AN ADDENDUM TO THE PREVIOUSLY CERTIFIED ENVIRONMENTAL IMPACT REPORT

FOR THE

CHILDREN'S HOSPITAL OF ORANGE COUNTY MASTER PLAN, ZONE CHANGE, DEVELOPMENT AGREEMENT, CONDITIONAL USE PERMIT, TENTATIVE PARCEL MAP, MAJOR SITE PLAN REVIEW, DESIGN REVIEW, AND ENVIRONMENTAL REVIEW

CITY OF ORANGE, CALIFORNIA

STATE CLEARINGHOUSE NO. 2008081118

FOR PURPOSES OF CONSIDERATION OF

CHOC MASTER PLAN UPDATES SOUTH OF LA VETA AVENUE

CEQA Guidelines, Section 15164 (a) states that an Addendum to a previously certified EIR may be prepared if some changes or additions are necessary but none of the conditions described in Section 15162 or 15163 calling for the preparation of subsequent or supplemental EIR have occurred.

CEQA Guidelines Section 15164 applies to the CHOC Master Plan Updates South of La Veta Avenue. CEQA Guidelines Section 15164 allows an addendum to a previously certified environmental document to be prepared if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred. The City of Orange certified a Final Environmental Impact Report (EIR) for the CHOC Master Plan. The Final EIR for the CHOC Master is hereby amended by this Addendum and the Environmental Checklist for Subsequent Projects for the CHOC Master Plan Update South of La Veta Avenue as described below.

Location: The proposed Project encompasses approximately 9 acres of the portion of the existing CHOC campus located on the southeast corner of La Veta Avenue and Main Street.

Background: The Final EIR for CHOC Master Plan was certified by the City of Orange on February 19, 2009. The certified EIR evaluated potentially significant effects for the following environmental areas of potential concern:

- Aesthetics
- Air Quality
- Biological Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Transportation and Traffic
- Utilities and Service Systems

The Project proposes changes to CHOC Master Plan for the portion of the CHOC campus south of La Veta Avenue.

Changes in the project and impacts:

The Project consists of the following proposed updates to CHOC Master Plan for the area south of La Veta Avenue:

- Remove consideration of the previously proposed 25-story, 175,000-square-foot Medical Office Building and propose construction of an up to 11-story, 370,000-square-foot Medical Office Building at the same location.

- Construct three levels on the existing nine-level Associate Parking Garage (vertical expansion) to add approximately up to 500 additional parking spaces and create a 12-level parking structure.

- A horizontal expansion of the nine-level Associate Parking Garage that would add up to 630 parking spaces was evaluated in the 2009 EIR and would occur under an existing development agreement. It is not included as part of this EIR Addendum.

- The existing CHOC 505 Commerce Tower and its associated parking garage would remain as is.

The proposed Project would not result in any new significant environmental impacts or substantially worsen or increase the severity of impacts already identified in CHOC Master Plan EIR, based on the analysis provided in the attached Environmental Checklist for Subsequent Projects.

No substantial changes with respect to the circumstances under which the proposed Project is undertaken require major revisions of the Final EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Likewise, no new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the Final EIR was certified shows significant effects or more severe effects than those analyzed in the Final EIR.

Finding: The previous Final EIR for the 2009 Master Plan, as amended by this Addendum, and the Environmental Checklist for Subsequent Projects may be used to fulfill the environmental review requirements of the CHOC Master Plan Update for South of La Veta Avenue. Because the changes to the Project meet the conditions for the application of CEQA Guidelines Section 15164, preparation of a subsequent or supplemental EIR is not required.

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CHOC ENTERPRISE MASTER PLAN UPDATES SOUTH OF LA VETA AVENUE ENVIRONMENTAL CHECKLIST FOR SUBSEQUENT PROJECTS

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Date: June 2022

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ENVIRONMENTAL CHECKLIST FOR SUBSEQUENT PROJECTS FORM

FOR USE WHEN THE CITY IS REVIEWING SUBSEQUENT DISCRETIONARY ACTIONS PURSUANT TO A PREVIOUSLY ADOPTED OR CERTIFIED ENVIRONMENTAL DOCUMENT

Project Title: CHOC Enterprise Master Plan Updates South of La Veta Avenue	**Reference Application Numbers:**
Lead Agency: (name and address) City of Orange 300 East Chapman Avenue Orange, CA 92866	**Contact Person and Telephone Number:** Robert Garcia Senior Planner rgarcia@cityoforange.org (714) 744-7231
Project Proponent and Address: Children's Hospital of Orange County (CHOC) 1201 West La Veta Avenue Orange, CA 92868	**Contact Person and Telephone Number:** Waldo Romero Waldo.Romero@choc.org
Project Location: 505 South Main Street and 525 South Main Street Orange, CA 92868	
Existing General Plan Designation: Urban Office Professional (UOP)	**Existing Zoning Classification:** General Business (C-2)

INTRODUCTION (Summarize project and describe compliance with CEQA and purpose of Initial Study)

The CHOC Enterprise Master Plan Updates South of La Veta Avenue (proposed Project) consist of the demolition and construction of several buildings and structures on the existing CHOC campus including:

- vertical expansion of an existing parking structure
- removal of a surface parking lot
- demolition of a building and construction of a new building

A detailed discussion is provided in the Project Description section.

An action that has the potential for causing a physical change in the environment is considered a "project" under Section 21065 of the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and Section 15378 of the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.). A "project" is required to go through an environmental review process in accordance with CEQA and the State CEQA Guidelines.

Pursuant to Section 15367 of the State CEQA Guidelines, the Lead Agency is the public agency that has the principal responsibility of carrying out or approving a project that may have a significant effect on the environment. The City of Orange (City) is the Lead Agency since the proposed Project would be located in the City and would require approvals from the City. As the Lead Agency, the City has the responsibility for completing the environmental review process for the Project in accordance with CEQA and certification or adoption of the environmental documentation prior to the approval of the Project.

In accordance with Section 15162 of the State CEQA Guidelines, and the City's Local CEQA Guidelines, a Subsequent Initial Study (IS) has been prepared for the proposed Project and its associated discretionary approvals. CEQA Guidelines Section 15162, Subsequent Environmental Impact Reports (EIRs) and Negative Declarations (NDs), state the following:

(a) When an EIR has been certified or a Negative Declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or ND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the ND was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

Based on this Subsequent IS, the City has determined that an addendum is the appropriate CEQA document for the proposed Project, because it would not result in any new significant environmental impacts or substantially worsen or increase the severity of impacts already identified in the CHOC Master Plan Final EIR (certified February 19, 2009). No substantial changes with respect to the circumstances under which the proposed Project is undertaken require major revisions of the Final EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Likewise, no new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the

Final EIR was certified shows significant effects or more severe effects than those analyzed in the Final EIR.

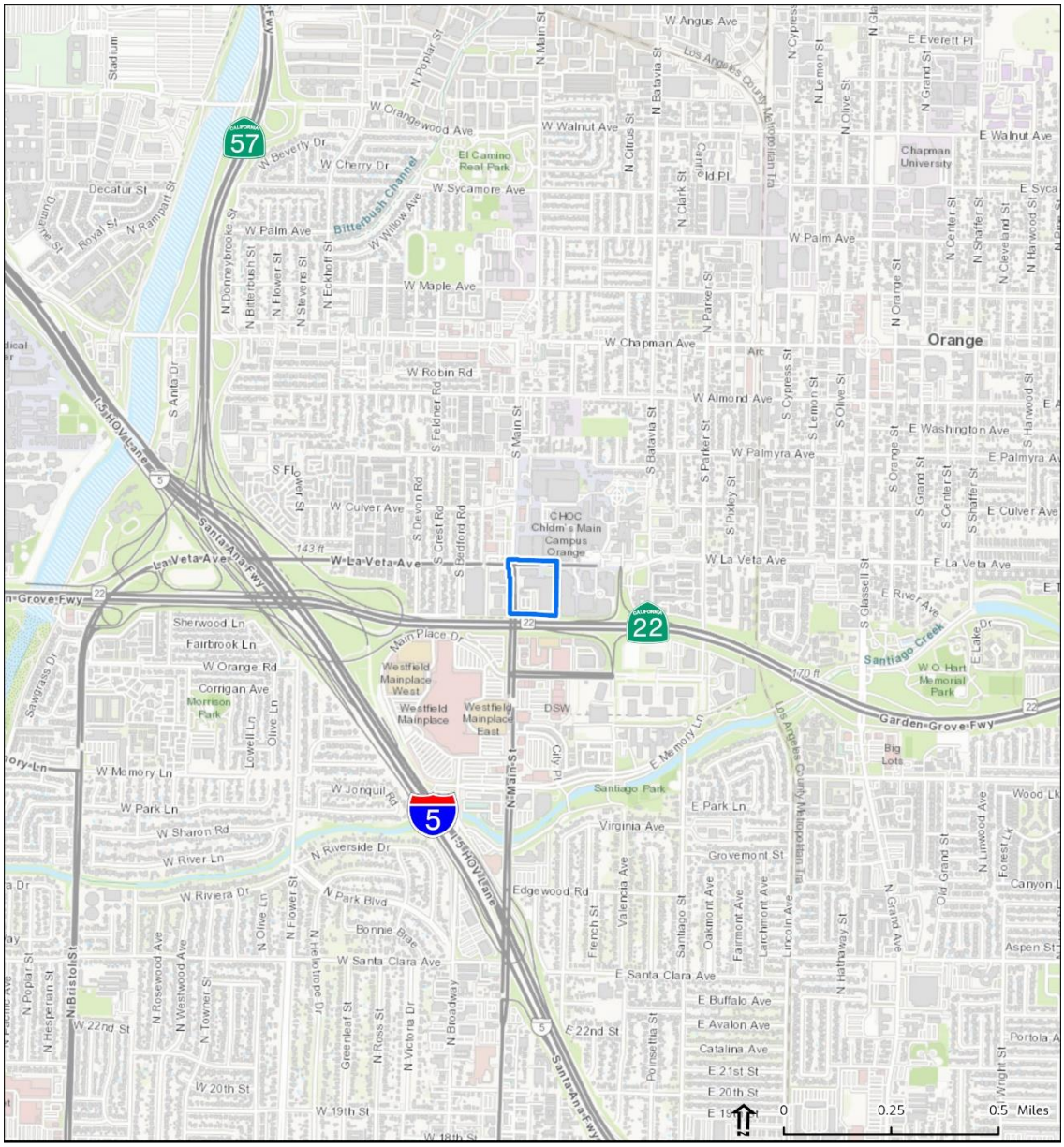
EXISTING SETTING

Regional Setting:

The Project site for the proposed Children's Hospital of Orange County (CHOC) Enterprise Master Plan Updates South of La Veta Avenue is located within the City of Orange (City) in north-central Orange County. It is located north of the Garden Grove Freeway (State Route 22 or SR 22) and northeast of the Santa Ana Freeway (Interstate 5 or I-5) (Figure 1). Regional access to the Project site is provided via SR 22, I-5, and the Orange Freeway (SR 57).

