consists of comments and responses to comments and a mitigation monitoring plan for the project. This Final EIR is intended to be used along with the Draft EIR, which is incorporated by reference and bound separately.

This Final EIR assembles all the environmental data and analyses that have been prepared for the project. It also includes public and agency comments on the Draft EIR and responses by the City to those comments. The intent of the Final EIR is to provide a forum to air and address comments pertaining to the analysis contained in the Draft EIR and to provide an opportunity for clarification, corrections, or minor revisions to the Draft EIR as needed.

The evaluation and response to comments is an important part of the CEQA process because it allows the following:

- The opportunity to review and comment on the methods of analysis contained in the Draft EIR;
- The ability to detect any omissions that may have occurred during the preparation of the Draft EIR;
- The ability to check for accuracy of the analysis contained within the Draft EIR;
- The ability to share expertise; and
- The ability to discover public concerns.

1.2 PROCESS

A Draft EIR was prepared for the project and circulated for public review from February 6, 2014, through March 24, 2014, through the Governor's Office of Planning and Research, the State Clearinghouse, and the Riverside County Clerk. Copies of the Draft EIR, Specific Plan (SP), and Appendices were made available at the City of Riverside, Community Development Department, Planning Division (3900 Main Street, Third Floor, Riverside, California 92522), as well as at the Riverside Main Library (3581 Mission Inn Avenue, Riverside, California 92501).

The City used several methods to elicit comments on the Draft EIR. The notice of availability (NOA) was mailed to various agencies and organizations, individuals that had previously requested such notice, adjacent property owners, and property owners along Rice Road. The Draft EIR, SP, and Appendices were also posted on the City of Riverside Planning Division website at http://www.riversideca.gov/planning/.

Written comments were received during the public review period. Pursuant to Section 15088 of the CEQA Guidelines, the City, as the lead agency for the project, has reviewed all comments received on the Draft EIR. Responses to these comments are contained within Chapter 2, Comments Received and Responses to Comments, of this Final EIR.

CHAPTER 2.0
COMMENTS RECEIVED AND RESPONSES TO COMMENTS

2.1 INTRODUCTION

In accordance with Section 15088 of Title 14 of the California Code of Regulation (California Environmental Quality Act (CEQA) Guidelines), the City has evaluated the comments received on the Draft Environmental Impact Report (EIR) for the Riverside Community Hospital Specific Plan Expansion Project and has prepared written responses to these comments. This chapter contains copies of the comments received during the public review process and provides an evaluation and written responses for each of these comments.

2.2 COMMENTS RECEIVED

During the public review period from February 6, 2014, through March 24, 2014, the City received 6 comments from agencies and organizations. After close of the review period, 2 additional comments were received, which are included in the Final EIR as shown below. These commenters are listed in Table 2-1, along with a corresponding letter designation.

Table 2-1
Draft EIR Commenters

Comment Letter Designation	Commenter Agency/Name	Date
A	Eastern Municipal Water District	February 12, 2014
B	Morongo Band of Mission Indians	February 21, 2014
C	Department of Transportation (Caltrans)	February 27, 2014
D	Native American Heritage Commission	March 10, 2014
E	Southern California Edison	March 14, 2014
F	Pechanga Band of Luiseño Indians	February 7, 2014 and March 24, 2014
G	Governor's Office of Planning and Research, State Clearinghouse and Planning Unit	March 25, 2014
H	Southern California Gas Company	March 29, 2014

2.3 COMMENTS AND RESPONSES TO COMMENTS

This section includes all written comments on the Draft EIR received by the City and the responses to those comments in accordance with Section 15088 of the CEQA Guidelines. In accordance with the CEQA Guidelines, responses are prepared for those comments that address the sufficiency of the environmental document regarding the adequate disclosure of environmental impacts and methods to avoid or mitigate those impacts. When responding to comments, lead agencies need only respond to significant environmental issues and do not need

to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the Draft EIR. Additionally, it should be noted that comments by public agencies should be limited to those aspects of a project that are within its area of expertise or which are required to be carried out or approved by the agency, and such comments must be supported by substantial evidence (CEQA Guidelines Section 15204).

Comment Letter A

Stephanie Tang

From: Brenes, Patricia <PBRENES@riversideca.gov>
Sent: Wednesday, February 12, 2014 10:07 AM
To: Stephanie Standerfer; Stephanie Tang
Cc: matt.byrum@perkinswill.com; Jose.Torres@hcahealthcare.com; Dan.Bowers@hcahealthcare.com
Subject: FW: Riv Community Hospital project No. 2013071102
Attachments: Scanned from a Xerox multifunction device001.pdf

Below is the first comment received regarding the RCH SP and DEIR.

Thanks,
Patricia

-----Original Message-----
From: McVey, Karen [mailto:mcveyk@emwd.org]
Sent: Wednesday, February 12, 2014 9:57 AM
To: Brenes, Patricia
Subject: Riv Community Hospital project No. 2013071102

Eastern Municipal Water District has "No Conflict" regarding this project; if you need further assistance please call Cameron Valenzuela 951-928-6107, thank you. A-1

Karen McVey
Administrative Assistant II
Eastern Municipal Water District
2270 Trumble Rd
Perris, CA 92572
Facilities Locations
951-928-3777 Ex:4873
mcveyk@EMWD.org

1

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Response to Comment Letter A

Eastern Municipal Water District
February 12, 2014

A-1 The comment states that Eastern Municipal Water District (EMWD) has no conflict with the project. The City appreciates EMWD's review and comments provided on the Draft EIR. This comment does not change the significance determination found in the EIR.

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Comment Letter B

MORONGO BAND OF MISSION INDIANS

A SOVEREIGN NATION

February 10, 2014

Steve Hayes, City Planner
City of Riverside
Community Development Department
3900 Main Street
Riverside, CA 92522

SUBJECT: Notice of Completion & Availability of a Draft Environmental Impact Report Riverside Community Hospital Specific Plan Expansion Project State Clearinghouse No. 2013071102

Dear Mr. Hayes:

Thank you for contacting the Morongo Band of Mission Indians regarding the above referenced project. The Tribe greatly appreciates the opportunity to review the project and, respectfully, offer the following comments. B-1

The project is outside of the Tribe's current reservation boundaries but within an area that may be considered a traditional use area or one in which the Tribe has cultural ties (e.g. Cahuilla/Serrano territory). It appears that the Mitigation Measures contained in Section 4.4.5 of the Specific Plan Expansion Project E.I.R. adequately address the Tribe's concerns with regard to cultural and/or archaeological resources and buried cultural materials. B-2 Based upon this finding, the Morongo Band of Mission Indians has no comments at this time but reserves the right to comment upon any subsequent entitlement applications. B-3

If I may be of further assistance with regard to this matter, please do not hesitate to contact me at your convenience. B-4

Very truly yours,

MORONGO BAND OF MISSION INDIANS

Franklin A. Dancy

Franklin A. Dancy,
Director of Planning

12700 PUMARRA ROAD - BANNING, CA 92220 - 951-849-4697 - FAX: 951-849-4425

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Response to Comment Letter B

Morongo Band of Mission Indians
February 21, 2014

B-1 The City appreciates the Morongo Band of Mission Indians' review and comments provided on the Draft EIR. This comment does not change the significance determination found in the EIR.

B-2 Comment noted. The comment states that the project site is not located within an area that may be considered a traditional use area or one in which the Tribe has cultural ties. The comment further notes that the mitigation measures contained in Section 4.4.5 of the Draft EIR adequately addresses the Tribe's concerns with regards to cultural and/or archaeological resources and buried cultural materials. This comment does not change the significance determination found in the EIR.

B-3 Comment noted. This comment does not change the significance determination found in the EIR.

B-4 Comment noted. This comment does not change the significance determination found in the EIR.

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Comment Letter C

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING (MS 1221)
464 WEST 4th STREET, 6th Floor
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4557
FAX (909) 383-6890
TTY (909) 383-6300
www.dot.ca.gov/dist8

RECEIVED
FEB 27 2014
RIVERSIDE CITY
COMMUNITY DEVELOPMENT DEPT.
PLANNING DIVISION

Flex your power!
Be energy efficient!

February 25, 2014

Patricia Brenes
City of Riverside
Planning Department
3900 Main Street, Third Floor
Riverside, CA 92522

Notice of Completion and Environmental Document Transmittal SCH# 2013071102 (Riv 91PM 19.91)

Ms. Brenes,

We have completed our initial review for the above mentioned proposal for future expansion plans on the Riverside Community Hospital campus. Whereas a master plan has been developed and includes both short-term and long-range planning goals that cover construction on the RCH campus over 30-year period. C-1

However, we were not able to complete a full review of the Traffic Impact Analysis report due to the fact that we were unable to locate Appendices (A-G) dealing with such issues as Signal Warrant Worksheet, Intersection Analysis Worksheet, and Traffic Counts. Please resubmit your TIA with these Appendices attached or you may send the above mentioned Appendices A-G separately. C-2

As the owner and operator of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. As the responsible agency under the California Environmental Quality Act (CEQA), it is also our responsibility to make recommendations to offset associated impacts with the proposed project. Although the project is under the jurisdiction of the City of Riverside due to the Project's potential impact to State facilities it is also subject to the policies and regulations that govern the SHS. C-3 C-4

We appreciate the opportunity to offer comments concerning this project. If you have any questions regarding this letter, please contact Talvin Dennis at (909) 383-6908 or myself at (909) 383-4557 for assistance. C-5

"Caltrans improves mobility across California"

Ms. Brenes
February 25, 2014
Page 2

Sincerely,

DANIEL KOPULSKY
Office Chief
Community and Regional Planning

"Caltrans improves mobility across California"

Response to Comment Letter C

California Department of Transportation
February 27, 2014

C-1 The City appreciates the California Department of Transportation's (Caltrans') review of the Draft EIR. This comment does not change the significance determination found in the EIR.

C-2 In response to this comment, the City mailed a CD to Caltrans on March 3, 2014, which includes the Traffic Impact Analysis and Appendices A-G for Caltrans' review and comments. Copies of the Draft EIR, SP, and Appendices were made available at the City's Planning Division, and also posted on the City's Planning Division website at http://www.riversideca.gov/planning/ during the public review period. A copy of the Draft EIR, SP and Appendices was also made available for public review at the Riverside Main Library during the public review period. This comment does not change the significance determination found in the EIR.

C-3 The comment states that the California Department of Transportation (Caltrans) is the owner and operator of the State Highway System and is responsible to coordinate and consult with local jurisdictions when proposed development may impact the State Highway System (in this case, State Route (SR) 91). The comment also states that Caltrans is responsible to make recommendations to offset associated impacts with the project. Please refer to Section 4.10, Traffic, Tables 4.10-9, 4.10-10, 4.10-11, and 4.10-13, of the Draft EIR, which notes that traffic at the 14th Street and SR 91 eastbound and westbound ramps would not exceed any level of service thresholds. This comment does not change the significance determination found in the EIR.

C-4 Comment noted. Please refer to Response to Comments C-3. This comment does not change the significance determination found in the EIR.

C-5 The City appreciates Caltrans' review and comments they have provided on the Draft EIR. This comment does not change the significance determination found in the EIR.