Existing Site Conditions: (Describe the project site)

The approximately 9-acre Project site is bounded on the west by Main Street, on the east by the St. Joseph Hospital Orange campus, on the south by SR 22 and on the north by La Veta Avenue (Figure 2). The Project site includes the CHOC Commerce 505 Tower, CHOC Commerce Parking Garage, 9-level associate parking garage, PADRE Foundation Building, a construction trailer, and a surface parking lot.

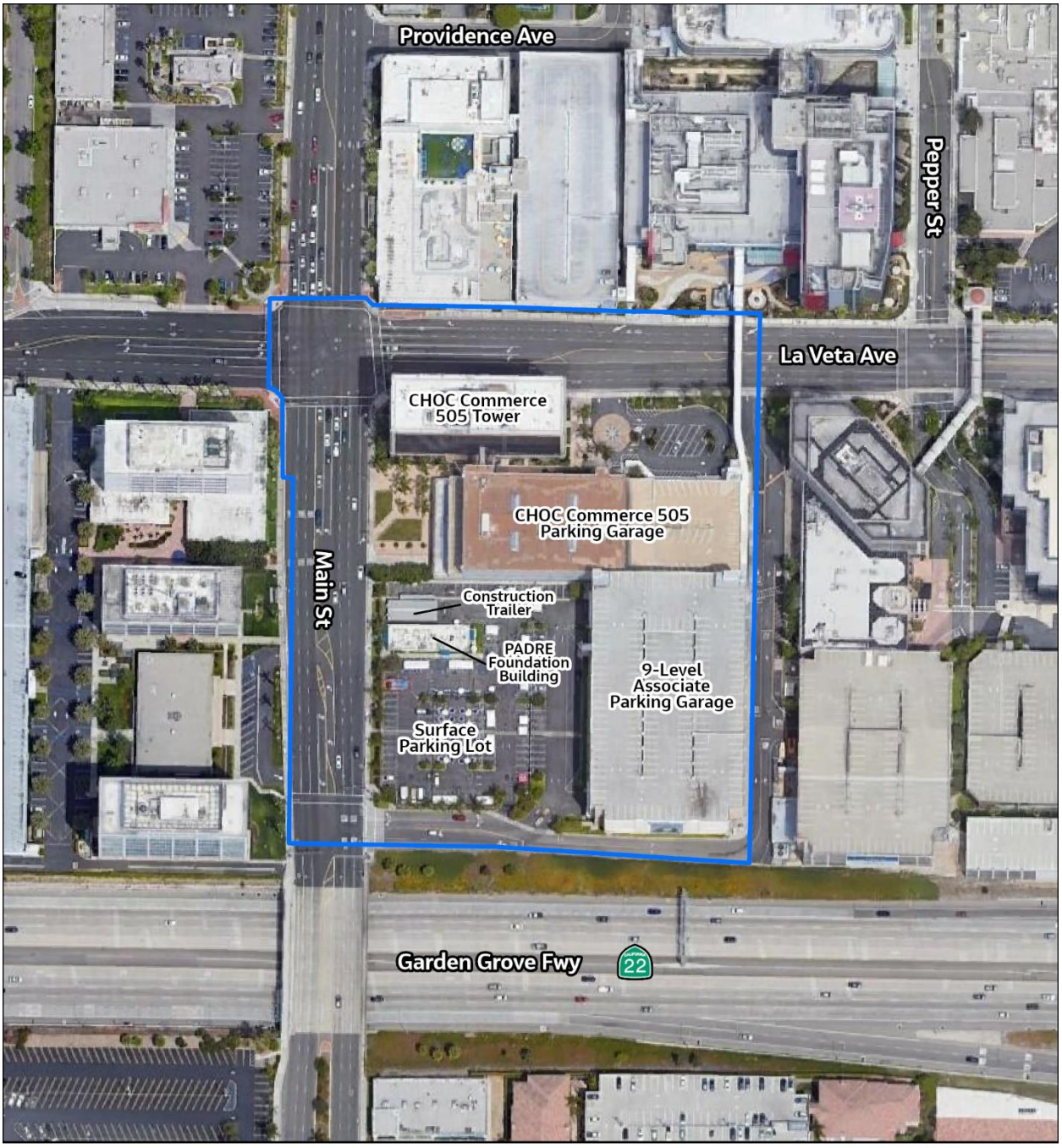


Children's Hospital of Orange County

Regional Map

Data Source:
ESRI Basemap 2021

Figure 1



Children's Hospital of Orange County

Existing Conditions

Data Sources:
Orange County 2021
GoogleEarth 2021

Figure 2

Surrounding Land Uses: (Describe the land uses and characteristics of the surrounding area)

The proposed Project site is within an area that supports the largest concentration of medical facilities in Orange County. The center of this concentration is the City's Health Corridor Business District located at the intersection of Main Street and La Veta Avenue where there are a "number of medical offices, care facilities, and boutique clinics that provide an array of specialized medical services." (City of Orange 2020i) Additional information on the surrounding land uses is provided in the Land Use and Planning section of this Initial Study Checklist.

PREVIOUS ENVIRONMENTAL DOCUMENT (Describe the previously adopted ND or MND or the previously certified EIR (include the date the document was adopted or certified, the date the project was approved by the City, the date the NOD was filed with the County, and a summary of potentially significant effects identified in the CEQA document)

An IS was completed for the CHOC Master Plan Project, which includes the current Project area, on August 18, 2008 (Environmental Review No. 1805-08). Based on environmental analysis in the IS, 12 resources were determined to have the potential for significant impacts. These included Aesthetics, Air Quality, Biological Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use/Planning, Noise, Population and Housing, Public Services, Transportation/Traffic, and Utilities/Service Systems. Four additional resources were determined to have either no impacts or less than significant impacts and were not further analyzed in the draft or final EIR. These included Mineral Resources, Agriculture Resources, Cultural Resources, and Recreation.

Given the potential for significant impacts on 12 resources, the City of Orange determined that the then-proposed project *may have a significant effect* on the environment, and an EIR would be required.

The Final EIR was prepared in accordance with CEQA (California Public Resources Code Section 21000 et seq.), the CEQA Guidelines (California Code of Regulations, Title 14 Section 15000 et seq.), and the City of Orange Local CEQA Guidelines, dated April 11, 2006. The Final EIR for the then-proposed project consisted of:

- A Draft EIR (State Clearinghouse No. 2008081118), December 10, 2008
- Draft EIR Technical Appendices Volume 1 and Volume 2, December 10, 2008
- Final EIR, Certified February 19, 2009

The Final EIR, *Children's Hospital of Orange County Master Plan. (Zone Change, Development Agreement, Conditional Use Permit, Tentative Parcel Map, Major Site Plan Review, Design Review, and Environmental Review*) was published February 19, 2009, and certified by the City of Orange, City Council by Resolution 10358 on March 24, 2009. The Notice of Determination (NOD) was filed with the Orange County Clerk on April 2, 2009.

Findings of Fact, a Statement of Overriding Conditions, and a Mitigation Monitoring and Reporting Program (MMRP) were adopted by the City of Orange on March 24, 2009. Potentially significant effects identified in the Draft EIR and carried forward to the Final EIR and MMRP included the following resources and associated required mitigation measures:

Aesthetics: Potential impacts on aesthetics were related to consistency with City of Orange Municipal Code Ordinance 17.12.030 designed to ensure that lighting would be directed, controlled, screened,

and/or shaded such that light and glare would not result in direct illumination on the surrounding properties or roadways.

One Aesthetics Mitigation Measured Required: MM 4.1-1.

MM 4.1-1. Prior to the issuance of any building permit, the Project Applicant shall submit a photometric analysis for review and approval by the City of Orange Community Development Department and the City of Orange Police Department. The photometric analysis shall provide evidence that the lighting design is consistent with the City of Orange Municipal Code Ordinance 17.12.030 and has been designed to provide for lighting that is directed, controlled, screened, and/or shaded such that light and glare would not result in direct illumination on the surrounding properties or roadways.

Air Quality: Potential air quality impacts were associated with conflicts with the South Coast Air Quality Management District (SCAQMD), Air Quality Management Plan (AQMP). Short-term significant impacts to local air quality due to PM_{10} emissions during demolition, excavation, and grading and from equipment exhaust were identified. Long-term significant impacts to regional air quality were also identified due to increased nitrogen oxides (NO_X) and carbon monoxide (CO) primarily from motor vehicles and the off-site generation of electricity.

Five Air Quality Mitigation Measures Required: MM 4.2-1 through MM 4.2-5; however, the impacts would remain significant and unavoidable.

MM 4.2-1 During the excavation and grading phase of the construction activities, the Applicant shall require that the grading contractor make one of the following available to the occupants of the structures that contain sensitive receptors within the impacted area: (1) a bi-monthly cleaning of their air filter on their existing HVAC unit(s) by a certified technician; or (2) an industrial strength portable air cleaner for their use. The impacted area shall consist of the property located within the modeled area that would exceed 10.4 μ per m^3 of PM_{10} emissions during the excavation and grading phase of the construction activities for the proposed project.

MM 4.2-2. During the excavation and grading phase of construction activities for the proposed project, the Applicant shall require that the grading contractor water all exposed surfaces three times per day.

MM 4.2-3. During the grading and excavation phase of the construction activities for the proposed project, the Applicant shall require that the grading contractor water the soil to be moved prior to it being loaded onto the haul trucks.

MM 4.2-4. During the operation of CHOC Hospital after completion of Phase 1 of the proposed project, the Applicant shall restrict truck and ambulance idling at the loading docks and emergency room bays. This shall be accomplished through signage and training of employees.

MM 4.2-5. During the operation of CHOC Hospital after completion of Phase 1 of the proposed project, the Applicant shall provide on-site services to minimize vehicle trips, including, but not limited to, the following: meal or cafeteria service, automated teller machines, and areas for passive recreation.

Hazards and Hazardous Materials: While previous land uses could have created circumstances of environmental concern (i.e., hazardous conditions), it was determined through a Phase 1 Environmental Site Assessment that site hazards would not pose a significant risk to occupants on the Project site.

Construction activities would occur according to the Occupational Safety and Health Administration (OSHA). However, due to the ages of some of the buildings, potential hazardous materials impacts were identified to be associated with demolition, removal, and disposal of building materials that contain hazardous substances such as asbestos or lead-based paint.

The Project site is not on any of the lists of sites enumerated under Section 65962.5 of the Government Code including, but not limited to, lists of hazardous waste facilities, land designated as hazardous waste property, hazardous waste disposal sites and others, and the information in the Hazardous Waste and Substances Statement required under subdivision (f) of that Section.

Two Mitigation Measures Required: MM 4.5-1 and MM 4.5-2

MM 4.5-1. Prior to any demolition or remodeling of the existing buildings, an asbestos survey report shall be prepared to identify asbestos-containing materials and the appropriate process for its removal by a licensed asbestos abatement contractor under the guidance of the South Coast Air Quality Management District (SCAQMD) and California Division of Occupational Safety and Health (Cal/OSHA).

MM 4.5-2. Prior to any demolition or remodeling of the existing buildings, testing of paint samples shall be conducted to identify paint that contains lead in concentrations that exceed the Cal/OSHA Lead Concentration Standard.