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Comment Letter D

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916) 373-3715
Fax (916) 373-5471
Web Site www.nahc.ca.gov
Ds_nahc@pacbell.net
e-mail: ds_nahc@pacbell.net

March 4, 2014

RECEIVED
MAR 10 2014
RIVERSIDE CITY
COMMUNITY DEVELOPMENT DEPT
PLANNING DIVISION

Ms. Patricia Brenes
City of Riverside
3900 Main Street, Third Floor
Riverside, CA 92522

Sent by U.S. Mail
No. of Pages: 4

RE: SCH#2013071102; CEQA Notice of Completion; Draft Environmental Impact Report (RDEIR) for the **"Riverside Community Hospital Specific Plan Expansion Project EIR;"** located in the City of Riverside; Riverside County, California

Dear Ms. Brenes

The Native American Heritage Commission (NAHC) has reviewed the above-referenced environmental document. D-1

The California Environmental Quality Act (CEQA) states that any project which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064.5(b).. To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required: D-2

Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, pursuant to California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. Also, California Public Resources Code Section 21083.2 require documentation and analysis of archaeological items that meet the standard in Section 15064.5 (a)(b)(f). D-3

If there is federal jurisdiction of this project due to funding or regulatory provisions; then the following may apply: the National Environmental Policy Act (NEPA 42 U.S.C 4321-43351) and Section 106 of the National Historic Preservation Act (16 U.S.C 470 *et seq.*) and 36 CFR Part 800.14(b) require consultation with culturally affiliated Native American tribes to determine if the proposed project may have an adverse impact on cultural resources D-4

We suggest that this (additional archaeological activity) be coordinated with the NAHC, if possible. The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. Any information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure pursuant to California Government Code Section 6254.10. D-5

A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter to determine if the proposed active might impinge on any cultural resources. D-6

California Government Code Section 65040.12(e) defines "environmental justice" to provide "fair treatment of People…with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." (The California Code is consistent with the Federal Executive Order 12898 regarding 'environmental justice.' Also, applicable to state agencies is Executive Order B-10-11 requires consultation with Native American tribes their elected officials and other representatives of tribal governments to provide meaningful input into the development of legislation, regulations, rules, and policies on matters that may affect tribal communities. D-7

Lead agencies should consider first, avoidance for sacred and/or historical sites, pursuant to CEQA Guidelines 15370(a). Then if the project goes ahead then, lead agencies include in their mitigation and monitoring plan provisions for the analysis and disposition of recovered artifacts, pursuant to California Public Resources Code Section 21083.2 in consultation with culturally affiliated Native Americans. D-8

Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. D-9

Sincerely,

Dave Singleton
Program Analyst

CC: State Clearinghouse

Attachment: Native American Contacts list

Native American Contacts
Riverside County California
March 4, 2014

Pechanga Band of Mission Indians
Paul Macarro, Cultural Resources Manager
P.O. Box 1477 Luiseno
Temecula , CA 92593
(951) 770-8100
pmacarro@pechanga-nsn.gov
(951) 506-9491 Fax

Morongo Band of Mission Indians
William Madrigal, Jr.,Cultural Resources Manager
12700 Pumarra Road Cahuilla
Banning , CA 92220 Serrano
(951) 201-1866 - cell
wmadrigal@morongo-nsn.gov
(951) 572-6004 Fax

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

San Manuel Band of Mission Indians
Daniel McCarthy, M.S.., Director-CRM Dept.
26569 Community Center. Drive Serrano
Highland , CA 92346
(909) 864-8933, Ext 3248
dmccarthy@sanmanuel-nsn.gov
(909) 862-5152 Fax

San Manuel Band of Mission Indians
Carla Rodriguez, Chairwoman
26569 Community Center Drive Serrano
Highland , CA 92346
(909) 864-8933
(909) 864-3724 - FAX
(909) 864-3370 Fax

Serrano Nation of Mission Indians
Goldie Walker, Chairwoman
P.O. Box 343 Serrano
Patton , CA 92369
(909) 528-9027 or
(909) 528-9032

Santa Rosa Band of Mission Indians
John Marcus, Chairman
P.O. Box 391820 Cahuilla
Anza , CA 92539
(951) 659-2700
(951) 659-2228 Fax

Cahuilla Band of Indians
Luther Salgado, Chairperson
PO Box 391760 Cahuilla
Anza , CA 92539
Chairman@cahuilla.net
760-763-5549
760-763-2631 - Tribal EPA

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list s only applicable for contacting locative Americans with regard to cultural resources for the proposed
SCH#2013071102; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Riverside Community Hispital Specific Plan Expansion Project EIR; located in the City of Riverside; Riverside County, California.

Native American Contacts
Riverside County California
March 4, 2014

Pechanga Cultural Resources Department
Anna Hoover, Cultural Analyst
P.O. Box 2183 Luiseño
Temecula , CA 92593
ahoover@pechanga-nsn.gov
951-770-8104
(951) 694-0446 - FAX

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning , CA 92220 Cahuilla
siva@dishmail.net
(951) 849-4676

SOBOBA BAND OF LUISENO INDIANS
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Luiseno
San Jacinto , CA 92581
jontiveros@soboba-nsn.gov
(951) 663-5279
(951) 654-5544, ext 4137
(951) 654-4198-FAX

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resorces Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net
909-262-9351

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list s only applicable for contacting locative Americans with regard to cultural resources for the proposed
SCH#2013071102; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Riverside Community Hispital Specific Plan Expansion Project EIR; located in the City of Riverside; Riverside County, California.

Response to Comment Letter D

Native American Heritage Commission
March 10, 2014

D-1 The City appreciates the Native American Heritage Commission's (NAHC's) review and comments provided on the Draft EIR. This comment does not change the significance determination found in the EIR.

D-2 This comment states that any project that includes archaeological resources must be disclosed in an EIR. As discussed in Section 4.4, Cultural Resources, in the Draft EIR, there are 12 archaeological sites within a 1-mile radius of the site, none of which are located on the Riverside Community Hospital (RCH) campus site. However, regarding encountering potential archaeological resources, the commenter is referred to page 4.4-23 through page 4.4-25 of the Draft EIR and the mitigation measures listed below. If any archaeological resources are encountered during any phase of the project's construction phase, the project applicant would comply with the following mitigation measures as documented in the Draft EIR:

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, <u>and any unknown native American artifacts</u>, 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.

Pursuant to Public Resources Code Section 5097.99, in the event Native American artifacts are discovered, work within the area of the discovery shall stop and the City shall consult with representatives of the Native American community to ensure the respectful treatment of Native American artifacts.

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.

This comment does not change the significance determination found in the EIR.

D-3 Please refer to Response to Comment D-2. This comment does not change the significance determination found in the EIR.

D-4 Comment noted. There is no federal nexus related to the project that would require preparation of the National Environmental Policy Act and Section 106 of the National Historic Preservation Act. This comment does not change the significance determination found in the EIR.

D-5 Please refer to Response to Comment D-2. As discussed in Section 4.4, Cultural Resources, in the Draft EIR, the project will be required to comply with California Public Resources Code, Section 5097.8 and California Health and Safety Code, Section 7050.5, should any unknown human remains be discovered during site disturbance. Potential impacts related to archaeological resources and inadvertent discovery of human remains will remain less than significant. This comment does not change the significance determination found in the EIR.

D-6 Comment noted. All tribes, groups, or individuals referenced in the attached list have been contacted (or an attempt has been made to contact these parties) in an effort to seek input into the planning process for the project. The NAHC provided a contact list of Native American groups/contacts in the project area and were included on the City's distribution list as appropriate due to geographic location. Pursuant to Senate Bill 18 consultation process, the City and the Pechanga Band of Luiseño Indians met on February 12, 2014. During the consultation process, Pechanga recommended that a qualified archaeologist (preferably from their Tribe) be present during any ground disturbing activities. Joe Ontiveros from the Sobobas indicated that no consultation process was needed, but recommended an archaeologist be present during ground disturbing activities. On December 13, 2013, Daniel McCarthy from the San Manuel Band of Mission Indians provided a response to the City of Riverside's consultation and stated that they were unaware of any sensitive cultural resources at the project site and have no concerns. If cultural resources are discovered during ground disturbing activities, the San Manuel Band of Mission Indians will be notified. This comment does not change the significance determination found in the EIR.

D-7 Comment noted. The commenter defines environmental justice per California Government Code 65040.12(e). The City of Riverside completed consultation with the local tribes (Pechanga, Soboba, and Morongo) per SB 18. This comment refers to a California Government Code section addressing environmental justice issues. The project site is not located within any known Native American past or present community that by developing the site would damage in some way. Additionally, CEQA does not require the analysis of environmental justice issues. This comment does not change the significance determinations in the EIR.

D-8 As discussed in Section 4.4, Cultural Resources, in the Draft EIR, based on the age of the structure, 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. 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. Mitigation Measures MM AES-3 and MM CUL-1 shall be implemented to ensure that the palm groves, including other mature trees in the vicinity of the palm trees and the mounded turf in the landscaped area where the trees are planted, as well as the palm grove at Newman Park, are taken into consideration when the Phase IIa approximately 100,000-square-foot mixed-use building and associated parking are designed. Mitigation Measure MM AES-2 shall be implemented to ensure that the alterations to Building B do not significantly impact the character-defining features of the building. 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. Mitigation Measure MM AES-1 shall be implemented to ensure that Calvary Presbyterian Church's historical designation as a City of Riverside Structure of Merit/Cultural Heritage Landmark, and National Register of Historic Places eligibility are not adversely affected. Mitigation Measure MM CUL-3 shall be implemented to ensure that grading activities during Phase I, Phase IIa, Phase IIb, and Phase IIc of the project would be monitored by a qualified archaeologist. Additionally, in response to a request by the Pechanga Band of Luiseño Indians (refer to Comment Letter F), the City added a new mitigation measure (MM CUL-5) into the Final EIR indicating that the City will notify local tribes 30 days prior to any ground disturbing activities during any phase of the project. The addition of this mitigation measure is not required to address an impact that was not already addressed and analyzed in the EIR. The addition of MM CUL-5 merely further clarifies the City's intentions for archaeological monitoring on the site. Mitigation Measure MM CUL-3[1] shall be implemented to ensure that proper measures are taken in the event that cultural resources are discovered during construction. Due to the history of the project site, it is recommended that an interpretive feature be installed to educate the public on the history of the site and to explain the story of RCH, which is outlined in MM CUL-4 [2]. Mitigation measures described above and as documented in Section

[1] There was a typo in the mitigation measure call out in the Draft EIR. Mitigation measure call out should have been MM CUL-3, not MM CUL-4. This has been documented in the Errata for the Final EIR.

[2] There was a typo in the mitigation measure call out in the Draft EIR. Mitigation measure call out should have been MM CUL-4, not MM CUL-5. This has been documented in the Errata for the Final EIR.

4.1, Aesthetics, and Section 4.4, Cultural Resources, in the Draft EIR, as well as mitigation measure to be incorporated in the Errata for the EIR (Section 3.0 of this Final EIR) include:

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 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 Refer to MM CUL-3 described above.

MM CUL-4 Refer to MM CUL-4 described above.

MM CUL-5 In addition to MM CUL-3 requiring all ground-disturbing activities during all construction phases of the project to be monitored by a

qualified archaeologist, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor.

This comment does not change the significance determination found in the EIR.

D-9 Comment noted. As discussed in Section 4.4, Cultural Resources, in the Draft EIR, the project will be required to comply with California Public Resources Code, Section 5097.8 and California Health and Safety Code, Section 7050.5, should any unknown human remains be discovered during site disturbance. Potential impacts related to inadvertent discovery of human remains will remain less than significant. This comment does not change the significance determination found in the EIR.

Comment Letter E

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Raymond Hicks, Region Manager
Local Public Affairs
26100 Menifee Road
Menifee, CA 92585

March 5, 2014

Steve Hayes
City of Riverside
Community Development Department
3900 Main Street, Third Floor
Riverside, CA 92522

Re: Riverside Community Hospital Specific Plan

Southern California Edison (SCE) appreciates the opportunity provide comments on the Draft Environmental Impact Report for the Riverside Community Hospital Specific Plan. Riverside Community Hospital is proposing a new Specific Plan on the project site. The site master plan has been developed and includes both short-term and long-range planning goals that cover construction over a 30-year period. The primary focus of Phase I of the project would include the construction of a new hospital bed tower (251,500 square feet, seven stories) to alleviate seismic concerns associated with the existing buildings. Phase II also addresses seismic concerns and includes potential future long-range development. E-1 E-2

SCE appreciates the opportunity to review proposed plans for the City. Riverside Public Utilities is the electrical service provider within the City of Riverside; therefore, no impacts to SCE's facilities are anticipated. E-3 E-4

If you have any questions regarding this letter, please do not hesitate to contact me at Raymond.Hicks@sce.com or (951) 928-8238. E-5

Regards,

Raymond Hicks

Raymond Hicks
Local Public Affairs Region Manager
Southern California Edison Company

cc: Karen Cadavona, SCE

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Response to Comment Letter E

Southern California Edison
March 14, 2014

E-1 The City appreciates Southern California Edison's (SCE's) review and comments provided on the Draft EIR. This comment does not change the significance determination found in the EIR.

E-2 Comment noted. The comment briefly summarizes the project. This comment does not change the significance determination found in the EIR.

E-3 The City appreciates SCE's review and comments provided on City projects. This comment does not change the significance determination found in the EIR.

E-4 Comment noted. The comment states that City of Riverside Public Utilities is the electrical service provider within the City; therefore, no impacts to SCE's facilities are anticipated by the project. This comment does not change the significance determination found in the EIR.

E-5 Comment noted. This comment does not change the significance determination found in the EIR.

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Comment Letter F

Brenes, Patricia

From: Anna Hoover <ahoover@pechanga-nsn.gov>
Sent: Friday, February 07, 2014 3:57 PM
To: Brenes, Patricia
Cc: Michele Fahley; Ebru Ozdil; Andrea Fernandez
Subject: RE: Riverside Community Hospital Expansion Project

Patricia,

Thank you for the link to the document. Unfortunately, it is disappointing to the Tribe that the DEIR and Specific Plan have been released for public review without consultation with the Tribe as requested in our SB18 letter. The Tribe specifically stated that we did not have enough information to provide our concerns and that we wanted a face-to-face with the City to discuss the project in more detail. Moreover, the DEIR only references Morongo's comments to the NOP, of which a request the Tribe never received, and that SB18 consultation is ongoing. We understand that SB18 continues until the Project is formally approved; however, consulting late in the process puts the Tribe at a disadvantage as the developer and lead agency are already heavily vested in the project and it is difficult to make any requested changes, if there are any. F-1 F-2

The DEIR also states that this is Gabrielino and Cahuilla territory. The Tribe has provided territory information to the City on multiple occasions that the portions of the City south of the Santa Ana were Luiseño while north of the Santa Ana were Serrano. The Cahuilla did not pass west of the San Jacinto Mountains until the late 1850s. F-3

In light of the information provided above and our existing request to consult with the City, we again request to have a face-to-face SB18 consultation with the City to review the DEIR and SP. The Tribe will be at the City offices on the afternoon of Wednesday the 12th to consult on other projects and we request to meet with the appropriate representatives to discuss this project as well. F-4

Thank you,

Anna M. Hoover
Cultural Analyst
Pechanga Band of Luiseno Mission Indians
P.O. Box 2183
Temecula, CA 92593

951-770-8104 (O)
951-694-0446 (F)
951-757-6139 (C)
ahoover@pechanga-nsn.gov

From: Brenes, Patricia [mailto:PBRENES@riversideca.gov]
Sent: Friday, February 07, 2014 3:22 PM
To: Anna Hoover
Cc: Brenes, Patricia
Subject: Riverside Community Hospital Expansion Project

Mrs. Hoover – I appreciate your prompt response to the letter sent out for compliance with SB 18 regarding the proposed Riverside Community Hospital expansion project. Please find attached the Cultural Resources Survey and Evaluation prepared for the project site. Further, the DEIR and Specific Plan for the project is out for public review from February 6, 2014 and March 24, 2014 and are available on line at http://www.riversideca.gov/planning/ Please scroll

1

down and you will find the documents in the middle of the page. If you have any questions or need any additional information, please do not hesitate to contact me.

Thank you,
Patricia

PATRICIA BRENES, SENIOR PLANNER
COMMUNITY DEVELOPMENT DEPARTMENT/ PLANNING DIVISION
3900 MAIN STREET, RIVERSIDE, CA 92522
PBRENES@RIVERSIDECA.GOV
951-826-5933

Brenes, Patricia

From:	Anna Hoover <ahoover@pechanga-nsn.gov>
Sent:	Monday, March 24, 2014 5:14 PM
To:	Brenes, Patricia
Cc:	Andrea Fernandez; Ebru Ozdil; Michele Fahley
Subject:	Pechanga Tribe Comments on the DEIR for the Riverside Community Hospital Project

Ms. Brenes,

These comments are written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe"), a federally recognized Indian tribe and sovereign government. The Tribe formally requests, pursuant to Public Resources Code §21092.2, to be notified and involved in the entire CEQA environmental review process for the duration of the above referenced project (the "Project"). If you have not done so already, please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archaeological reports, and all documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project. Please also incorporate these comments into the record of approval for this Project. F-5

The Tribe submits these comments concerning the Project's potential impacts to cultural resources in conjunction with the environmental review of the Project. Although the DEIR includes mitigation measures for an archaeological monitor during earthmoving activities, the Tribe is disconcerted on the lack of inclusion of a tribal monitor. Because of the age of construction of the buildings proposed for demolition, there is always the potential for impacts to unknown, buried tribal resources. Further, as stated in the DEIR, no archaeological survey was ever conducted of the Project site and thus, the sensitivity of this area for prehistoric resources is unknown. F-6

During our SB18 consultation, the Tribe provided information regarding the sensitivity of the area, including Luiseño named places within the City as well as our traditional territory maps. Based upon multiple ethnographic sources, tribal oral tradition and tribal songs, Luiseño territory extends to the Santa Ana River, which would have included the Project area. As we know, the City of Riverside once was densely populated with the Tribe's ancestors, and it is not unreasonable to expect vestiges of their presence to be identified during grading activities. F-7

Therefore, because of the unknown sensitivity of the area, the very deep excavation depths proposed for this Project and previous cultural resources identified in this area, the Tribe believes that the mitigation measures in the DEIR will not be complete without the inclusion of a tribal monitor during earthmoving activities. We also request that a provision be included for protocols should inadvertent finds of cultural and archaeological remains be identified. Please include the measures below in the Final Environmental Impact Report and all appropriate documentation regarding this Project. F-8

MM CUL-5 At least 30 days prior to beginning project construction, the Project Applicant shall contact the Pechanga Band of Luiseño Indians (Tribe) to notify them of grading, excavation and the monitoring program, and to develop a Cultural Resources Treatment and Monitoring Agreement between the Applicant and the Tribe. The

1

Agreement shall address the treatment of known cultural resources, the designation, responsibilities, and participation of professional Pechanga Tribal monitors during grading, excavation and ground disturbing activities; project grading and development scheduling; terms of compensation for the monitors; and treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site. In accordance with this agreement, the Tribal monitor shall be allowed to monitor all grading, excavation and groundbreaking activities and have the authority to stop and redirect grading, as appropriate, in order to evaluate the significance of any archaeological resource discovered on the property, in consultation with the archaeological monitor. F-8 Cont.

MM CUL-6 If inadvertent discoveries of subsurface archaeological/cultural resources are discovered during grading, the Developer, the project archaeologist, and the Tribe shall assess the significance of such resources and shall meet and confer regarding the mitigation for such resources. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources. If the Developer, the project archaeologist and the Tribe cannot agree on the significance or the mitigation for such resources, these issues will be presented to the Planning Director or other appropriate personnel for decision. The Planning Director or appropriate personnel shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources and shall take into account the religious beliefs, customs, and practices of the Tribe. Notwithstanding any other rights available under the law, the decision of the Planning Director shall be appealable to the Planning Commission and/or City Council. F-9

The Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment on the Project's impacts to cultural resources and potential mitigation for such impacts. F-10

The Pechanga Tribe looks forward to working together with the City of Riverside in protecting the invaluable Pechanga cultural resources found in the Project area. Please contact me at 951-770-8104 or at ahoover@pechanga-nsn.gov should you have any comments or questions. Please also inform us of the incorporation of these requests into the FEIR. Thank you. F-11

Anna M. Hoover
Cultural Analyst
Pechanga Band of Luiseno Mission Indians
P.O. Box 2183
Temecula, CA 92593

951-770-8104 (O)
951-694-0446 (F)
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ahoover@pechanga-nsn.gov

2

Response to Comment Letter F

Pechanga Band of Luiseño Indians
February 7, 2014 and March 24, 2014

F-1 Pursuant to Senate Bill 18 consultation process, the City and the Pechanga Band of Luiseño Indians met on February 12, 2014. During the consultation process, Pechanga recommended that a qualified archaeologist (preferably from their Tribe) be present during any ground disturbing activities. Measure MM CUL-3 has been revised to ensure that proper procedures are followed in the inadvertent discovery of the Tribes artifacts (see below). Additionally, Mitigation Measure MM CUL-5 (see below) has been added to notify local tribes of ground disturbing activities. This comment does not change the significance determination found in the EIR.

F-2 Please refer to Response to Comment F-1. The NAHC provided a contact list of Native American groups/contacts in the project area and were included on the City's distribution list as appropriate due to geographic location. This comment does not change the significance determination found in the EIR.

F-3 This comment about which native peoples were found in the current-day Riverside area does not change the significance of the EIR analysis.

F-4 Please refer to Response to Comment F-1. A meeting did occur between the Tribe and City on February 12, 2014. This comment does not change the significance determination found in the EIR.

F-5 The City acknowledges that the Pechanga Band of Luiseño Indians is a federally recognized Indian Tribe and sovereign government. The City contacted the Tribe and provided the electronic link to the Draft EIR and SP during the public review period. The City will include the Tribe in its mail out for public hearings. This comment does not change the significance determination found in the EIR.

F-6 The Draft EIR does include a provision of archaeological monitoring during earth moving activities to address any unknown or unexpected resources that may be found during construction. This comment requests a tribal monitor to be included. In response to this request, the City has added a new mitigation measure (MM CUL-5) into the Final EIR indicating that the City will notify local tribes 30 days prior to any ground disturbing activities during any phase of the project. The addition of this mitigation measure is not required to address an impact that was not already addressed and analyzed in the EIR. The addition of MM CUL-5 merely further clarifies the City's intentions for archaeological monitoring on the site. This comment does not change the

significance determination found in the EIR. The following mitigation measures will be added in the Errata for the EIR located in Section 3.0 of this Final EIR.

MM CUL-5 In addition to MM CUL-3 requiring all ground-disturbing activities during all construction phases of the project to be monitored by a qualified archaeologist, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor.

F-7 Comment noted. As discussed in Section 4.4, Cultural Resources, in the Draft EIR, the project involves a general plan amendment and specific plan amendment; therefore, Senate Bill 18 applies to the project. The consultation process for the project began on November 27, 2013, and ended on February 27, 2014. Mitigation Measure MM CUL-3 has been revised to ensure that proper procedures are followed in the inadvertent discovery of the Tribes artifacts. Additionally, Mitigation Measure MM CUL-5 has been added to notify local tribes of ground disturbing activities. Please also refer to Response to Comment D-6. This comment does not change the significance determination found in the EIR.

F-8 Mitigation Measure MM CUL-3 has been revised to ensure that proper procedures are followed in the inadvertent discovery of the Tribes artifacts. Additionally, a new mitigation measure (MM CUL-5) has been incorporated into the EIR indicating that the City will notify local tribes 30 days prior to any ground disturbing activities during any phase of the project so that the tribes can opt to attend the ground disturbing activities along with RCH's archaeological monitor.

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, and any unknown native American artifacts, 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.

Pursuant to Public Resources Code Section 5097.99, in the event Native American artifacts are discovered, work within the area of the discovery shall stop and the City shall consult with representatives of the Native American community to ensure the respectful treatment of Native American artifacts.

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-5 In addition to MM CUL-3 requiring all ground-disturbing activities during all construction phases of the project to be monitored by a qualified archaeologist, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor.

This comment does not change the significance determination found in the EIR.

F-9 This comment requests the addition of a new mitigation measure addressing the inadvertent discovery of artifacts. The City has preferred to revise MM CUL-3 which already was created to address mitigation for inadvertent discoveries. Please refer to amended Mitigation Measure MM CUL-3 above. This comment does not change the significance determination found in the EIR.

F-10 The City appreciates the Tribe's participation in the environmental review process and comments provided on the Draft EIR. This comment does not change the significance determination found in the EIR.

F-11 The City appreciates working closely with the Tribe in protecting the cultural resources found in the project area. This comment does not change the significance determination found in the EIR.

Comment Letter G

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

March 25, 2014

Patricia Brenes
City of Riverside
3900 Main Street, 3rd Floor
Riverside, CA 92522

Subject: Riverside Community Hospital Expansion Project
SCH#: 2013071102

Dear Patricia Brenes:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on March 24, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

G-1

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# **2013071102**
Project Title Riverside Community Hospital Expansion Project
Lead Agency Riverside, City of

Type **EIR** Draft EIR

Description RCH is proposing a new Specific Plan to guide future expansion plans on the RCH campus and clearly define the extent and location of future development on the RCH campus. A site master plan has been developed and includes both short-term and long-range planning goals that cover construction on the RCH campus over a 30-year period. The primary focus of Phase I of the proposed 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 State Bill 1953. Phase II of the proposed project also addresses seismic concerns and includes future and possible long-range development.