Noise: Assessment of potential noise impacts concluded that noise levels at nearby sensitive receptors as a result of the on-site construction-related activities, and in combination with the off-site construction-related traffic, would exceed the City of Orange's noise standards and would be considered a significant impact that would remain significant and unavoidable.

One Mitigation Measure Required: MM 4.8-1

MM 4.8-1. During construction activities for the proposed project, the Applicant shall require the construction contractor to adhere to the following noise attenuation requirements:

- Construction activities shall be limited to the hours of 7 A.M. to 8 P.M. Sunday or a Federal holiday;
- All construction equipment shall use noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer;
- Construction staging and heavy equipment maintenance activities shall be performed as far away as practical from the nearby sensitive receptors, unless safety or technical factors take precedence;
- The Applicant shall require the demolition contractor to place the crushing/processing equipment as far away as practical from any nearby sensitive receptors; and
- Stationary combustion equipment such as pumps or generators shall operate as far away as practical from nearby sensitive receptors, unless safety or technical factors take precedence shall be shielded with a noise protection barrier.

Transportation and Traffic: Potential transportation and traffic impacts were primarily focused on improvements required to extend the southbound left-turn lane at Main Street/CHOC Court to a minimum of 300 feet in order to take into account that the southbound left-turn lane is currently designed as a back-to-back lane with the northbound left-turn lane at 550 South Main Street.

Two Mitigation Measures Required: MM 4.11-1 and MM 4.11-2

MM 4.11-1. Prior to the issuance of the certificate of occupancy for the "potential medical office building and parking structure", the Project Applicant shall provide for the improvements required to extend the southbound left-turn lane to a minimum of 300 feet in length. This improvement will be required to take into account that the southbound left-turn lane is currently designed as a back-to-back lane with the northbound left-turn lane at 550 South Main Street. This improvement shall be completed prior to the issuance of the certificate of occupancy for the medical office building.

MM 4.11-2. Prior to issuance of the first demolition permit, the Applicant shall submit to the City of Orange Traffic Engineer, City of Orange Police Chief, and City of Orange Fire Chief, or their designees, a Construction Phase Emergency Access Plan for their review and approval. The Construction Phase Emergency Access Plan shall include the location of all existing access points from the adjacent public streets and the on-site emergency access areas provided within 150 feet of all construction activities.

Utilities and Service Systems: Potential utility impacts considered the adequacy of the water system to meet the proposed project's water demands and fire flow requirements without reducing existing service levels or impacting any existing water supply and conveyance facilities.

One Mitigation Measure Required: MM 4.12-1

MM 4.12-1. Prior to December 31, 2009, the Applicant or developer shall submit to the City of Orange Water Division, a water improvement plan for all proposed water improvements including fire hydrants, fire services, domestic water service, landscape irrigation, and any other proposed improvements that may impact the City's water system and water service to the Project site. The water improvement plan shall contain a construction schedule demonstrating that all public water construction would be completed prior to the issuance of a certificate of occupancy by the Office of Statewide Health Planning and Development (OSHPD) for Phase 1 construction. Approval of the water improvement plan by the City is contingent on the Applicant or developer demonstrating the adequacy of the water system to meet the proposed project's water demands and fire flow requirements without reducing existing service levels or impacting any existing water supply and conveyance facilities. If the preparation and/or review of the water improvement plans concludes that additional off-site improvements will be required, such improvements shall be completed prior to issuance of the certificate of occupancy by OSHPD for Phase 1 construction.

PROJECT DESCRIPTION (Describe the components of the project including proposed physical improvements, construction, operations, phasing, and City approvals required to accommodate the project.)

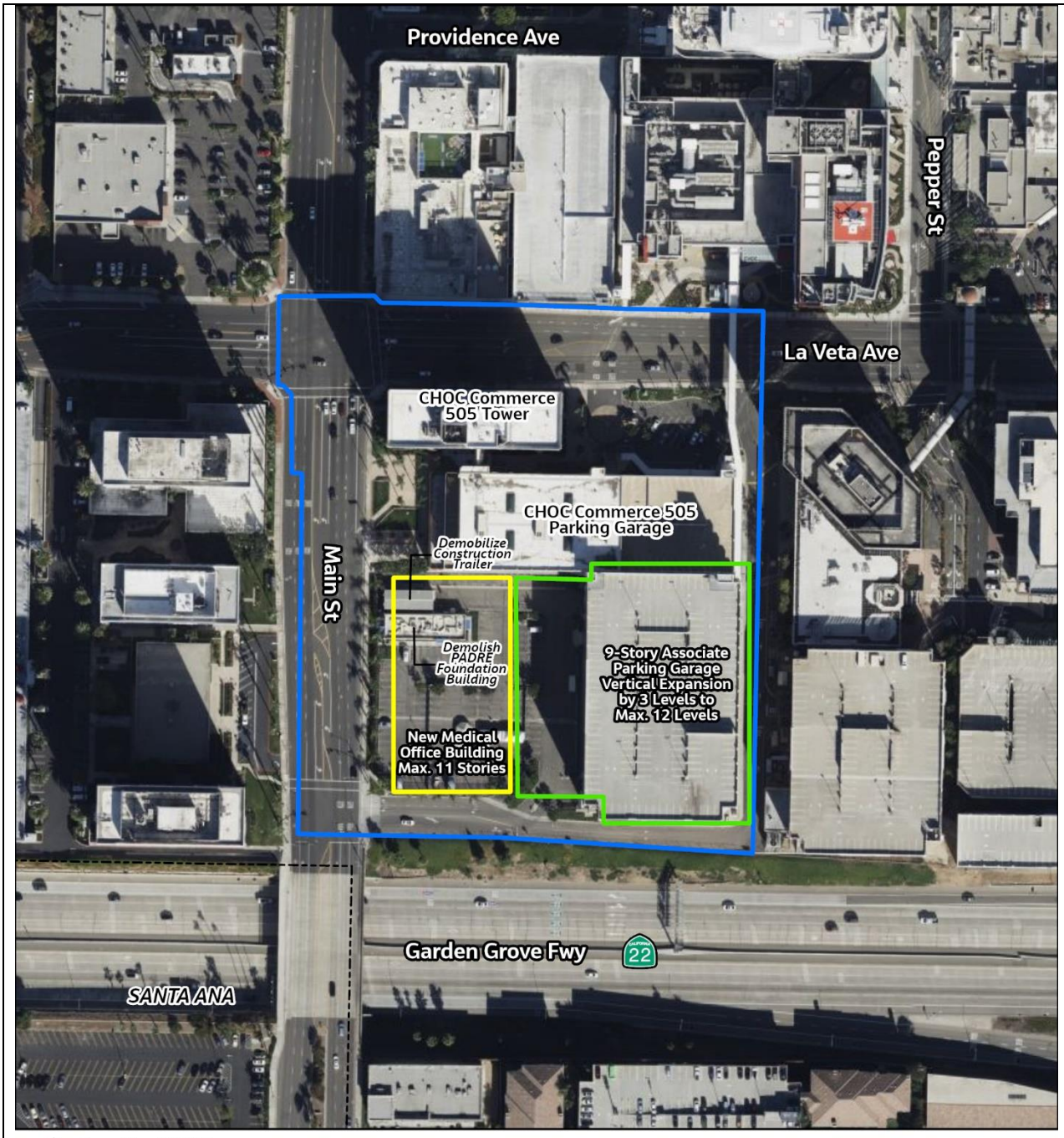
Background

The City prepared an EIR for the CHOC Master Plan in 2009. The Master Plan included activities both north of and south of La Veta Avenue. Components of the Master Plan for the area south of La Veta Avenue were conceptual and were evaluated at a program level. Components in the area north of La Veta Avenue were evaluated at the project level. In 2009 the City and CHOC entered into a Development Agreement addressing implementation of the then current Master Plan as described in the 2009 EIR.

The proposed Project considered in this Environmental Checklist consists of construction and demolition of buildings and structures south of La Veta Avenue within the existing boundary of the CHOC campus as described in the CHOC Enterprise Master Plan Updates, currently under development. This Subsequent IS addresses all of the current CHOC Master Plan Updates proposed for south of La Veta Avenue that were not previously approved in the certified and adopted 2009 EIR.

Proposed Project Components

The proposed Project includes demolition of one small building and a parking lot, construction of a new building, and vertical expansion of an existing parking garage (Figure 3). The primary proposed Project components are summarized in Table 1 and described below. Table 1 also includes a brief description of the existing conditions and what was previously proposed and analyzed in the 2009 EIR for the portion of the CHOC Master Plan south of La Veta Avenue.



Children's Hospital of Orange County

Proposed Project Activities

Data Sources:
Orange County 2021
BING Imagery 2021

Figure 3

Table 1. Summary of Existing Conditions South of La Veta Avenue

Existing Conditions (as of 2021)	Master Plan Phase I as evaluated in the 2009 Program-level EIR and in the executed 2009 Development Agreement	Proposed Updates South of La Veta Avenue
Parking		
• Retain Surface Parking Lot 110 spaces • Retain Associate Parking Garage 1,649 spaces • Retain Commerce Parking Garage 732 spaces **Total: 2,491 existing spaces**	• Demolish Surface Parking Lot • Retain Associate Parking Garage 1,649 spaces • Construct Associate Parking Garage horizontal expansion 875 spaces • Retain Commerce Parking Garage 732 spaces **Total: 3,256 spaces entitled**	• Expand Associate Parking Garage (Vertical) from 1,649 to up to 2,149 spaces (add up to 500 spaces) 2,149 spaces • Retain entitled Associate Parking Garage horizontal expansion, but reduce to 630-space capacity (total Associate Garage with both horizontal and vertical expansions is 2,779 spaces) • Retain Commerce Parking Garage 732 spaces **Total: 3,511 spaces proposed**
Net Change from Existing/Entitled to Proposed, South of La Veta Avenue:		**+1,090 Spaces/+325 Spaces**
Building Floor Area		
• Retain PADRE Foundation Building 3,178 square feet • Retain CHOC 505 Commerce Tower 214,000 square feet **Total: 217,178 square feet existing**	• Demolish PADRE Foundation Building • Retain CHOC 505 Commerce Tower 214,000 square feet • Construct new Medical Office Building 175,000 square feet **Total: 389,000 square feet entitled**	• Retain CHOC 505 Commerce Tower 214,000 square feet • Construct new Medical Office Building 370,000 square feet **Total: 584,000 square feet proposed**
Net Change from Existing/Entitled to Proposed, South of La Veta Avenue:		**366,682 square feet/195,000 square feet**
South of La Veta Avenue Maximum Building Height		
• Retain CHOC 505 Commerce Tower 12 stories • Retain Associate Parking Garage 9 levels	• Retain CHOC 505 Commerce Tower 12 stories • Construct Associate Parking Garage horizontal expansion	• Retain CHOC 505 Commerce Tower 12 stories • Expand Associate Parking Garage (Vertical) from 9

• Retain Commerce Parking Garage 7 levels **Max Height: 12 stories**	(no change in height) 9 levels • Retain Commerce Parking Garage 7 levels • Construct new Medical Office Building up to 25 stories **Max Height: 25 stories**	levels to 12 levels 12 levels • Retain Commerce Parking Garage 7 levels • Construct new Medical Office Building up to 11 stories **Max Height: 12 stories**
Net Change from Existing/Entitled to Proposed, South of La Veta Avenue:		**0 stories, 0 feet /(-13 stories)**

The existing CHOC 505 Commerce Tower and its associated parking garage would remain unchanged. The proposed Project would connect to existing utilities (water and sewer). No major off-site utility improvements would be required. The proposed Project would not include any beds or a helipad.