Lead Agency Contact

Name Patricia Brenes
Agency City of Riverside
Phone 951 826 5933 ***Fax***
email
Address 3900 Main Street, 3rd Floor
City Riverside ***State*** CA ***Zip*** 92522

Project Location

County Riverside
City Riverside
Region
Lat / Long 33° 58' 25" N / 117° 22' 53" W
Cross Streets Magnolia Avenue and 14th Street
Parcel No. Various
Township 2S ***Range*** 5W ***Section*** 23 ***Base***

Proximity to:

Highways SR-91, 60
Airports Flabob
Railways Amtrack/Metrolink
Waterways Santa Ana River
Schools Grant ES
Land Use Hospital/DSP-HC - Downtown Specific Plan - Health Care District/Downtown Specific Plan

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 6; Office of Historic Preservation, Department of Parks and Recreation; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 8; Air Resources Board; Air Resources Board, Major Industrial Projects; Regional Water Quality Control Board, Region 8; Native American Heritage Commission; Public Utilities Commission; Statewide Health Planning

Date Received 02/06/2014 ***Start of Review*** 02/06/2014 ***End of Review*** 03/24/2014

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STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916) 373-3715
Fax (916) 373-5471
Web Site www.nahc.ca.gov
Ds_nahc@pacbell.net
e-mail: ds_nahc@pacbell.net

March 4, 2014

Ms. Patricia Brenes
City of Riverside
3900 Main Street, Third Floor
Riverside, CA 92522

RECEIVED
MAR 06 2014
STATE CLEARING HOUSE

Sent by U.S. Mail
No. of Pages: 4

RE: SCH#2013071102; CEQA Notice of Completion; Draft Environmental Impact Report (RDEIR) for the **"Riverside Community Hospital Specific Plan Expansion Project EIR;"** located in the City of Riverside; Riverside County, California

Dear Ms. Brenes

The Native American Heritage Commission (NAHC) has reviewed the above-referenced environmental document.

The California Environmental Quality Act (CEQA) states that any project which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064.5(b).. To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, pursuant to California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. Also, California Public Resources Code Section 21083.2 require documentation and analysis of archaeological items that meet the standard in Section 15064.5 (a)(b)(f). G-2

If there is federal jurisdiction of this project due to funding or regulatory provisions; then the following may apply: the National Environmental Policy Act (NEPA 42 U.S.C 4321-43351) and Section 106 of the National Historic Preservation Act (16 U.S.C 470 *et seq.*) and 36 CFR Part 800.14(b) require consultation with culturally affiliated Native American tribes to determine if the proposed project may have an adverse impact on cultural resources

We suggest that this (additional archaeological activity) be coordinated with the NAHC, if possible. The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. Any information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure pursuant to California Government Code Section 6254.10.

A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter to determine if the proposed active might impinge on any cultural resources.

California Government Code Section 65040.12(e) defines "environmental justice" to provide "fair treatment of People…with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies." (The California Code is consistent with the Federal Executive Order 12898 regarding 'environmental justice.' Also, applicable to state agencies is Executive Order B-10-11 requires consultation with Native American tribes their elected officials and other representatives of tribal governments to provide meaningful input into the development of legislation, regulations, rules, and policies on matters that may affect tribal communities.

G-2 Cont.

Lead agencies should consider first, avoidance for sacred and/or historical sites, pursuant to CEQA Guidelines 15370(a). Then if the project goes ahead then, lead agencies include in their mitigation and monitoring plan provisions for the analysis and disposition of recovered artifacts, pursuant to California Public Resources Code Section 21083.2 in consultation with culturally affiliated Native Americans.

Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Dave Singleton
Program Analyst

CC: State Clearinghouse

Attachment: Native American Contacts list

Response to Comment Letter G

Governor's Office of Planning and Research, State Clearinghouse and Planning Unit March 25, 2014

G-1 This comment is a response from the State Clearinghouse stating that the agency has forwarded the Draft EIR to state agencies for review. This comment does not change the significance determination found in the EIR.

G-2 Please refer to Response to Comment Letter D. This comment does not change the significance determination found in the EIR.

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Comment Letter H

Southern California Gas Company
A Sempra Energy company

March 29, 2014

Southern California
Gas Company

9400 Oakdale Avenue
Chatsworth, CA
91311

Mailing Address:
P. O. Box 2300
Chatsworth, CA
91313-2300
M.L.9314

tel 818-701-4546
fax 818-701-4554

City of Riverside
Attn: Patricia Pbrenes
3900 Main Steet
Riverside, CA 92522

Email: pbrenes@riversideca.gov

Subject: **Riverside Community Hospital Expansion**
4445 Magnolia Avenue in Riverside

Southern California Gas Company Transmission Department does not operate facilities within your proposed improvement. However, our Northern Distribution Region may have some distribution facilities within your construction area. H-1

To assure no conflict with the local distribution's pipeline system, please contact them at (**909**) **335- 7507**.

Sincerely,

Rosalyn Squires
Transmission Pipeline Planning Assistant
(818) 701-4546

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Response to Comment Letter H

Southern California Gas Company
March 29, 2014

H-1 The comment states Southern California Gas Company does not operate facilities within the project site, but to contact the Northern Distribution Region. Dudek contacted the Northern Distribution Region on behalf of the City on April 3, 2014 and was informed that there are distribution facilities within the project area. The City will coordinate with the Northern Distribution Region during the plan check process to ensure there is no conflict with the local distribution's pipeline system with implementation of the project. This comment does not change the significance determination found in the EIR.

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CHAPTER 3.0
ERRATA TO DRAFT EIR

3.1 INTRODUCTION

As provided in Section 15088(c) of the California Environmental Quality Act (CEQA) Guidelines, responses to comments may take the form of a revision to a Draft Environmental Impact Report (EIR) or may be a separate section in the Final EIR. This section complies with the latter and provides changes to the Draft EIR presented in strikethrough text (i.e., ~~strikethrough~~) signifying deletions and underline (i.e., <u>underline</u>) signifying additions. These notations are meant to provide clarification, corrections, or minor revisions as needed as a result of public comments or because of changes in the project since the release of the Draft EIR as required by Section 15132 of the CEQA Guidelines. None of the corrections and additions constitutes significant new information or substantial project changes requiring recirculation as defined by Section 15088.5 of the CEQA Guidelines.

3.2 CHANGES TO THE DRAFT EIR

Changes to the Draft EIR are summarized in Table 3-1. Page numbers correspond to the Draft EIR. Revisions to the Draft EIR (Executive Summary; 2.0, Project Description; 4.1, Aesthetics; 4.2, Air Quality; 4.4, Cultural Resources; 4.5, Greenhouse Gas Emissions; 4.7, Hydrology/Water Quality; and 4.11, Utilities and Service Systems) are included as an Appendix (Appendix A) to this section.

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Table 3-1
Draft EIR Revisions

Location: Section, Page	Revision				Summary
Executive Summary, Table ES-1 under Aesthetics a. Scenic vista effects, Page ES-11	**Environmental Topic**	**Impact Before Mitigation**	**Mitigation Measure(s)**	**Level of Significance After Mitigation**	MM AES-1 was not needed to reduce impacts related to scenic views to Mount Rubidoux or San Bernardino Mountains from the Calvary Presbyterian Church. Impacts to the church for these views was found to be less than significant since there are no existing views to these resources from main gathering places of the church. Therefore, MM AES-1 has been removed from Table ES-1, Summary of Environmental Impacts and Mitigation Measures related to scenic vistas and no applicable mitigation measures are needed.
	Aesthetics				
	a. Scenic vista effects	~~Potentially~~ Less than 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.~~ N/A	~~Less than significant~~N/A	
Executive Summary, Table ES-1 under Aesthetics c., Page ES-12	**Environmental Topic**	**Impact Before Mitigation**	**Mitigation Measure(s)**	**Level of Significance After Mitigation**	MM AES-1 was moved from the threshold question related to scenic vistas to visual quality/character degradation in order to reduce indirect impacts to Phase IIb and Phase IIc from Calvary Presbyterian Church. The addition of this mitigation measure does not change the significance determinations or the analysis that was contained within the Draft EIR
	Aesthetics				
	c. Visual quality/character degradation	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	Less than significant	

Table 3-1
Draft EIR Revisions

Location: Section, Page	Revision				Summary
			provide a sense of depth to the building. 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.		
Executive Summary, Table ES-1 under Air Quality b., Page ES-15	**Environmental Topic**	**Impact Before Mitigation**	**Mitigation Measure(s)**	**Level of Significance After Mitigation**	MM AQ-2 was clarified to note an air quality technical report would be prepared during the review of future permits or during the environmental review process for future discretionary permits for Phase IIc of the project. The revision to this mitigation measure does not change the significance determinations or the analysis that was contained within the Draft EIR.
	b. Projected air quality violation	Potentially significant	**MM AQ-2:** During the review of future permits for Phase IIc of the Riverside Community Hospital Expansion Project or 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	Significant	

Table 3-1
Draft EIR Revisions

Location: Section, Page	Revision				Summary
			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 (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 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		

Table 3-1
Draft EIR Revisions

Location: Section, Page	Revision				Summary
			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.		
Executive Summary, Table ES-1 under Cultural Resources a., Page ES-22 through ES-23	**Environmental Topic**	**Impact Before Mitigation**	**Mitigation Measure(s)**	**Level of Significance After Mitigation**	In response to comments from the Pechanga Tribe, Table ES-1 has been updated per revisions to the mitigation measures in Section 4.4, Cultural Resources section of the Draft EIR. The revision to MM CUL-3 and addition of MM CUL-5 does not change the significance determinations or the analysis that was contained within the Draft EIR.
	Cultural Resources				
	a. Adverse change in the significance of a historical resource	Potentially significant	**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, <u>and any unknown Native American artifacts,</u> 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. <u>Pursuant to Public Resources Code Section 5097.99, in the event Native American artifacts are discovered, work within the area of the discovery shall stop and the City shall consult with representatives of the Native American community to ensure the respectful treatment of Native American artifacts.</u> 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	Less than significant	

Table 3-1
Draft EIR Revisions

Location: Section, Page	Revision				Summary
			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. **MM CUL-5:** In addition to MM CUL-3 requiring all ground-disturbing activities during all construction phases of the project to be monitored by a qualified archaeologist, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor.		
Executive Summary, Table ES-1 under Cultural Resources b., Page ES-24	**Environmental Topic**	**Impact Before Mitigation**	**Mitigation Measure(s)**	**Level of Significance After Mitigation**	In response to comments from the Pechanga Tribe, a new mitigation measure, MM CUL-5, was added. Table ES-1 has been updated per revisions to the mitigation measures in Section 4.4, Cultural Resources section of the Draft EIR. The addition of this mitigation measure does not change the significance determinations or the analysis that was contained within the Draft EIR.
	Cultural Resources				
	b. Adverse change in the significance of an archaeological resource	Potentially significant	**MM CUL-5:** See above.	Less than significant	
2.0, Project Description, Page 2-1	RCH consists of ~~12~~11 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, and 217-300-015~~, and 217-111-048~~).				The correct project Assessor's Parcel Numbers has been included.
4.1 Aesthetics, Page 4.1-12	Phase IIb includes construction of another new hospital bed tower closer to the Calvary Presbyterian Church. Currently, there are no views of Mount Rubidoux or the San Bernardino Mountains from the main entrance and main gathering places of Calvary Presbyterian Church; the main gather places generally face north and have views of the existing hospital buildings. Mt. Rubidoux is located to the west of the main gathering places of the church and the San Bernardino Mountains are located north of the existing hospital buildings which block those views from the church. Therefore, visitors and parishioners do not currently have prominent views due to the existing hospital buildings and with Phase II buildings, there would be no views obstructed by the project and impacts are **considered less than significant**. ~~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.~~				It needed to be clarified that MM AES-1 was not needed to reduce impacts related to scenic views to Mount Rubidoux or San Bernardino Mountains from the Calvary Presbyterian Church. Impacts to the church for these views was found to be less than significant since there are no existing views to these resources from main gathering places of the church.
4.1, Aesthetics, Page 4.1-12	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.~~				Since it was determined that mitigation was not needed to address the already less than significant impacts related to scenic views of Mount Rubidoux and the San Bernardino Mountains to Calvary Presbyterian Church, the text was updated to reflect this.
4.1, Aesthetics, Page 4.1-28	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. Additionally, MM AES-1 will be implemented to address the indirect design compatibility impacts of Phase IIb and IIc on Calvary Presbyterian Church. Therefore, impacts as a result of Phases IIb and IIc are considered **less than significant with mitigation incorporated.**				MM AES-1 was determined to be more related to the potential impact of land use compatibility issues related to the Phase IIb and Phase IIc buildings to Calvary Presbyterian Church. Text was updated to reflect

Table 3-1
Draft EIR Revisions

Location: Section, Page	Revision	Summary
		incorporation of this mitigation measure into the significance determination.
4.2, Air Quality, Page 4.2-13	The federal NO_2 standard was revised in 2010, and all areas of California have been designated unclassifiable/~~non~~attainment.	A typo in the national designation/classification was noted in the passage. The federal NO_2 standard has been revised to match Table 4.2-2, SCAB Attainment Classification in the EIR.
4.4, Cultural Resources, Page 4.4-21	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**). Additionally, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor (**MM CUL-5**). Impacts would be considered **less than significant with mitigation incorporated**.	In response to comments from the Pechanga Tribe, a new mitigation measure, MM CUL-5, was added. The addition of this mitigation measure does not change the significance determinations or the analysis that was contained within the Draft EIR.
4.4, Cultural Resources, Page 4.4-22	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~~2~~3** 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.	The wrong mitigation measure reference was provided in this passage. The correct measure for this impact is MM CUL-3.
4.4, Cultural Resources, Page 4.4-23	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~~4**). Impacts would be considered less than significant with mitigation incorporated.	The wrong mitigation measure reference was provided in this passage. The correct measure for this impact is MM CUL-4.
4.4, Cultural Resources, Page 4.4-24	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**). Additionally, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor (**MM CUL-5**). Impacts would be considered **less than significant with mitigation incorporated**.	In response to comments from the Pechanga Tribe, a new mitigation measure, MM CUL-5, was added. The addition of this mitigation measure do not change the significance determinations or the analysis that was contained within the Draft EIR.
4.4, Cultural Resources, Page 4.4-25	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~~2~~3** would ensure that proper measures are taken in the event that cultural resources are discovered during construction of Phase IIa.	The wrong mitigation measure reference was provided in this passage. The correct measure for this impact is MM CUL-3.
4.4, Cultural Resources, Page 4.4-25	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-43).**	The wrong mitigation measure reference was provided in this passage. The correct measure for this impact is MM CUL-3.
4.4, Cultural Resources, Page 4.4-26 through 4.4-27	**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, and any unknown Native American artifacts, 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. Pursuant to Public Resources Code Section 5097.99, in the event Native American artifacts are discovered, work within the area of the discovery shall stop and the City shall consult with representatives of the Native American community to ensure the respectful treatment of Native American artifacts. 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.	In response to comments from the Native American Heritage Commission and Pechanga Tribe, the following additions were added to MM CUL-3. The changes to this mitigation measure do not change the significance determinations or the analysis that was contained within the Draft EIR.

Table 3-1
Draft EIR Revisions

Location: Section, Page	Revision	Summary
4.4, Cultural Resources, Page 4.4-27	**MM CUL-5:** In addition to MM CUL-3 requiring all ground-disturbing activities during all construction phases of the project to be monitored by a qualified archaeologist, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor.	In response to a comment from the Pechanga Tribe requesting more involvement from the Pechanga during earthmoving activities, the following mitigation measure was added to the EIR. This mitigation measure does not change the significance determinations or create new impacts that were already identified in the EIR analysis.
4.5, Greenhouse Gases, Page 4.5-27	While applicable to the project's criteria pollutant emissions, mitigation measure **MM AQ-~~1~~2** would result in a reduction in construction GHG emissions, although the specific reductions cannot be quantified as the effectiveness of these measures is unknown.	The wrong mitigation measure reference was provided in this passage. The correct measure for this impact is MM AQ-2.
4.7, Hydrology/Water Quality, Page 4.7-2	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~~ In 2010, 100 percent of RPU~~'s water~~ potable supply ~~consists~~consisted 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).	Text has been updated consistent with the City of Riverside Public Utilities Final 2010 Urban Water Management Plan.
4.11, Utilities and Service Systems, Page 4.11-1	Per the IS/NOP (see Appendix A) and a letter, dated June 10, 2013, from the water purveyor, RPU, ~~Todd Jorgenson, that~~ indicates that ~~RPU anticipates~~ sufficient surplus water supplies are available to meet the incremental increase in water demand for all phases of the project (Jorgenson 2013) (see Appendix F for more information)~~, the~~ 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).	Text has been updated for further clarification.

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CHAPTER 4.0
MITIGATION MONITORING AND REPORTING PROGRAM

4.1 INTRODUCTION

The California Public Resources Code, Section 21081.6, requires that a lead or responsible agency adopt a mitigation monitoring plan when approving or carrying out a project when an Environmental Impact Report (EIR) identifies measures to reduce potential adverse environmental impacts. As lead agency for the project, the City is responsible for adoption and implementation of the mitigation monitoring plan.

A Draft EIR for the project has been prepared to address the potential environmental impacts and, where appropriate, recommend measures to mitigate these impacts. As such, a mitigation monitoring plan is required to ensure that the adopted mitigation measures are successfully implemented. This plan lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties.

4.2 MONITORING AND REPORTING PROCEDURES

The mitigation monitoring plan for the project will be in place through all phases of the project, including design, construction, and operation. The City will be responsible for administering the mitigation monitoring plan and ensuring that all parties comply with its provisions. The City may delegate monitoring activities to staff, consultants, or contractors. The City will also ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected. The designated environmental monitor will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to rectify problems.

Table 4-1 lists each mitigation measure included in the Draft EIR. Certain inspections and reports may require preparation by qualified individuals and these are specified as needed. The timing and method of verification for each measure are also specified.

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
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.	Phase IIb and Phase IIc Design Review/Plan Check	Community Development Department/Planning Division
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.	Phase I Design Review/Plan Check/Construction	Community Development Department/Planning Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
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.	Phase IIa Design Review/Plan Check/Construction	Community Development Department/Planning Division
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.	Phase I, Phase IIa, Phase IIb, and Phase IIc Construction	Community Development Department/Planning Division
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.	Phase I, Phase IIa, Phase IIb, Phase IIc Design Review/Plan Check/Construction	Community Development Department/Planning Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
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.	Phase I, Phase IIa, Phase IIb, Phase IIc Construction	Community Development Department/Building and Safety Division and Public Works Department
AQ-2	During the review of future permits for Phase IIc of the Riverside Community Hospital Expansion Project or 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.	Phase IIc permitting process	Community Development Department/Planning Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
	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		

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
	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.		
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.	Phase I, Phase IIa, Phase IIb, and Phase IIc Construction	Community Development Department/Code Enforcement Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
	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.		
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	Phase I, Phase IIa, Phase IIb, and Phase IIc Pre-Construction	Community Development Department/Planning Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
	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.		
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.	Phase IIa Design Review/Plan Check/ Construction	Community Development Department/Planning Division
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 issuances 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 of the lower part of the building will be required.	Prior to issuance of Phase I building permits	Community Development Department/Planning Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
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, and any unknown Native American artifacts, 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. Pursuant to Public Resources Code Section 5097.99, in the event Native American artifacts are discovered, work within the area of the discovery shall stop and the City shall consult with representatives of the Native American community to ensure the respectful treatment of Native American artifacts. 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.	Phase I, Phase IIa, Phase IIb, and Phase IIc Construction	Community Development Department/Planning Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
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.	Prior to issuance of occupancy permits for Phase IIb	Community Development Department/Planning Division
CUL-5	In addition to MM CUL-3 requiring all ground-disturbing activities during all construction phases of the project to be monitored by a qualified archaeologist, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor.	30 days prior to Phase I, Phase IIa, Phase IIb, and Phase IIc ground disturbing activities	RCH in coordination with Community Development Department/Planning Division
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.	Prior to demolition activities for Phase I, Phase IIa, and Phase IIb	Community Development Department/Planning Division
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.	Prior to grading and/or subsurface work for Phase I, Phase IIa, Phase IIb, and Phase IIc	Community Development Department/Building and Safety Division
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.	Pre-Construction	Community Development Department/Building and Safety Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
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.	Prior to Phase IIb demolition activities	Community Development Department/Building and Safety Division and Public Works Department
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.	Prior to issuance of grading permits of Phase I, Phase IIa, Phase IIb, and Phase IIc	Community Development Department/Planning Division
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	During Phase IIa, Phase IIb, or Phase IIc permitting process	Community Development Department/Planning Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
	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.		
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.	Phase I, Phase IIa, Phase IIb, and Phase IIc Pre-Construction	Community Development Department/Planning Division
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.	Phase I Pre-Operation	Public Works Department
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.	Phase I Pre-Operation	Public Works Department
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.	Phase I Pre-Operation	Public Works Department
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.	Phase IIa Pre-Operation	Public Works Department

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
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.	Phase IIa Pre-Operation	Public Works Department
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.	Phase IIa Pre-Operation	Public Works Department
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.	Phase I Construction	Public Works Department
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.	Phase I Construction	Public Works Department
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.	Phase I, Phase IIa, Phase IIb, Phase IIc Operation	Community Development Department/Planning Division and Public Works Department
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).	Phase I, Phase IIa, Phase IIb, Phase IIc Operation	Public Works Department
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	Phase I, Phase IIa, Phase IIb, Phase IIc Pre-Construction (Construction Waste Recycling Plan); Phase I, Phase IIa, Phase IIb, Phase IIc Pre-Operation (Construction Waste Recycling Plans and	Community Development Department/Planning Division

Table 4-1
Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measure	Timing of Implementation	Responsible Party
	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.	Waste Recycling Reports)	
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.	Phase I, Phase IIa, Phase IIb, Phase IIc Pre-Construction	Community Development Department/Planning Division

APPENDIX A

Changes to the Draft EIR Sections

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).

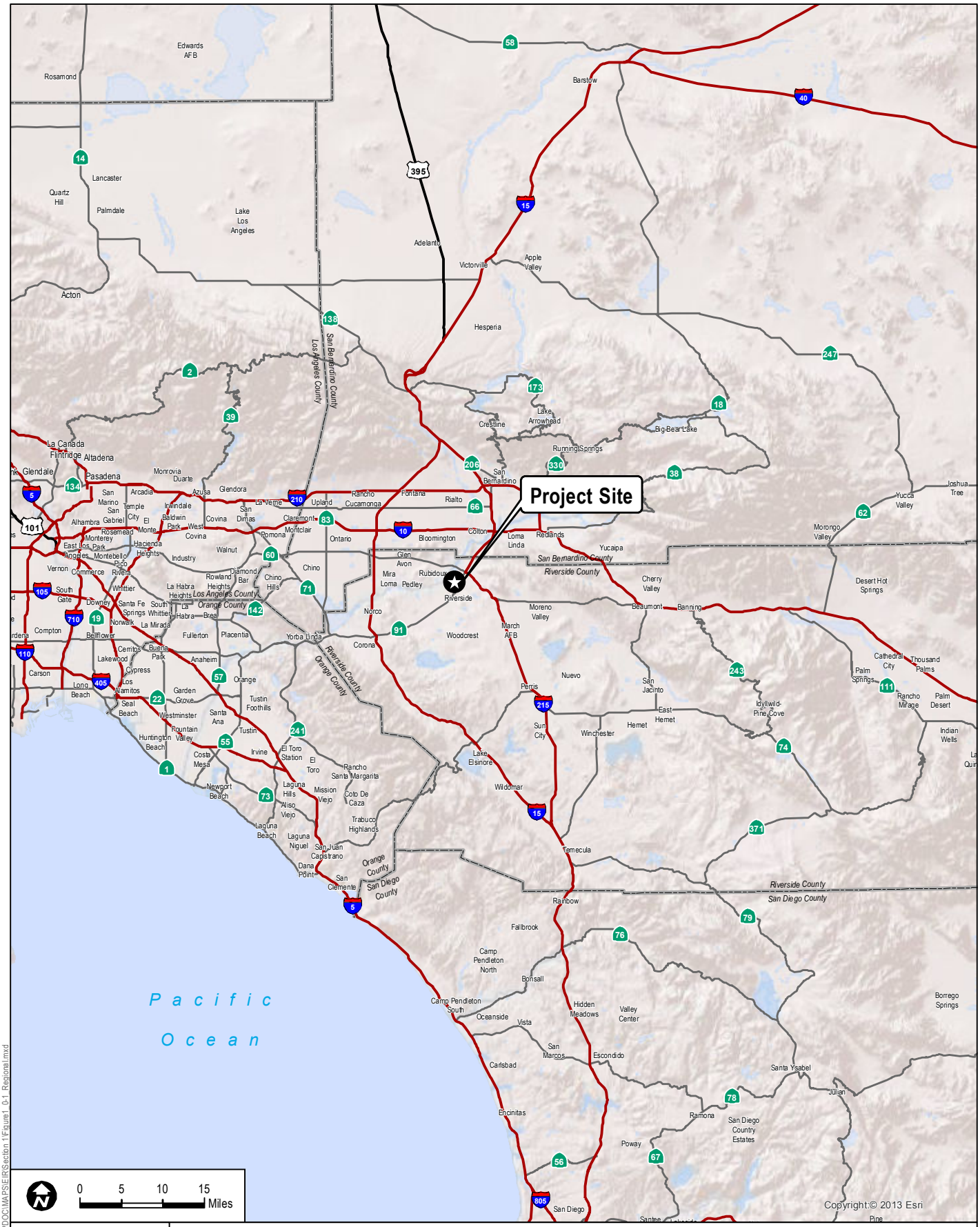
The uses adjacent to the project site are residences to the northwest; Grant Elementary School and a gas station to the north; muffler services to the northeast; Newman Park and Community Medical Group of Riverside to the east; Riverside City College to the southeast; Calvary Presbyterian Church, Evans 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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SOURCE: ESRI 2013