Expand Associate Garage. The Associate Garage is a nine-level, 1,649-space parking structure located south of La Veta Avenue and accessed by CHOC Court; it is used for staff parking. The garage will be expanded horizontally as part of a separate approval from this Project to include up to 630 additional parking spaces (up to 2,279 spaces total). As part of this Project, the 2,279-space structure would be expanded vertically by constructing up to three additional levels, resulting in an up to 12-level garage, with a maximum of up to 500 additional parking spaces (total of up to 2,779 spaces).

Construct New Medical Office Building. The new Medical Office Building would be constructed at the southwest corner of the CHOC campus along Main Street. This would be an up to 11-story, 370,000-square-foot structure. The location is currently occupied by an existing surface lot, a construction trailer, and the PADRE Foundation Building. The surface lot and PADRE Foundation Building would be demolished and the adjacent construction trailer removed from the site to allow the construction of the new Medical Office Building.

Construction and Phasing

Construction is proposed to begin in spring 2022 and be completed in winter 2025. The proposed Project is expected to be constructed in the following phases as summarized in Table 2. Typical construction equipment includes, but is not limited to, backhoes, small tractors, trucks, concrete pumps, and mobile cranes.

Table 2. Summary of Construction and Phasing

Phase	Activities	Time Frame
Phase 1	• Associate Parking Garage vertical 3-level expansion • Demobilize construction trailer	Apr 2022 - Jan 2023
Phase 2	• Demolish PADRE Foundation Building • Construct New Medical Office Building	Jun 2022 – Jan 2025

The proposed Project incorporates several Project Design Features (PDFs) that will be contractually binding on designer and/or contractor to implement to avoid or minimize impacts to environmental resources that may be later discovered on the Project site. These PDFs will be included within all zoning drawings and construction drawings and will be in force during Project construction to reduce impacts. Failure to implement these PDFs when applicable would represent a change in scope of the project, subjecting it to further CEQA review.

BIO PDF-1: If construction activities will occur during the migratory bird nesting season for both raptors and non-raptors (January 1 through August 31), a qualified biologist will conduct surveys within 10 days prior to the start of construction. Pre-construction surveys will include the areas within a 250-foot buffer for passerine species and a 500-foot buffer for raptor species, including the American peregrine falcon. During the nesting season, nest surveys will be repeated if lapses in construction on the Project site occur for more than 14 days.

BIO PDF-2: If nests are found within the survey area and work is to continue, a qualified biologist (as determined by CHOC) shall serve as a construction monitor and shall establish an appropriate buffer to be in compliance with the MBTA and California Fish and Game Code 3503 and 3503.5. The biologist shall monitor that active nest and shall increase the buffer if the biological monitor determines that birds are showing signs of distressed behavior due to the project activities. If distressed behavior is observed, the biologist shall have the authority to halt work to either increase the buffer and/or determine appropriate actions. Buffers shall be flagged to mark avoidance areas. Buffers will remain in effect until the young have fledged or the nest has been deemed abandoned by the qualified biologist. Nest detection and nest monitoring surveys will not occur within any area with access restrictions, such as private property and residences.

BIO PDF-3: In addition to adhering to the bird season nesting survey mitigation measures, if a peregrine falcon is found nesting on site, the nesting information shall be filed with the CDFW through either filling out a hard copy California Peregrine Falcon Nesting Testing Survey Form or by using the CNDDB online Field Survey Form.

CUL PDF-1: Archaeological Monitoring during Excavation 4 Feet or Deeper

An Archaeologist meeting the Secretary of Interior's Professional Qualification Standards as defined at 36 Code of Federal Regulations (CFR) Part 61, Appendix A (Professional Archaeologist) shall be retained to monitor all ground-disturbing activities during excavation that occur 4 feet or deeper below ground surface.

CUL PDF-2: Unexpected discovery of Prehistoric or Historic Archaeological Materials

In the event previously unrecorded archaeological remains are unexpectedly encountered during construction within shallow work zones, all activity on site shall cease within 50 feet of the find, and the City shall be immediately notified. If not already on site, an Archaeologist meeting the Secretary of Interior's Professional Qualification Standards for Archaeology as defined at 36 CFR Part 61, Appendix A (Professional Archaeologist) shall be retained by the developer to delineate and protect the materials using flagging tape or pins and to determine if the

archaeological deposits meet the CEQA definition of a historical resource and/or unique archaeological resource (CEQA Guidelines 15064.5(a); Public Resources Code 21083.2[g]). If, in the opinion of the Professional Archaeologist, the find is considered a historical resource and cannot be avoided, the Professional Archaeologist shall pursue either protection in place or recovery, salvage, and treatment of the materials in consultation with the City and in accordance with the protocols and the Data Recovery Plan.

In the event archaeological remains are encountered, all activity within 50 feet of the find shall cease, and the City of Orange shall be immediately notified. If, in the opinion of the Professional Archaeologist, the archaeological deposit meets the CEQA definition of a historical and/or a unique archaeological resource (State CEQA Guidelines 15064.5(a); Public Resources Code 21083.2[g]), and cannot be avoided, the Professional Archaeologist in consultation with the City shall pursue either protection in place or recovery, salvage, and treatment of the materials in accordance with a City-approved Data Recovery Plan developed prior to construction and prepared in accordance with applicable provisions of Public Resource Code Section 21083.2 and State CEQA Guidelines 15064.5 and 15126.4. If archaeological resources cannot be avoided, preserved in place, or left in an undisturbed state, recovery, salvage, and treatment shall be required. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation by the Professional Archaeologist, and the Professional Archaeologist shall possess a curation agreement with an established accredited repository prior to initiating recovery. Any recovered resources shall be identified, appropriately labeled and cataloged prior to curation. Excavation as a treatment option shall be restricted only to those parts of the archaeological resource that would be damaged or destroyed by the Project.

Following the recovery of any unexpected archaeological remains, a brief draft report containing the appropriate California Department of Parks and Recreation (DPR) site forms, a summary of resource significance, and the recovery and treatment documentation shall be submitted immediately to the City of Orange Community Development Department. All information regarding site locations, Native American human remains, and associated funerary objects shall be in a separate confidential appendix and not made available for public disclosure. A final written report shall be submitted to the City and the SCCIC prior to Building Permit Final approval.

CUL PDF-3: Monitoring for Human Remains during Excavation 4 Feet or Deeper

An Archaeologist meeting the Secretary of Interior's Professional Qualification Standards as defined at 36 CFR Part 61, Appendix A (Professional Archaeologist) shall be retained to monitor all ground-disturbing activities during excavation that occurs 4 feet or deeper below ground surface.

If skeletal remains or funerary items are unexpectedly encountered, all work at the Project site shall halt. Before work can resume, the following actions are required and must be taken immediately upon the discovery of the skeletal remains:

1. Stop work immediately and notify the construction site supervisor, who will notify the City of Orange and contact the County Coroner.

2. The Coroner has two working days after being notified by the responsible person to examine the skeletal remains and determine if they are animal or human and, if human, whether the remains are Native American in origin. If the remains are animal, work can usually resume. If the remains are human but not Native American, the Coroner will determine if the find represents a crime scene; and work will remain halted until the investigation has been completed and the Coroner releases the site. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC 2020).

3. The NAHC will immediately notify the person it believes to be the most likely descendant of the deceased Native American.

4. The most likely descendant has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.

5. If the descendant does not make recommendations within 48 hours, the property owner shall reinter the remains in an area of the property secure from further disturbance; or

6. If the owner does not accept the descendant's recommendations, the owner or the descendant may request mediation by the NAHC.

GEO PDF-1: Paleontological Monitoring during Excavation 4 Feet or Deeper

A qualified Paleontologist (i.e., having at least two years' experience performing paleontological resources monitoring and holding current membership in the Society of Vertebrate Paleontology) shall be retained to monitor all ground-disturbing activities during excavation that occur 4 feet or deeper below ground surface.

HAZ PDF-1: Prior to construction, the project designer would verify that the Project is designed in a manner not to create heliport obstructions, attract birds, and potentially create glare or electronic interference that impact aeronautical operations. Coordination between CHOC, the City of Orange, and the ALUC would determine whether operations are consistent with requirements specified in the Heliport AELUP.

TCP PDF-1: Native American Monitoring

At the discretion of the local tribes that were consulted for this Project, a Native American representative shall be retained to monitor all ground-disturbing activities during excavation that occur 4 feet or deeper below ground surface.

The proposed Project also includes best management practices (BMPs) that have been developed to avoid or minimize impacts to environmental resources that may be present on the proposed Project site. BMPs represent best professional practices and/or use of accepted technology to ensure desired regulatory compliance is achieved and are often included in building permits or other regulatory conditions.

City Approvals

Implementation of the proposed Project would require the following permits and/or approvals. It is assumed the previous Zoning Change from 2009 is applicable and no new change is required.

- Major Site Plan Review
- Design Review
- Conditional Use Permit
- Environmental Review
- Demolition Permit
- Grading Permit
- Building Permits
- Occupancy Permits
- Encroachment Permits
- Site Plan Approval
- Landscape Concept Plan
- National Pollutant Discharge Elimination System (NPDES) Construction General Permit

Other Public Agencies Whose Approval is Required: (Responsible or Trustee Agencies): (Identify other public agencies whose approval is required for project implementation and agencies with jurisdiction over affected natural resources)

Based on the California State Clearinghouse checklist, responsible reviewing agencies include:

- California Department of Transportation (Caltrans) District 12
- Department of Health Services
- Department of Toxic Substances Control
- Integrated Waste Management Board
- California Office of Emergency Services
- Office of State Health Planning & Development (OSHPD)
- Public Utilities Commission
- Regional Water Quality Control Board
- State Water Resources Control Board (Water Quality)/Santa Ana Regional Water Quality Control Board
- South Coast Air Quality Management District (SCAQMD)

As applicable, other reviewing agencies also could include the California Highway Patrol; California Department of Fish and Game, Region 5; California Department of Parks and Recreation; and the California Native American Heritage Commission.

Consultation with California Native American tribes traditionally and culturally affiliated with the project area requested pursuant to Public Resources Code Section 21080.3.1: (Identify agency efforts with respect to consultation and if any tribes have requested consultation)

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code §21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code §5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code §21082.3(c) contains provisions specific to confidentiality.

A search of the Native American Heritage Commission's (NAHC's) Sacred Lands File (SLF) was requested on September 24, 2020, to determine the sensitivity of the Project site for cultural resources. The NAHC responded on September 25, 2020, with a finding that no cultural resources were found within the project area (Appendix A).. Formal government-to-government consultation under AB 52 will not be undertaken by the City.

ENVIRONMENTAL CHECKLIST:

SIGNIFICANT ENVIRONMENTAL EFFECTS OR SUBSTANTIALLY MORE SEVERE SIGNIFICANT ENVIRONMENTAL EFFECTS COMPARED TO THOSE IDENTIFIED IN THE PREVIOUS CEQA DOCUMENT.

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

DETERMINATION. On the basis of this initial evaluation:

1. No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved Negative Declaration or Mitigated Negative Declaration or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted Negative Declaration or Mitigated Negative Declaration or previously certified EIR adequately discusses the potential impacts of the project **without modification**. ☐

2. No substantial changes are proposed in the project and there are no substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous approved Negative Declaration or Mitigated Negative Declaration or certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Also, there is no "new information of substantial importance" as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, the previously adopted Negative Declaration or Mitigated Negative Declaration or previously certified EIR adequately discusses the potential impacts of the project; however, minor changes require the preparation of an **ADDENDUM**. ☒

3. Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previously adopted Negative Declaration or Mitigated Negative Declaration or previously certified EIR due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, all new potentially significant environmental effects or substantial increases in the severity of previously identified significant effects are clearly reduced to below a level of significance through the incorporation of mitigation measures agreed to by the project applicant. Therefore, a **SUBSEQUENT MITIGATED NEGATIVE DECLARATION** is required. ☐

4. Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). However, only minor changes or additions or changes would be necessary to make the previously certified EIR adequate for the project in the changed situation. Therefore, a **SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT** is required. ☐

5. Substantial changes are proposed in the project or there are substantial changes in the circumstances under which the project will be undertaken that will require major revisions to the previous environmental document due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects. Or, there is "new information of substantial importance," as that term is used in CEQA Guidelines Section 15162(a)(3). Therefore, a **SUBSEQUENT ENVIRONMENTAL IMPACT REPORT** is required. ☐

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A finding of “No New Impact/No Impact” means that the potential impact was fully analyzed and/or mitigated in the prior CEQA document and no new or different impacts will result from the proposed activity. A brief explanation is required for all answers except "No New Impact/No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No New Impact/No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No New Impact/No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. A finding of “New Mitigation is Required” means that the project have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document and that new mitigation is required to address the impact.

3. A finding of “New Potentially Significant Impact” means that the project may have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document that cannot be mitigated to below a level of significance or be avoided.

4. A finding of “Reduced Impact” means that a previously infeasible mitigation measure is now available, or a previously infeasible alternative is now available that will reduce a significant impact identified in the previously prepared environmental document.

5. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

6. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analyses Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis. Describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the proposed action.

    c. Infeasible Mitigation Measures. Since the previous EIR was certified or previous Negative Declaration or Mitigated Negative Declaration was adopted, discuss any mitigation measures or alternatives previously found not to be feasible that would in fact be feasible or that are considerably different from those previously analyzed and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives.

d. Changes in Circumstances. Since the previous EIR was certified or previous Negative Declaration or Mitigated Negative Declaration was adopted, discuss any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause a change in conclusion regarding one or more effects discussed in the original document.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   a. the significance criteria or threshold, if any, used to evaluate each question; and

   b. differences between the proposed activity and the previously approved project described in the adopted Negative Declaration or Mitigated Negative Declaration or certified EIR; and

   c. the previously approved mitigation measure identified, if any, to reduce the impact to less than significance.

CHECKLIST OF ENVIRONMENTAL IMPACT ISSUES:

1. AESTHETICS

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

Environmental Setting

The Project is located within the highly urbanized setting of the City of Orange, just north of State Route 22 and in the vicinity of Main Place Mall and other commercial development. Along La Veta Avenue, the Children's Hospital of Orange County (CHOC) campus abuts St. Joseph Hospital Orange. Visual resources on the Project site are limited to ornamental vegetation and trees planted along adjacent sidewalks.

The City of Orange Municipal Code contains several ordinances related to scenic quality, including regulation of removal of existing trees, planting of new trees along roadways, landscaping, allowable building heights, building and parking structure design, and signage. For the purposes of this evaluation, a scenic vista is defined as a public view that is identified in a planning document as valued for its scenic quality. No scenic vistas are designated for protection by federal, State, or local governments within the project viewshed, which is the area from which the Project would be visible.

The City of Orange General Plan outlines various policies intended to safeguard aesthetic resources and encourage visually attractive development in the community. Specific areas of concern are related to protecting historic visual resources in east Orange and preserving the scenic nature of significant ridgelines visible throughout the community (City of Orange 2010a, Natural Resources Element). Neither of these resource types is within the Project viewshed. Other General Plan policies promote well-

designed buildings and streetscapes. The facilities of the existing CHOC campus are visually consistent with the surrounding area and include several multi-level buildings and large parking structures.

State Route 91, from its intersection with State Route 55 to a point approximately 4 miles to the east, is an officially designated state scenic highway. This is the nearest state-designated scenic highway, and the closest portion of it is approximately 5 miles northeast of the Project (Caltrans 2019).

Impact Analysis

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

No scenic vistas are designated for protection by federal, state, or local governments within the Project viewshed.

Construction Impacts

As no scenic vistas designated for protection by federal, state, or local governments are located within the Project viewshed, construction of the Project would have no effect on a scenic vista. No impacts would occur.

Operation Impacts

As no scenic vistas designated for protection by federal, state, or local governments are located within the Project viewshed, project operations would have no effect on a scenic vista. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

The Project is 5 miles southwest of the nearest state scenic highway (i.e., the officially designated scenic portion of State Route 91) and would not be visible from that scenic resource.

Construction Impacts

As the Project site is not visible from any state scenic highway, construction of the Project would not substantially damage scenic resources within a state scenic highway. No impacts would occur.

Operation Impacts

As the Project site is not visible from any state scenic highway, Project operations would not substantially damage scenic resources within a state scenic highway. No impacts would occur.

Proposed Significance Determination

No New Impact/No Impact

Previous Significance Determination:

No Impact (Checklist)

Mitigation Measures:

None identified

Significance Determination After Mitigation:

None made

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

The Project involves the reconfiguration of the CHOC campus and is completely contained in an urbanized area. These changes would not be out of scale with development in the surrounding area.

The Project is not located in the vicinity of east Orange or on a significant ridgeline. The Project would be designed and constructed to conform with Municipal Code and General Plan requirements. The Project would include design reviews with the City prior to permit issuance. Design reviews would confirm the Project complies with City of Orange Municipal Code related to scenic quality and various policies intended to safeguard aesthetic resources and encourage visually attractive development in the community as outlined in the City of Orange General Plan. As a result, the Project would not conflict with applicable zoning and other regulations governing scenic quality.

Construction Impacts

As the Project is completely contained in an urbanized area, the question regarding substantial degradation of existing visual character or quality of public views of the site and its surroundings in a non-urbanized area is not applicable to this analysis.

The Project is completely contained in an urbanized area; the design review with the City would confirm the Project design and construction would be consistent with applicable zoning and other regulations governing scenic quality and aesthetic resources. Construction of the Project would not create conflict with applicable zoning regulations governing scenic quality. No impacts would occur.

Operation Impacts

As the Project is completely contained in an urbanized area, the question regarding substantial degradation of existing visual character or quality of public views of the site and its surroundings in a non-urbanized area is not applicable.

The Project is completely contained in an urbanized area; the design review with the City would confirm the Project design and operation would be consistent with applicable zoning and other regulations governing scenic quality and aesthetic resources. Project operations would not create conflict with applicable zoning regulations governing scenic quality. No impacts would occur.

Proposed Significance Determination

No New Impact/No Impact.

Previous Significance Determination:

None made. The previous California Environmental Quality Act (CEQA) analysis (City of Orange 2009a) addressed a previous iteration of the CEQA Checklist that only dealt with degradation of the existing visual character or quality of public views of the site and its surrounding. The current CEQA checklist does not require that analysis for an urbanized site such as the CHOC campus but instead requires analysis of conflict with applicable zoning and other regulations governing scenic quality for projects in urbanized areas. Impacts due to conflicts with applicable zoning and other regulations governing scenic quality for projects in urbanized areas were not addressed in the 2009 CHOC Master Plan EIR.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

The Project would reconfigure and expand the existing CHOC campus in the City of Orange and, as such, would result in new sources of light and glare both during construction and upon completion of the Project.

Construction Impacts

Impacts of new light and glare sources associated with construction are limited by their nature because they are temporary. Construction of the Project would add temporary substantial light or glare only if nighttime work were to occur. All temporary construction lighting would comply with related City of Orange Municipal Code requirements regarding lighting and would not create substantial impacts to day or nighttime views in the area. No impacts would occur.

Operation Impacts

The construction of several new structures on the campus would result in a net increase in the amount of permanent facility lighting required. However, considering the location of the Project in a highly urbanized part of the City of Orange, new CHOC facility lighting would not be out of scale with surrounding development and would represent an incremental increase in the total amount of lighting used in the vicinity. Exterior paint colors and materials used to construct the Project would be non-reflective. No exposed metal or other materials are proposed that could result in a substantial amount of glare. All new permanent lighting would be required to comply with related City of Orange Municipal Code ordinances, which are generally intended to control and reduce impacts associated with light and glare on neighboring properties. In accordance with MM 4.1-1 from the MMRP, the Applicant would submit a photometric analysis for review and approval by the City of Orange Community Development Department and the City of Orange Police Department. This review would assure Project compliance with applicable ordinances related to lighting. As a result, Project operations would not result in a substantial source of light or glare that would adversely affect day or nighttime views in the area. No new impacts would occur.

Proposed Significance Determination

No New Impact/No Impact.

Previous Significance Determination:

There is the potential for the proposed Project to result in a significant impact from the creation of new sources of light and glare on the Project site which may affect nighttime views in the surrounding area (EIR).

Mitigation Measures:

MM 4.1-1 The Applicant shall submit a photometric analysis for review and approval by the City of Orange Community Development Department and the City of Orange Police Department. The photometric analysis shall provide evidence that the lighting design is consistent with the City of Orange Municipal Code Ordinance I 7.12.030 and has been designed to provide for lighting that is directed, controlled, screened, and/or shaded such that light and glare would not result in direct illumination on the surrounding properties or roadways.

Significance Determination After Mitigation:

With the incorporation of Mitigation Measure MM 4.1-1, the proposed Project's impacts related to light and glare would be reduced to a less than significant level.

2. AGRICULTURE AND FOREST RESOURCES

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Environmental Setting

According to the California Department of Conservation, California Important Farmland Finder (Department of Conservation 2016), the Project site is mapped as Urban and Built-Up Land and not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Project site is not zoned for agricultural use or protected from development under a Williamson Act contract

(Department of Conservation 2018a), nor is it zoned as forestland (Department of Conservation 2018b). It is an urban area that contains no farmland, agricultural use, or forestland.

Impact Analysis

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Project site is mapped as Urban and Built-Up Land and not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

Construction Impacts

As no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is located on the Project site, construction of the Project would not convert any Farmland to non-agricultural use. No impacts would occur.

Operation Impacts

As no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is located on the Project site, Project operations would not convert any Farmland to non-agricultural use. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

The Project site is urban and is not zoned for agricultural use nor is it under a Williamson Act contract (Department of Conservation 2018a).

Construction Impacts

As the Project site is urban and is not zoned for agricultural use nor is it under a Williamson Act contract, construction of the Project would not conflict with zoning for agricultural use or a Williamson Act contract. No impacts would occur.