FIGURE ES-1
Regional Map

7824-01

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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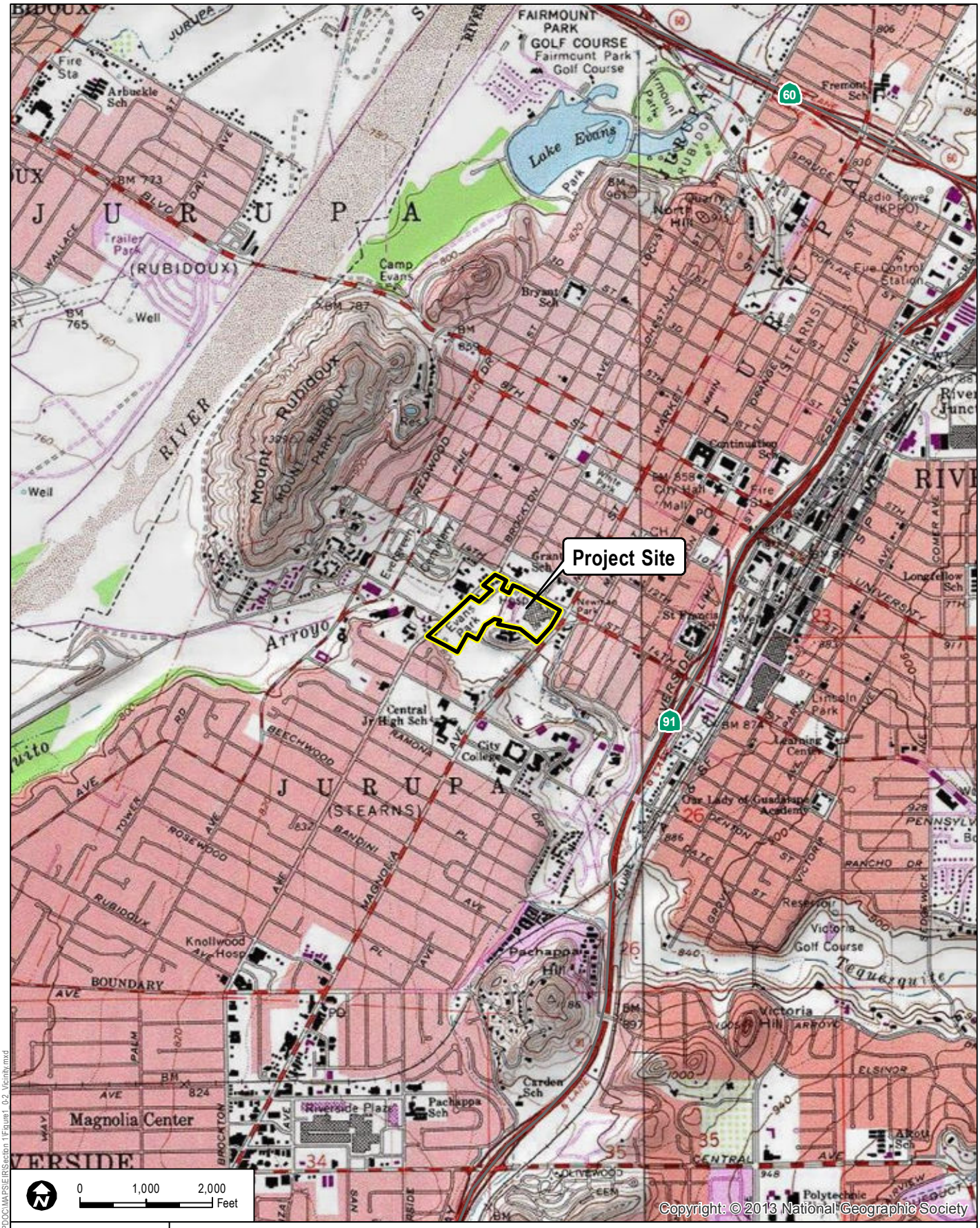

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SOURCE: USGS 7.5-Minute Series Quadrangle (Riverside West, Riverside East)

FIGURE ES-2
Vicinity Map

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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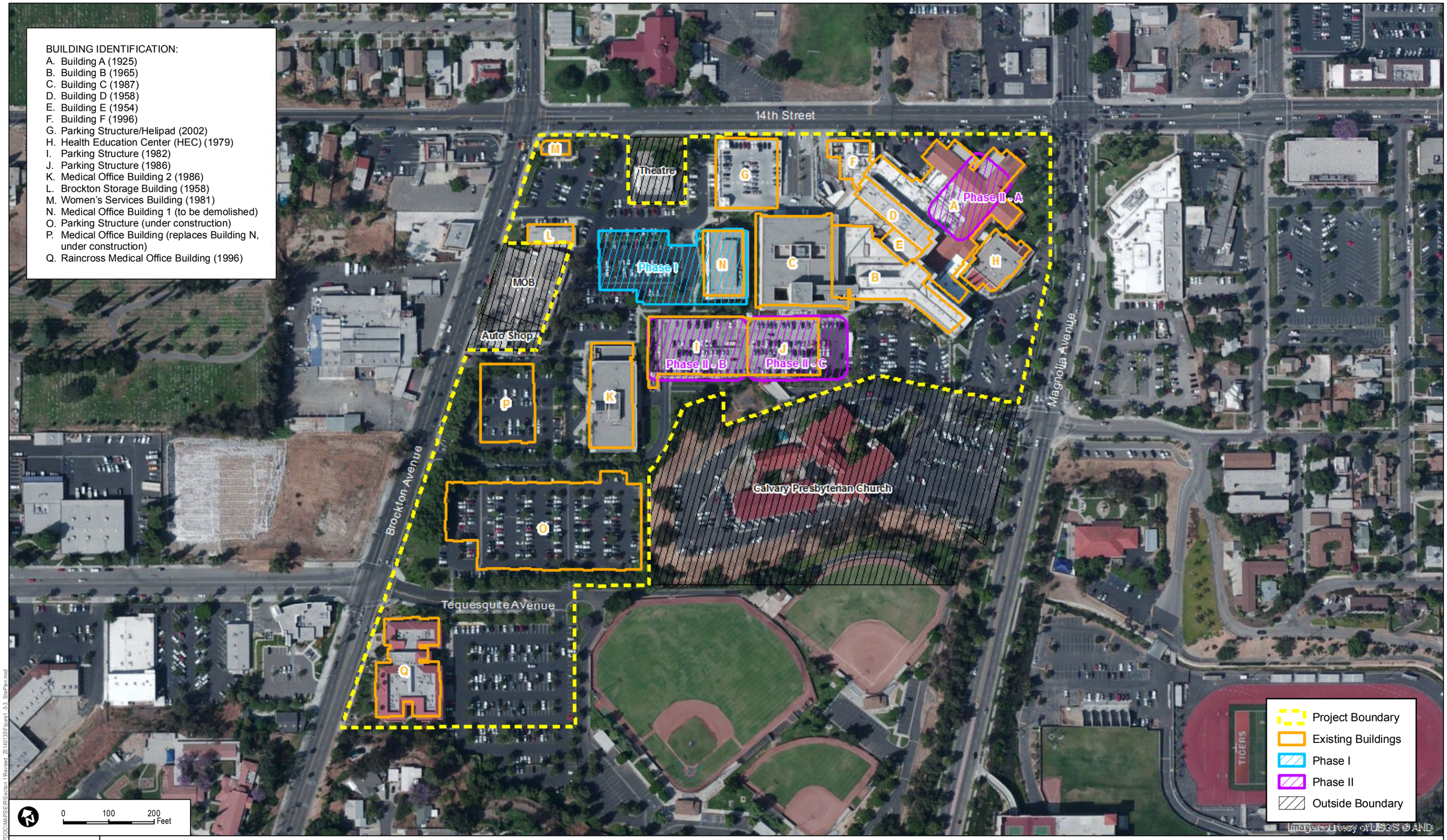

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SOURCE: Kimley-Horn and Associates, Perkins+Will , BING

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~~Less than 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.~~N/A	~~Less than significant~~N/A
b. Scenic resource damage	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
c. Visual quality/character degradation	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. 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	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
		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.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		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
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.	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		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 review of future permits for Phase IIc of the Riverside Community Hospital Expansion Project or 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	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		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 (NOx) from construction equipment: a. Heavy-duty diesel-powered construction equipment rated at greater than 50 horsepower shall be equipped with Tier 4 or	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		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.	
c. Cumulatively considerable net increase of criteria pollutants	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
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 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	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		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	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		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
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

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
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. **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	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
		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, and any unknown Native American artifacts, 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. Pursuant to Public Resources Code Section 5097.99, in the event Native American artifacts are discovered, work within the area of the	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		discovery shall stop and the City shall consult with representatives of the Native American community to ensure the respectful treatment of Native American artifacts. 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. **MM CUL-5:** In addition to MM CUL-3 requiring all ground-disturbing activities during all construction phases of the project to be monitored by a qualified archaeologist, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor.	
b. Adverse change in significance of an archaeological resource	Potentially significant	**MM CUL-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-4: See above. **MM CUL-5: See above.**	
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
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.	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 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.	
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

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
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
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.	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		• 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,	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		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.	
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.	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 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.	

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-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.	
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

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Topic	Impact Before Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
h. Cumulative impacts to transportation, specifically conflicts with an applicable congestion management program	Potentially significant	N/A	Significant
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 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~~11 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, and 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).

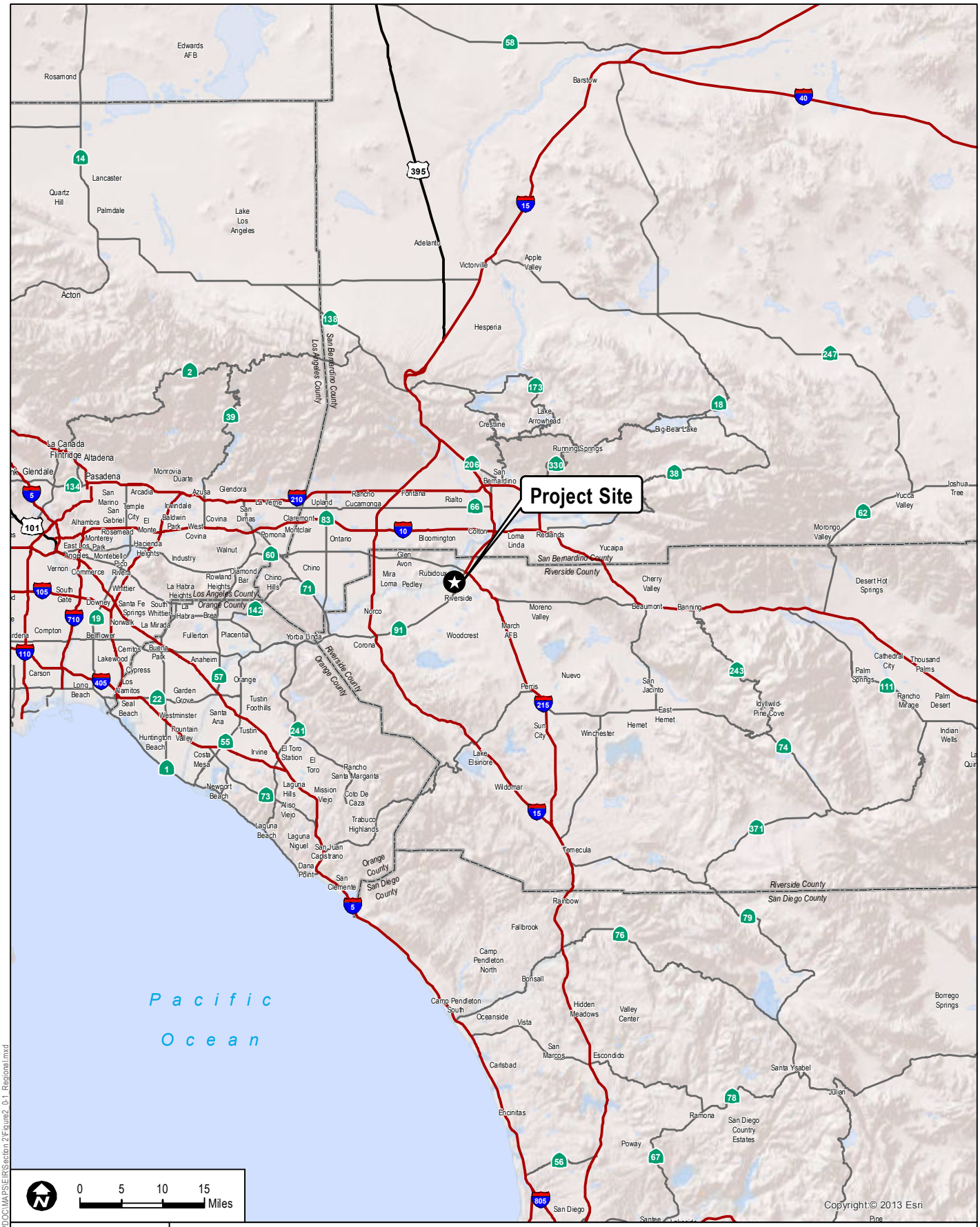
2.2.1 Previous Approvals/History of Project Changes