Operation Impacts

As the Project site is urban and is not zoned for agricultural use nor is it under a Williamson Act contract, Project operations would not conflict with zoning for agricultural use or a Williamson Act contract. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

The Project site is urban and is not zoned for forestland or timberland (Department of Conservation 2018b).

Construction Impacts

As the Project site is urban and is not zoned for forestland or timberland, construction of the Project would not conflict with zoning for forestland or timberland. No impacts would occur.

Operation Impacts

As the Project site is urban and is not zoned for forestland or timberland, Project operations would not conflict with zoning for forestland or timberland. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

The Project site is located in an urban area and does not contain any forest land (Department of Conservation 2018b).

Construction Impacts

As the Project site is urban and does not contain any forest land, construction of the Project would not result in loss of forest land or convert forest land to non-forest use. No impacts would occur.

Operation Impacts

As the Project site is urban and does not contain any forest land, Project operations would not result in loss of forest land or convert forest land to non-forest use. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The Project site does not contain farmland or forest land (Department of Conservation 2018b).

Construction Impacts

As the Project site is urban and does not contain any farmland or forest land, construction of the Project would not result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impacts would occur.

Operation Impacts

As the Project site is urban and does not contain any farmland or forest land, Project operations would not result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

3. AIR QUALITY

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

Climate and Meteorology

The climate in the region is classified as Mediterranean with hot, dry summers and wet winters.

The regional climate is primarily influenced by the Pacific High high-pressure system, topography including the Santa Ana Mountain Range, and the moderating effects of the Pacific Ocean. The region is almost completely enclosed by mountains to the north and east, resulting in a regular daily reversal of wind direction – offshore at night and onshore during the day. With the concentrated population and industry, pollution products tend to accumulate and remain within this circulation pattern. Summer is a dry period over most of the state due to the semi-permanent Pacific high pressure that deflects most storms far to the north. In winter, the Pacific High weakens and shifts southward. Upwelling ceases, and winter storms become frequent. Weather data collected at the Western Regional Climate Data Center (WRCC) Santa Ana Fire Station (047888) indicates the average maximum temperatures during the winter and summer months for the period of April 1906 through June 2016 ranged from 68.6 to 84.0 degrees Fahrenheit, respectively. Annual average total precipitation is approximately 14 inches with over 95 percent of the seasonal rainfall between October and April (WRCC 2020).

Air Basin

The proposed Project area is located within the South Coast Air Basin (SCAB). The SCAB covers all of Orange County and non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Within the SCAB, air quality is regulated by the South Coast Air Quality Management District (SCAQMD).

Regulatory Background

Ambient Air Quality Standards

The Clean Air Act (CAA) of 1970, which was amended in 1990, is the federal law that governs air quality. An air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without any harmful effects on people or the environment. The U.S. Environmental Protection Agency (USEPA) is responsible for establishing national ambient air quality standards (NAAQS) for six criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and particulate matter. Particulate matter criteria pollutants are classified as either respirable particulate matter less than 10 micrometers in diameter (PM_{10}) or fine particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$).

In 1959 California enacted legislation requiring the state Department of Public Health to establish air quality standards and necessary controls for motor vehicle emissions. The California Air Resource Board (CARB) has set California Ambient Air Quality Standards (CAAQS) for four pollutants in addition to the six NAAQS criteria pollutants: sulfates, hydrogen sulfide (H_2S), vinyl chloride (C_2H_3Cl), and visibility-reducing particles. California law continues to mandate California ambient air quality standards (CAAQS), which are often more stringent than national standards.

Table 3-1 presents the NAAQS and CAAQS for the criteria air pollutants at different averaging periods, and the primary and secondary standards for each. Primary standards are the levels of air quality necessary to protect the public health with an adequate margin of safety. Secondary standards are the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Table 3-1. Criteria Pollutant NAAQS and CAAQS

Pollutant	Averaging Time	CAAQS [a]	NAAQS [b]	
			Primary	Secondary
O_3	1 Hour	0.09 ppm (180 µg/m^3)	--	
	8 Hours	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3) [c]	0.070 ppm (137 µg/m^3) [c]
CO	1 Hour	20 ppm (23 mg/ m^3)	35 ppm (40 mg/m^3)	--
	8 Hours	9.0 ppm (10 mg/ m^3)	9 ppm (10 mg/m^3)	--
NO_2	1 Hour	0.18 ppm (339 µg/ m^3)	100 ppb (188 µg/m^3)	--
	AAM	0.030 ppm (57 µg/ m^3)	0.053 ppm (100 µg/m^3)	0.053 ppm (100 µg/m^3)
SO_2	1 Hour	0.25 ppm (655 µg/ m^3)	75 ppb (196 µg/m^3)	--
	3 Hours	--	--	0.5 ppm (1,300 µg/m^3)
	24 Hours	0.04 ppm (105 µg/ m^3)	0.14 ppm (365 ug/m^3) [d]	--
	AAM	--	0.030 ppm (81 ug/m^3) [d]	--
Pb	30-Day	1.5 µg/ m^3)	--	--
	Calendar Quarter	--	1.5 µg/m^3 [e]	1.5 µg/m^3 [e]
	Rolling 3-Month	--	0.15 µg/m^3	0.15 µg/m^3
PM_{10}	24 Hours	50 µg/ m^3	150 µg/m^3 [f]	150 µg/m^3 [f]
	AAM	20 µg/ m^3	--	--
$PM_{2.5}$	24 Hours	--	35 µg/m^3 [g]	35 µg/m^3 [g]
	AAM	12 µg/ m^3	12.0 µg/m^3	15 µg/m^3
Sulfates	24 Hours	25 µg/ m^3	--	--
H_2S	1 Hour	0.03 ppm (42 µg/ m^3)	--	--
C_2H_3Cl	24 Hours	0.01 ppm (26 µg/ m^3)	--	--

Table 3-1. Criteria Pollutant NAAQS and CAAQS

Pollutant	Averaging Time	CAAQS [a]	NAAQS [b]	
			Primary	Secondary
Visibility Reducing Particles	8 Hours	Extinction coefficient of 0.23 per kilometer	--	--

Source: National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin (SCAQMD 2020).

Notes:

a Pollutant concentrations should not exceed CA standards for O_3, CO, SO_2 (1- and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility reducing particles. Pollutant concentrations shall not equal or exceed any other concentrations.

b Pollutant concentrations should not exceed national standards (other than O_3, particulate matter, and those based on AAM) more than once per year. Annual standards should never be exceeded.

c An area achieves the O_3 standard 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.

d Applies to areas of nonattainment; however, there are no SO_2 nonattainment areas in California.

e Applies to areas of Pb nonattainment in Los Angeles County only.

f An area achieves the PM_{10} 24-hour standard when the expected number of days per calendar year with a 24-hour average concentration greater than 150 $\mu g/m^3$ is equal to or less than one.

g An area achieves the $PM_{2.5}$ 24-hour standard when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

mg/m^3: milligrams per cubic meter

$\mu g/m^3$: micrograms per cubic meter

ppb: parts per billion

ppm: parts per million

AAM: Annual Arithmetic Mean

Significance Thresholds

The SCAQMD has developed criteria for determining whether emissions from a project are regionally significant. The criteria are useful for estimating whether a project is likely to result in a violation of the NAAQS and/or whether the Project is in conformity with plans to achieve attainment. The SCAQMD has published guidance on conducting air quality analyses under CEQA. SCAQMD's significance thresholds are summarized in Table 3-2 for criteria pollutant emissions during construction activities and project operation. A project is considered to have a regional air quality impact if emissions from its construction and/or operational activities exceed the corresponding SCAQMD significance thresholds.

Table 3-2. SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction**	**Operation**
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

Table 3-2. SCAQMD Air Quality Significance Thresholds

Toxic Air Contaminants (TACs), Oder and GHG Thresholds	
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk greater than or equal to 10 in 1 million Cancer Burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) Chronic & Acute Hazard Index greater than or equal to 1.0 (project increment)
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402
GHG	10,000 MT/yr CO_2eq for industrial facilities 3,000 MT/yr CO_2eq for commercial, residential, mixed-use projects
Ambient Air Quality Standards for Criteria Pollutants [b]	
NO_2 1-hour average Annual arithmetic mean	SCAQMD is in attainment: project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)
PM_{10} 24-hour average Annual average	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 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)
Sulfate 24-hour average	25 µg/m³ (state)
CO 1-hour average 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 Rolling 3-month Average	 1.5 µg/m³ (state) 0.15 µg/m³ (federal)

[a] Source: SCAQMD CEQA Handbook (SCAQMD 2006)

[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.

KEY: lbs/day=pounds per day; ppm=parts per million; µg/m³=microgram per cubic meter; VOC: volatile organic compound; TAC: toxic air contaminant; GHG: greenhouse gas

MT/yr CO_{2eq}=metric tons per year of CO_2 equivalents

Existing Air Quality

Air Basin Attainment Status

Areas can be classified as non-attainment, maintenance, attainment, or unclassified. Geographic areas that exceed a national and/or state Ambient Air Quality Standards (NAAQS and CAAQS) for a criteria pollutant are considered “non-attainment” areas for that pollutant. Conversely, areas that are below a

criteria pollutant standard are considered "attainment." Maintenance areas are defined as previously exceeding the NAAQS or CAAQS (non-attainment) for a criteria pollutant but are presently attaining that standard. Maintenance areas are required to develop a maintenance plan outlining steps for continued attainment over the maintenance period. Table 3-3 summarizes the attainment status within the Project area, which is within the SCAB, Los Angeles subarea.

Table 3-3. Los Angeles - SCAB Attainment Status

Criteria Pollutant	Area	Federal Status	State Status
Carbon Monoxide 1-hour/8-hour[1,2]	Los Angeles- SCAB	Attainment (Unclassified)	Attainment
Lead	Los Angeles- SCAB	Attainment (Unclassified)	Attainment
Nitrogen Dioxide[1,2]	Los Angeles- SCAB	Attainment (Unclassified)	Attainment
Ozone 8-hour (2008)[1] 8-hour (2015)[1,2]	Los Angeles- SCAB	Non-attainment (Extreme) (Extreme)	Non-attainment
Particulates ($PM_{2.5}$) Annual (Primary)[1,2] Annual (Secondary)[1] 24-hour[1]	Los Angeles- SCAB	Non-attainment (Moderate) (Serious) (Moderate)	Non-attainment
Particulates (PM_{10})[1,2]	Los Angeles- SCAB	Attainment	Non-attainment
Sulfur Dioxide[1,2]	Los Angeles- SCAB	Attainment (Unclassified)	Attainment
Particulate sulfate[2]	Los Angeles- SCAB	n/a	Attainment
Hydrogen sulfide[2]	Los Angeles- SCAB	n/a	Unclassified
Visibility reducing particles[2]	Los Angeles- SCAB	n/a	Unclassified

Sources: USEPA Green Book (USEPA 2020), California Ambient Air Quality Standards (CARB 2016).
1. National Ambient Air Quality Standards.
2. California Ambient Air Quality Standards.

Local Air Quality

The applicable air quality plan for Orange County is the SCAQMD's 2016 Air Quality Management Plan (AQMP) (SCAQMD 2016). The AQMP identifies strategies to reduce criteria pollutant emissions and to achieve the ozone and $PM_{2.5}$ NAAQS, more specifically. Although mobile sources contributed most of the NO_x (precursor to ozone) emissions within the SCAB in 2012, SCAQMD has limited authority to regulate mobile sources. As such, SCAQMD coordinated with CARB and USEPA to ensure strategies are implemented to achieve mobile source reductions. Strategies to address emission reductions that would be achieved by CARB's mobile source strategies within SCAQMD's purview are discussed in the AQMP. SCAQMD has proposed and adopted control measures to limit volatile organic compounds (VOCs) from coatings as well (SCAQMD 2016). The AQMP is currently being updated for 2022.

The AQMP contains control measures that include AQMP EGM-01 - Emission Reductions from New Development and Redevelopment Projects [All Pollutants]. This control measure is considered a regulatory requirement, and may be implemented as follows:

AQ RR-1: The proposed Project will include the latest Title 24 green building standards that affect project emissions and a regionwide shift toward compact development and active transportation with implications for trip generation, as documented in

Southern California Association of Governments (SCAG) 2016 – 2040 Regional Transportation Plan/Sustainable Communities Strategy pursuant to Senate Bill 375 (SCAG 2016). If emission mitigation actions cannot be readily achieved by the Project Proponent, South Coast Air Quality Management District staff will consider (with input from stakeholders) the potential and effectiveness of an alternative mitigation fee, which will be used to identify emission reduction projects in the vicinity of the proposed Project.

The SCAQMD 2016 AQMP proposes the following control measures aimed at emissions reduction for mobile (on-road) sources of VOC (ROG), NO_x and CO:

- MOB-05: Accelerated Penetration of Partial Zero-Emission and Zero-Emission Vehicles (VOC, NO_X, CO)

  This measure focuses on existing passenger cars, sports utility vehicles, and other light- and medium-duty vehicles through the increased use of partial zero-emission and zero emission vehicles that would provide substantial improvements in emissions performance beyond current conventional gasoline and diesel vehicle technologies.

- MOB-06: Accelerated Retirement of Older Light-Duty and Medium-Duty Vehicles (VOC, NO_X, CO)

  This measure focuses on accelerating the retirement of older gasoline- and diesel-powered vehicles up to 8,500 pounds gross vehicle weight (GVW). These vehicles include passenger cars, sports utility vehicles, vans, and light-duty pick-up trucks.

- MOB-07: Accelerated Penetration of Partial Zero-Emission and Zero-Emission Light-Heavy- and Medium-Heavy-Duty Vehicles (NO_X, PM)

  This measure seeks greater emission reduction benefits through the early deployment of near zero, partial zero-emission, and zero-emission light-heavy- and medium-heavy-duty vehicles with gross vehicle weight ratings (GVWR) from 8,501 pounds to 33,000 pounds.

- MOB-08 Accelerated Retirement of Older On-Road Heavy-Duty Vehicles (NO_X, PM)

  This measure seeks additional emission reductions from existing heavy heavy-duty vehicles with gross vehicle weight ratings (GVWR) greater than 33,000 pounds to help achieve the emission reductions associated with the State Implementation Plan Strategy "Further Deployment of Clean Technologies" measure for on-road heavy duty vehicles.

- MOB-09: On-Road Mobile Source Emission Reduction Credit Generation Program (NO_X, PM)

  This measure seeks to develop mechanisms to incentivize the early deployment of zero and near-zero emission trucks through the generation of mobile source emission reduction credits that can be used only by entities affected under the 2016 AQMP control measures MOB-01 through MOB-04 (concerning marine ports, railyards, warehouse distribution centers, and airports), MOB-08, and EGM-01.

The implementation of these mobile source control measures is accomplished by CARB or at the SCAQMD level with no control by the project sponsor.

Control measure EGM-01 (AQ RR-1) provides incentives for project sponsors to implement cleaner technologies and materials, and designs that accommodate new technology deployment (such as including footprints for vehicle charging stations) in new developments. The SCAQMD operates ambient air quality monitoring stations in Orange County. Each monitoring station collects data on a variety of criteria air pollutant concentrations. The "Anaheim – Pampas Lane" monitoring station is located approximately 5.6 miles from the proposed Project and provides the most representative air data available for ozone, $PM_{2.5}$, and NO_2 in the proposed Project vicinity. Table 3-4 presents local ambient air quality monitoring data at this station for the most recent available years, 2016 through 2018, and compares measured pollutant concentrations with the most stringent applicable NAAQS or CAAQS.

Table 3-4. Ambient Criteria Pollutant Concentration Data for Orange County

Pollutant	Most Stringent Applicable Standard	Maximum Concentration		
		2016	2017	2018
O_3 [a]				
Number of days 1-hour standard exceeded		2	0	1
Maximum 1-hour concentration (ppm)	0.09 ppm [b]	*0.103*	0.090	*0.112*
Number of days 8-hour standard exceeded		4	4	1
Maximum 8-hour concentration (ppm)	0.07 ppm [b]	*0.075*	*0.076*	*0.071*
NO_2				
Number of days 1-hour standard exceeded		0	0	0
Maximum 1-hour concentration (ppm)	0.18 ppm [b]	0.064	0.081	0.066
CO				
Number of days 1-hour standard exceeded		--	--	--
Maximum 1-hour concentration (ppm)	20 ppm [b]	--	--	--
Number of days 8-hour standard exceeded		0	0	0
Maximum 8-hour concentration (ppm)	9 ppm [b, c]	2.1	2.1	1.9
SO_2				
Number of days 1-hour standard exceeded		--	--	--
Maximum 1-hour concentration (ppm)	0.25 ppm [b]	--	--	--
PM_{10}				
Estimated days 24-hour standard exceeded		18.4 [d]	32.8 [d]	12.0 [d]
Maximum 24-hour concentration (µg/m^3)	50 µg/m^3 [b]	*74.0*	*95.7*	*94.6*
$PM_{2.5}$				
Estimated days 24-hour standard exceeded		1.1	[e]	7.2
Maximum 24-hour concentration (µg/m^3)	35 µg/m^3 [d]	24.0	*38.1*	32.1
Annual average (µg/m^3)	12 µg/ m^3 [b,d]	9.4	[e]	12.2

Sources: iADAM Air Quality Statistics (CARB 2020b); USEPA Outdoor Air Quality Monitor Values Report (USEPA 2018).
Notes:

a. Data obtained from SCAQMD Anaheim-Pampas Lane monitoring station.
b. State standard, not to be exceeded.
c. Federal standard, not to be exceeded.
d. Statistics may include data that are related to an exceptional event.
e. Insufficient (or no) data to determine the value.

Italicized values exceed the stated standard.

Sensitive Receptors

Sensitive receptors are persons who would be more susceptible to air pollution than the general population, such as children, athletes, the elderly, and the chronically ill. Examples of land uses where substantial numbers of sensitive receptors are often found are schools, daycare centers, parks, recreational areas, medical facilities, nursing homes, and convalescent care facilities. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended times, resulting in sustained exposure to pollutants. The closest sensitive receptors to the Project are the remainder of the CHOC campus and the St. Joseph Hospital Orange campus. Other nearby receptors include an apartment complex located 335 feet south of the Project site on the opposite side of State Route 22 and a single-family neighborhood located approximately 450 feet from the Project site on the northwest corner of South Alpine Road and La Veta Avenue.

Impact Analysis

Methodology

The California Air Pollution Officers Association (CAPCOA) California Emissions Estimator Model (CalEEMod) is a statewide land use emissions computer model designed to provide a uniform platform to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operation from a variety of land use models. SCAQMD staff recommends all projects evaluate emissions with CalEEMod if software is used for the analysis. Construction and operational criteria pollutant emissions for the proposed Project were estimated using the CalEEMod v. 2016.3.2. Based on the current project description, the general inputs listed in Table 3-5 were entered in the Land Use and Construction/Demolition tabs.

Table 3-5. CalEEMod General Construction and Demolition Inputs - Proposed Project

Building	Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet
New Medical Office Building	Commercial	Hospital	370	1,000 ft^2	8.49	370,000
Expansion of 3 parking levels on existing 9-level Associate Parking Garage	Parking	Enclosed w/elevator	500	Spaces	4.5	200,000
Demolition of Existing Structures						
Building	Phase Name		Size Metric	Unit Amount (SF)		
PADRE Foundation Building	Demolition		Bldg. Square Footage	2,000		
Surface Parking Lot	Demolition		110 spaces	44,000[1]		

1. Square footage based on default value per parking space in CalEEMod.

Estimated Emissions – Construction and Operational

The results of the CalEEMod run using the inputs listed in Table 3-5 are shown in Table 3-6. Model default values were assumed for construction equipment type and number, schedule and vehicle miles traveled for on-road construction vehicles based on the inputs in Table 3-5. Similarly, model default

values were assumed for operational inputs including commuting and patient traffic, use of architectural coatings (including paint), and landscaping activities based on Table 3-5 inputs.

Table 3-6. Operational and Construction Criteria Pollutant Emissions - Proposed Project

	Net Construction Emissions (pounds/day) [1]					
	ROG	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Threshold	75	100	550	150	150	55
Unmitigated	10.93	16.75	13.60	0.04	3.04	1.48
Mitigated [1]	10.23	5.49	14.17	0.04	2.43	0.91
	Net Operational Emissions (pounds/day)					
	ROG	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Threshold	55	55	550	150	150	55
	Unmitigated					
Added	16.04	40.70	107.40	0.45	37.09	10.47
Removed	(0.14)	(0.35)	(0.91)	(0.004)	(0.30)	(0.08)
Net	15.90	40.35	106.49	0.45	36.79	10.39
	Mitigated [2]					
Added	15.73	38.90	99.19	0.41	33.62	9.52
Removed	(0.13)	(0.34)	(0.84)	(0.003)	(0.27)	(0.08)
Net	15.60	38.56	98.35	0.41	33.35	9.44

Notes:

1. USEPA Tier 4 diesel engine standards (USEPA 2020) were selected in CalEEMod for determining emissions from construction equipment and assuming these mitigation measures are part of the project construction.
2. Programs like trip reduction, transit subsidies, telecommuting, and vanpool/shuttle service were selected in CalEEMod for determining project emissions and assuming these mitigation measures are part of the project operation.

Italicized values exceed SCAQMD daily threshold.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

The proposed Project includes activities that would change employment levels and increase traffic. The applicable air quality plan for Orange County is the SCAQMD's 2016 AQMP. The AQMP contains control measures that include AQMP EGM-01 - Emission Reductions from New Development and Redevelopment Projects [All Pollutants], and this control measure is considered a regulatory requirement. Although specific methods have not been developed by the AQMP EGM-01 control measure, the Project will implement methods (e.g., compact development, active transportation measures at the SCAG level, fee in lieu of mitigation) to reduce mobile emissions generated by its construction, operation, and maintenance.