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

7824-01

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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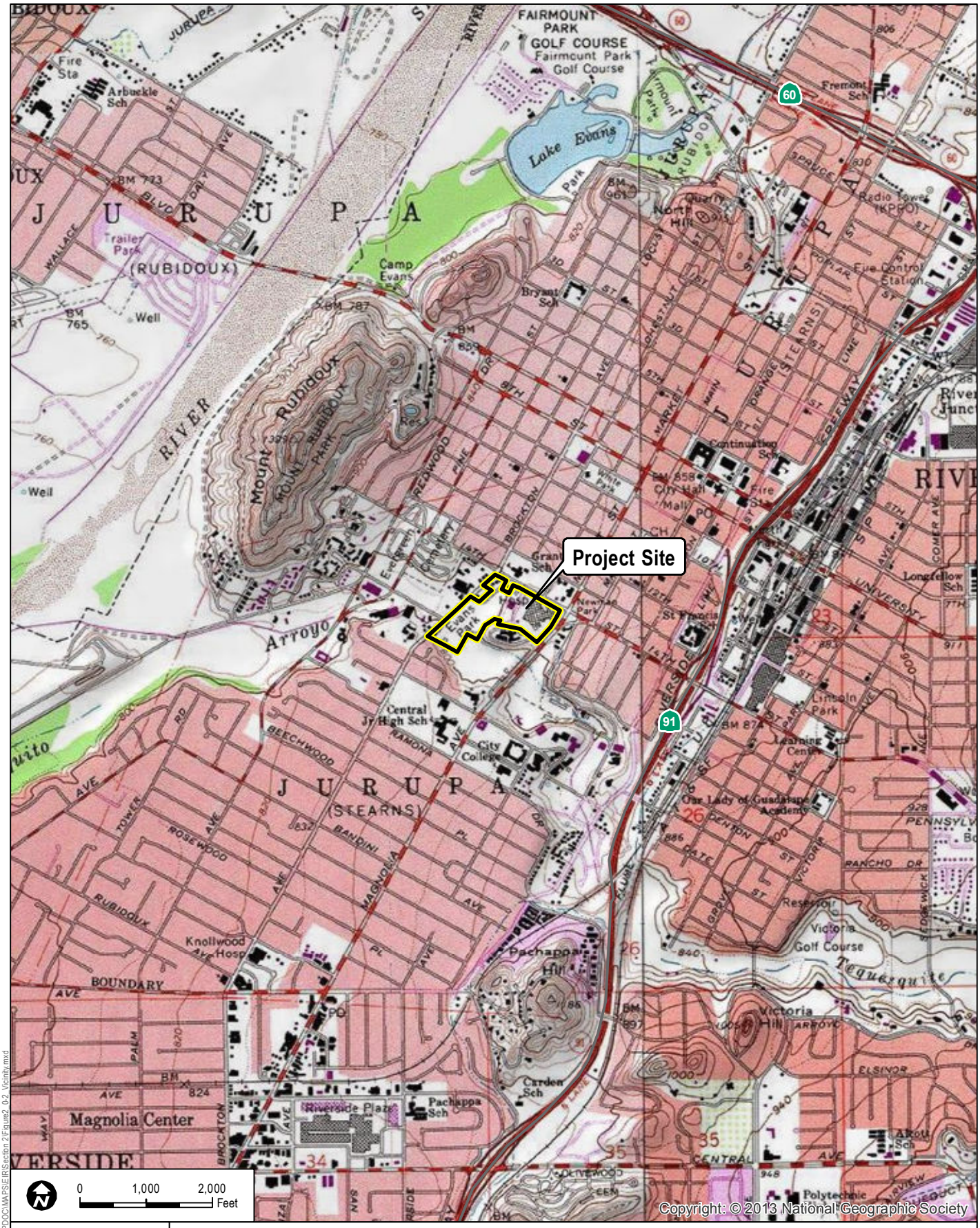

SOURCE: USGS 7.5-Minute Series Quadrangle (Riverside West, Riverside East)

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7824-01

FIGURE 2.0-2
Vicinity Map

RIVERSIDE COMMUNITY HOSPITAL SPECIFIC PLAN EXPANSION PROJECT

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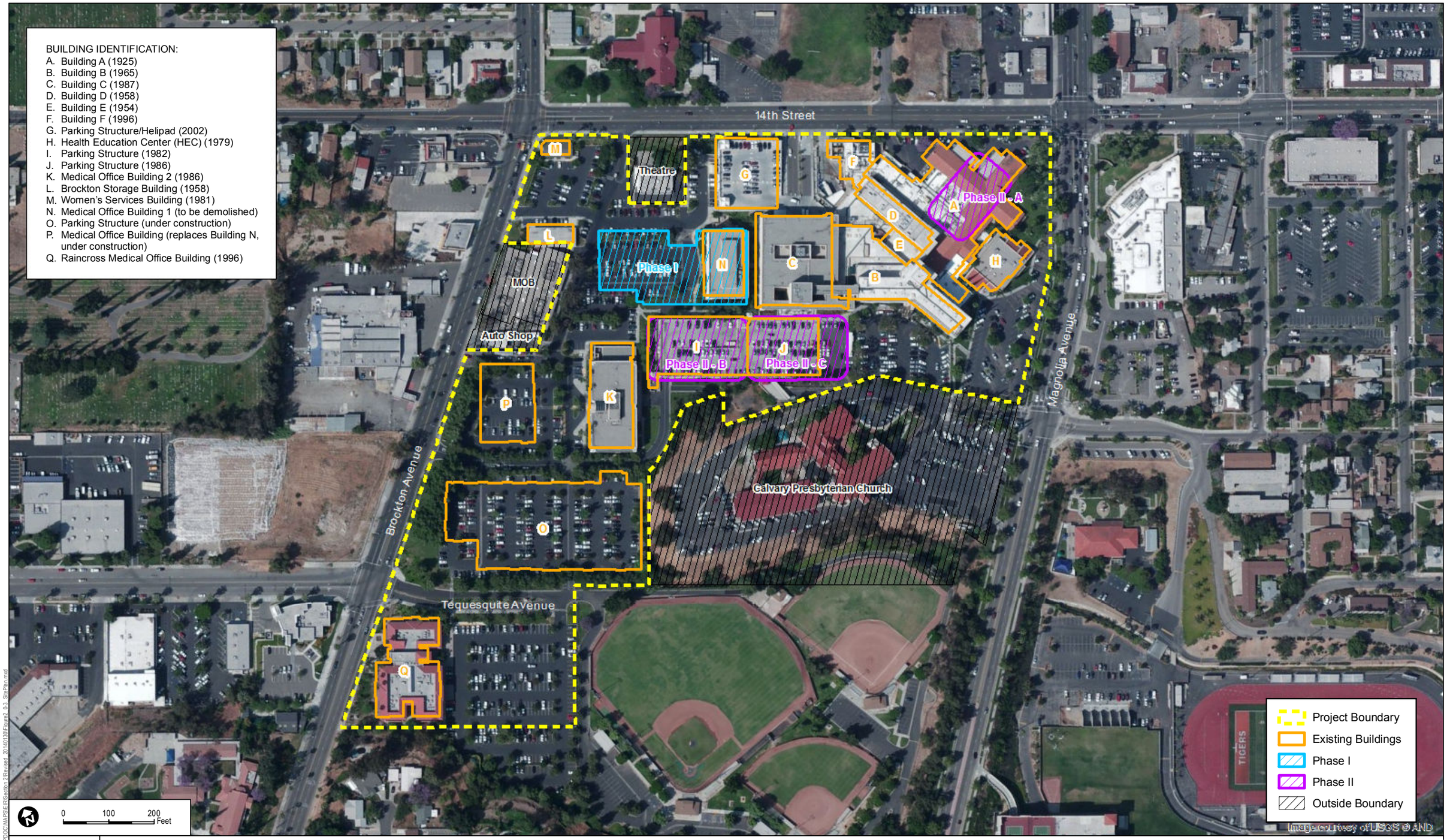

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7824-01

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)).
	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.

Table 2.0-6
Project Design Features to Reduce Greenhouse Gases

Building Component	Design Feature
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.

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)

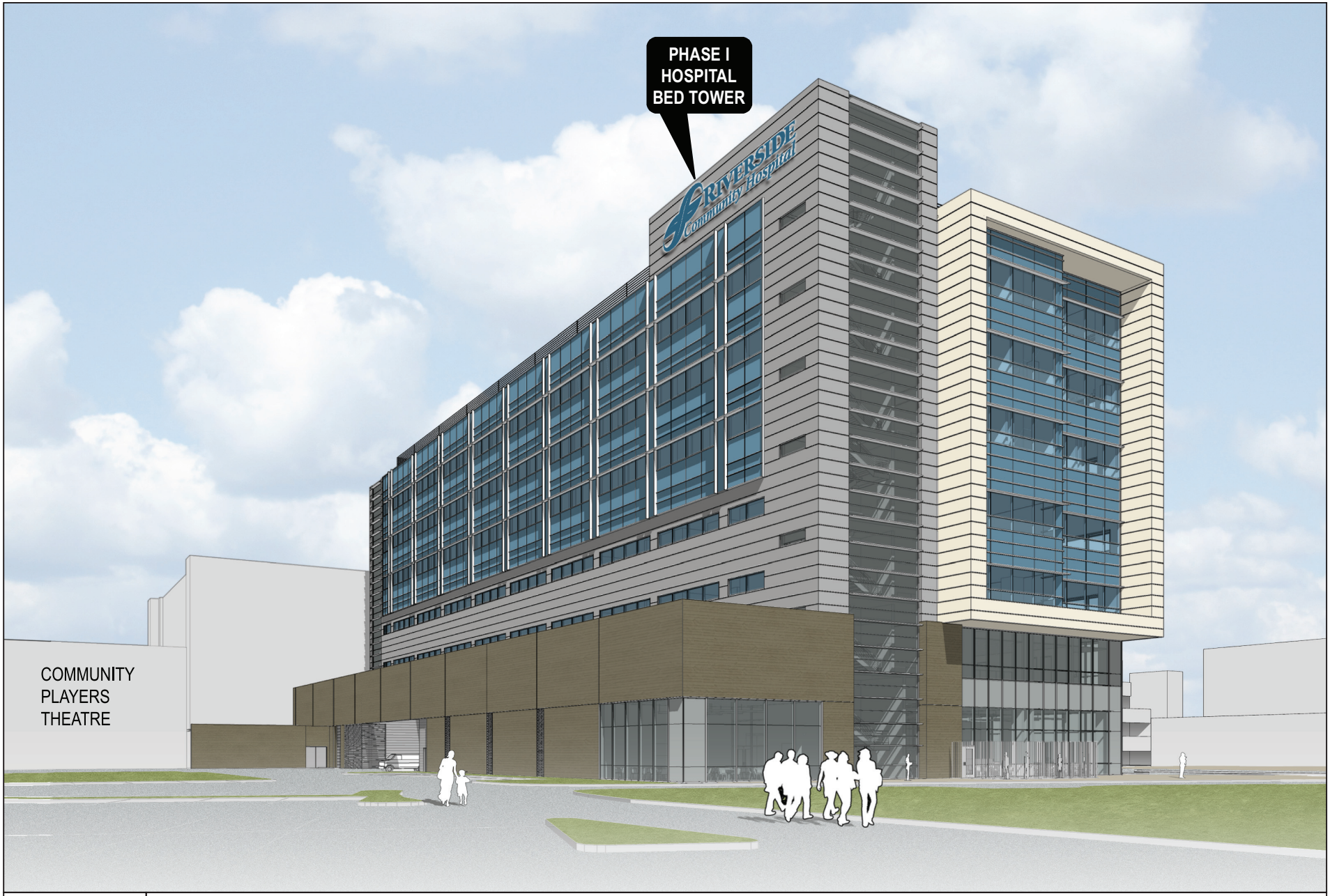
For Phases IIa and IIb, no architectural renderings have been completed since these phases are so far in the future and detailed information about the buildings is not yet available. However, the massing and scale of the buildings proposed under these later phases is known and can be seen in Figures 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. Currently, there are no views of Mount Rubidoux or the San Bernardino Mountains from the main entrance and main gathering places of Calvary Presbyterian Church; the main gather places generally face north and have views of the existing hospital buildings. Mount Rubidoux is located to the west of the main gathering places of the church and the San Bernardino Mountains are located north of the existing hospital buildings which block those views from the church. Therefore, visitors and parishioners do not currently have prominent views due to the existing hospital buildings and with Phase II buildings, there would be no views obstructed by the project and **impacts are considered less than significant**. ~~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

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SOURCE: PERKINS AND WILL 2013

FIGURE 4.1-3

View from corner of Magnolia Avenue and 14th Street

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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. Additionally, MM AES-1 will be implemented to address the indirect design compatibility impacts of Phase IIb and IIc on Calvary Presbyterian Church. Therefore, impacts as a result of Phases IIb and IIc are considered **less than significant with mitigation incorporated.**

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.

Caltrans (California Department of Transportation). 2011. "Officially Designated State Scenic Highways and Historic Parkways, California Scenic Highway Mapping System." Accessed November 2013. http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm.

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City of Riverside. 2002. *Downtown Specific Plan – Health Care District: Vision, Goals, and Policies.* Adopted November 2002. Accessed November 2013. http://www.riversideca.gov/planningpdf/SpecificPlans/downtown/Chapter03.pdf.

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City of Riverside. 2007b. Riverside Municipal Code: Title 19 – Zoning Code. http://www.riversideca.gov/municode/pdf/19/title-19-full-copy.pdf.

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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/ ~~non~~attainment. 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 review of future permits for Phase IIc of the Riverside Community Hospital Expansion Project or 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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4.4 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).

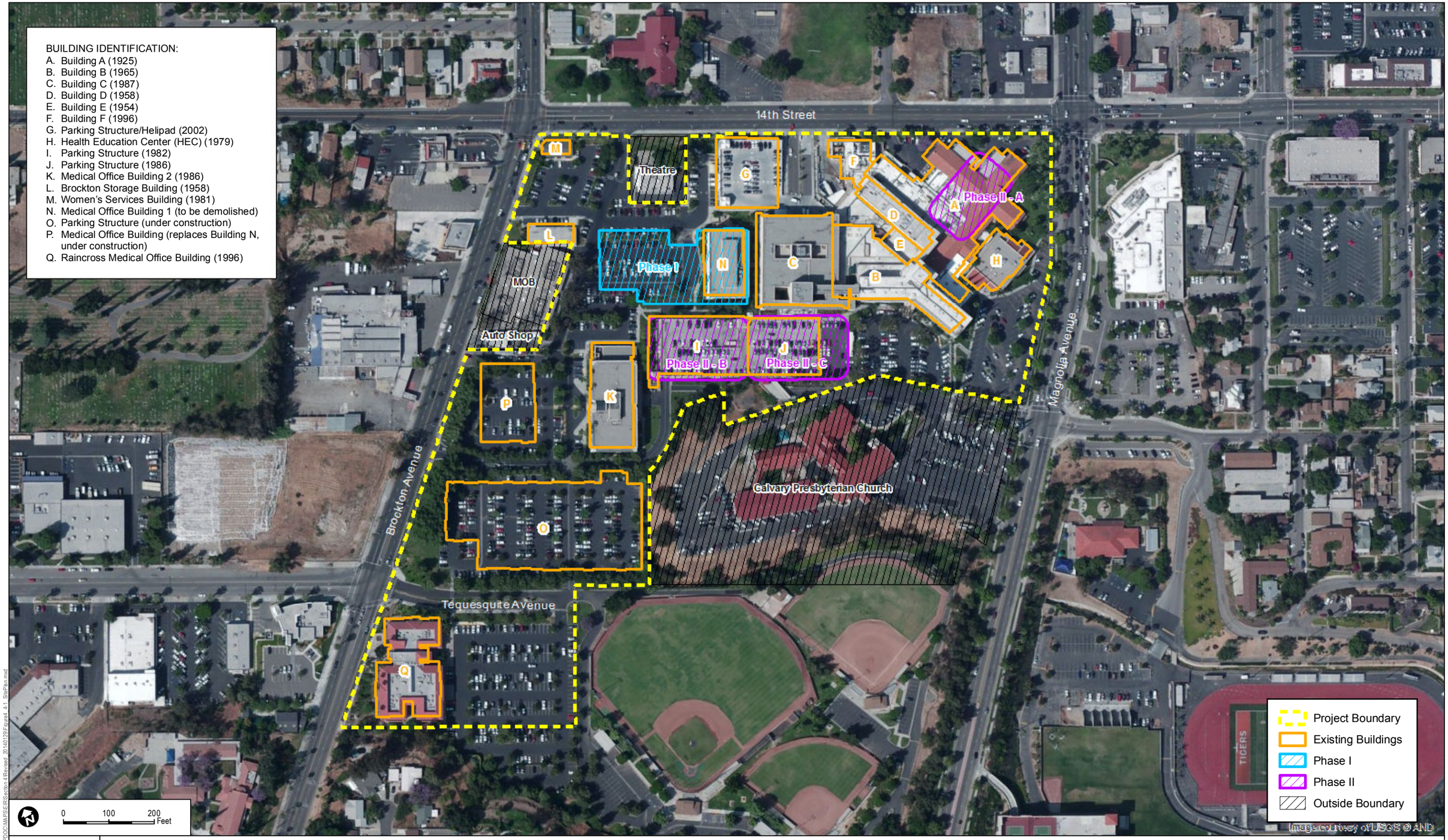
On April 2, 1941, a new laundry facility was added to Building A.

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\MAPDOC\MAPS\EIR\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**). Additionally, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor (**MM CUL-5**). 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-43** 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~~4**). 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**). Additionally, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor (**MM CUL-5**). 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-43** 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-43**).

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, <u>and any unknown Native American artifacts,</u> 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.

<u>Pursuant to Public Resources Code Section 5097.99, in the event Native American artifacts are discovered, work within the area of the discovery shall stop</u>

and the City shall consult with representatives of the Native American community to ensure the respectful treatment of Native American artifacts.

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.

MM CUL-5 In addition to MM CUL-3 requiring all ground-disturbing activities during all construction phases of the project to be monitored by a qualified archaeologist, RCH, in coordination with the City, will notify local tribes 30 days prior to ground disturbing activities allowing the local tribes to monitor grading and ground-disturbing activities along with RCH's qualified archaeological monitor.

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.

City of Riverside. 2007b. Riverside Municipal Code: Title 19 – Zoning Code. http://www.riversideca.gov/municode/pdf/19/title-19-full-copy.pdf.

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.

NPS (National Park Service). 1991. *Guidelines for Completing National Register of Historic Places Forms*. National Register Bulletin 16, Part A. U.S. Department of the Interior, NPS.

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.
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.

Table 4.5-3
Project Design Features – GHGs

Building Component	Design Feature
	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.	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

Table 4.5-10
Consistency with Green Action Plan Goals

Green Action Plan Goal/Action	Project Feature
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.	utilities and services.
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~~2** 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.

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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

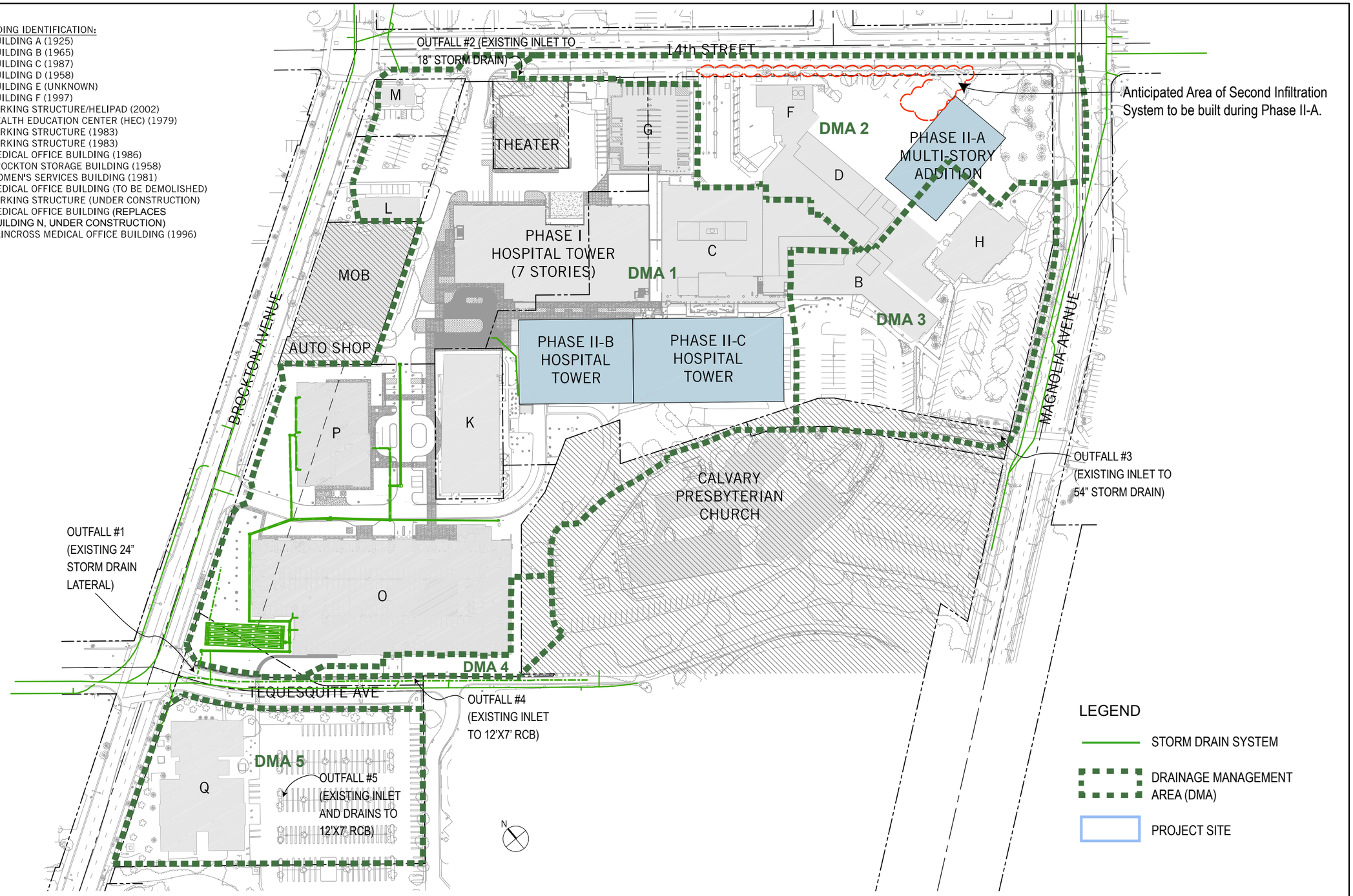
Water resources throughout Riverside County are sustained by significant groundwater basins, which are used as reservoirs to store water during wet years and to supply stored water in dry years. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation 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~~ In 2010, 100 percent of RPU~~'s water~~ potable supply ~~consists~~consisted 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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4.11 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, dated June 10, 2013, from the water purveyor, RPU, ~~Todd Jorgenson, that~~ indicates that ~~RPU anticipates~~ sufficient surplus water supplies are available to meet the incremental increase in water demand for all phases of the project (Jorgenson 2013) (see Appendix F for more information).~~,the~~ 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
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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