Construction Impacts

The proposed Project would be constructed in a manner that conforms to AQMP EGM-01 which is considered a regulatory requirement for the purposes of CEQA analysis. In accordance with MM 4.2-1, MM 4.2-2, and MM 4.2-3 from the MMRP, the Applicant would require the grading contractor to provide occupants of the structures that contain sensitive receptors within the impacted area: (1) a bi-monthly cleaning of their air filter on their existing heating, ventilation, and air conditioning (HVAC) unit(s) by a certified technician; or (2) an industrial-strength portable air cleaner for their use, water all exposed surfaces three times per day, and water the soil to be moved prior to loading it onto the haul trucks during grading in the excavation phase of the construction activities. These requirements would assure Project consistency with the

applicable air quality plan. As a result, impacts associated with the proposed Project's construction would not have the potential to conflict with or obstruct implementation of the applicable air quality plan. No impacts would occur.

Operation Impacts

The proposed Project would operate in a manner that conforms to AQMP EGM-01 which is considered a regulatory requirement for the purposes of CEQA analysis. In accordance with MM 4.2-4 and MM 4.2-5 from the MMRP, the Applicant would restrict truck and ambulance idling at the loading docks and emergency room bays and provide on-site services to minimize vehicle trips during Project operations. These requirements would assure Project consistency with the applicable air quality plan. As a result, impacts associated with the proposed Project's operation would not have the potential to conflict with or obstruct implementation of the applicable air quality plan. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Construction: Significant impact due to conflict with the SCQAMD Air Quality Management Plan as a result of short-term PM_{10} emissions, primarily during excavation and grading phase of the construction activities (EIR).

Operations: Significant impact to regional air quality due to NO_X and CO emissions, primarily from motor vehicles and the off-site generation of electricity (EIR).

Mitigation Measures:

MM 4.2-1 During the excavation and grading phase of the construction activities, the Applicant shall require that the grading contractor make one of the following available to the occupants of the structures that contain sensitive receptors within the impacted area: (1) a bi-monthly cleaning of their air filter on their existing heating, ventilation, and air conditioning (HVAC) unit(s) by a certified technician; or (2) an industrial strength portable air cleaner for their use. The impacted area shall consist of the property located within the modeled area that would exceed 10.4 µg per m^3 of PM_{10} emissions during the excavation and grading phase of the construction activities for the proposed Project.

MM 4.2-2 During the grading and excavation phase of the construction activities for the proposed Project, the Applicant shall require that the grading contractor water all exposed surfaces three times per day.

MM 4.2-3 During the grading and excavation phase of the construction activities for the proposed Project, the Applicant shall require that the grading contractor water the soil to be moved prior to loading it onto the haul trucks.

MM 4.2-4 During the operation of CHOC Hospital after completion of Phase 1 of the proposed Project, the Applicant shall restrict truck and ambulance idling at the loading docks

and emergency room bays. This shall be accomplished through signage and training of employees.

MM 4.2-5 During the operation of CHOC Hospital after completion of Phase 1 of the proposed Project, the Applicant shall provide on-site services to minimize vehicle trips, including, but not limited to, the following: meal or cafeteria service, automated teller machines, and areas for passive recreation.

Significance Determination After Mitigation:

Significant unavoidable impact due to short-term PM_{10} and NO_X emissions, primarily from dust and diesel exhaust during demolition/construction activities.

Significant and unavoidable impact due to long term NO_X and CO emissions primarily associated vehicle trips and off-site electrical production required for operations.

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

Emissions from the construction and operation of the Project were estimated using CalEEMod and are shown in Table 3-5. The proposed Project is located within the Los Angeles-SCAB nonattainment area for the federal and state 8-hour ozone (O_3) standard, the federal annual and 24-hour $PM_{2.5}$ and state annual $PM_{2.5}$ standards, and the state PM_{10} standard.

The pollutants of concern are particulates and ozone precursors NO_X and VOCs. The CalEEMod estimates emissions of reactive organic compounds (ROG), which are CARB's equivalent of VOCs as defined by the USEPA.

Although specific methods have not been developed by the AQMP EGM-01 control measure, the proposed Project would implement methods (e.g., compact development, active transportation measures at the SCAG level, fee in lieu of mitigation), once identified, to reduce mobile emissions generated by its operation and maintenance.

Construction Impacts

As shown in Table 3-6, net estimated construction emissions for the pollutants of concern, PM_{10}/$PM_{2.5,}$ NO_X, and ROG are below the daily threshold limit. In accordance with MM 4.2-2 and MM 4.2-3 from the MMRP, the Applicant would require the grading contractor to water all exposed surfaces three times per day and water the soil to be moved prior to loading it onto the haul trucks during grading in the excavation phase of the construction activities. These requirements would assure the Project would not 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. As a result, impacts associated with the proposed Project's construction would not result in a cumulatively considerable net increase on a regional level. No new impacts would occur.

Operation Impacts

As shown in Table 3-6, net estimated operational emissions for PM_{10}/$PM_{2.5,}$ NO_X, and ROG are below the daily threshold limit. In accordance with MM 4.2-4 and MM 4.2-5 from the MMRP,

the Applicant would restrict truck and ambulance idling at the loading docks and emergency room bays and provide on-site services to minimize vehicle trips during Project operations. These requirements would assure the Project would not 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. As a result, impacts associated with the proposed Project's operation would not result in a cumulatively considerable net increase on a regional level. No new impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Construction: Significant short-term impact to regional air quality due to PM_{10} and $PM_{2.5}$ emissions, primarily from disturbed soil and equipment exhaust.

Operations: Significant long-term impact to regional air quality due to NO_X and CO emissions, primarily from motor vehicles and the off-site generation of electricity.

Mitigation Measures

MM 4.2-2 During the grading and excavation phase of the construction activities for the proposed Project, the Applicant shall require that the grading contractor water all exposed surfaces three times per day.

MM 4.2-3 During the grading and excavation phase of the construction activities for the proposed Project, the Applicant shall require that the grading contractor water the soil to be moved prior to loading it onto the haul trucks.

MM 4.2-4 During the operation of CHOC Hospital after completion of Phase 1 of the proposed Project, the Applicant shall restrict truck and ambulance idling at the loading docks and emergency room bays. This shall be accomplished through signage and training of employees.

MM 4.2-5 During the operation of CHOC Hospital after completion of Phase 1 of the proposed Project, the Applicant shall provide on-site services to minimize vehicle trips, including, but not limited to, the following: meal or cafeteria service, automated teller machines, and areas for passive recreation.

Significance Determination After Mitigation:

Construction: With the incorporation of Mitigation Measures MM 4.2-2 and MM 4.2-3, the proposed Project's incremental contribution to this cumulative impact would be reduced to a less than significant level (EIR).

Operations: With the incorporation of Mitigation Measures MM 4.2-4 and MM 4.2-5, the proposed Project's incremental contribution to this cumulative impact would be reduced to the extent feasible. However, this cumulative impact would remain a significant unavoidable impact (EIR).

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

For a determination of potential local level increases related to Project construction, the Local Source Thresholds (LSTs) lookup tables established by SCAQMD were referenced (SCAQMD 2009). The proposed Project is located in Source Receptor Area (SRA) 17 for Central Orange County. The LSTs apply to construction and operational footprints of up to 5 acres. Their applicability for the proposed Project would apply only if the active construction at any given time is 5 acres or less. The proposed operational footprint exceeds 5 acres; therefore, the SRA 17 LSTs would not apply.

The pollutants of concern are particulates and ozone precursors NO_X and VOCs. The closest sensitive receptors are the CHOC campus and the St. Joseph Hospital Orange campus. Other nearby receptors include an apartment complex located 335 feet (102 meters) south of the Project site on the opposite side of State Route 22 and a single-family neighborhood located 607 feet (185 meters) from the Project site on the northwest corner of South Alpine Road and La Veta Avenue.

Construction Impacts

Table 3-7 shows the LST allowable emissions at these receptors for a construction footprint of up to 5 acres in SRA 17 – Central Orange County. As shown in Table 3-6, daily construction emissions for PM_{10} and $PM_{2.5}$ would satisfy all construction LST allowable emissions at the listed receptor locations. Although the estimated Project footprint is closer to 13 acres, the listed LSTs are below those that would apply if the Project were less than 5 acres. Based on these criteria, construction of the Project would not expose sensitive receptors to substantial pollutant concentrations. No impacts would occur.

Operation Impacts

The LSTs at these receptors for a project operational footprint of up to 5 acres in SRA 17 – Central Orange County are listed in Table 3-7. Daily operational emissions for PM_{10} and $PM_{2.5}$ (see Table 3-6) would exceed the LST allowable emissions at the CHOC North and CHOC East receptor locations but would satisfy all operational LST allowable emissions at the remaining receptor locations. However, the CalEEMod results show that tailpipe emissions make only a fractional contribution compared to fugitive emissions (non-tailpipe emissions). This indicates that the majority of the operational emissions of PM_{10} and $PM_{2.5}$ would be generated off site due to tire and brake wear that occur from worker commutes and hospital visits. The LST are intended only for on-site emissions (SCAQMD 2008), whereas the off-site emissions are considered regional, and the regional operational emissions are below the air basin thresholds (see Table 3-6). Local emissions for a hospital campus and associated parking lot building would be primarily attributable to tailpipe emissions from vehicles parking at the facility and service trucks and ambulances idling at the campus. Therefore, although the estimated Project footprint is closer to 13 acres, daily local operation emissions are below the listed LSTs that would apply if the Project were less than 5 acres. Based on these criteria, Project operations would not expose sensitive receptors to substantial pollutant concentrations. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Construction: The proposed project would not expose sensitive receptors to significant short-term toxic air contaminants during construction activities, and no significant impact would occur (EIR).

Table 3-7. Local Source Thresholds for SRA 17 – Central Orange County

Sensitive Receptor	Criteria Pollutant	NO_x [1, 2]	PM_{10} [1]	$PM_{2.5}$ [1]	CO [1]
	Distance to Project	**Allowable Construction Emissions (lbs/day); ≤ 5-acres site[1]**			
Apartments	102 meters	180	55	15	2,498
Single-Family Neighborhood	185 meters				
St. Joseph Hospital	137 meters				
CHOC North [3]	35 meters	183	13	7	1,253
CHOC East [4]	60 meters	167	39	9	1,734
Sensitive Receptor	**Criteria Pollutant**	**NO_x [1, 5]**	**PM_{10} [3]**	**$PM_{2.5}$ [4]**	**CO [5]**
	Distance to Project	**Allowable Operation Emissions (lbs/day); ≤ 5-acres site[1]**			
Apartments	102 meters	180	14	4	2,498
Single-Family Neighborhood	185 meters				
St. Joseph Hospital	137 meters				
CHOC North [3]	35 meters	183	3	2	1,253
CHOC East [4]	60 meters	167	10	3	1,734

Source: Appendix C Mass Lookup Tables, SCAQMD Final Localized Significance Thresholds (SCAQMD 2009).

1. Maximum daily emissions that would achieve the local source threshold ambient air quality levels listed in Table 3-2 for: NO_x, PM_{10}, $PM_{2.5}$ and CO
2. Conversion of NO_x to NO_2
3. Closest CHOC office building exterior area north of the Project site.
4. Closest CHOC office building exterior area east of the Project site.

Operations: No significant long-term health risk is anticipated from Project-related diesel emissions with the ongoing operations of the proposed Project, and no significant impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Land uses that generate considerable odors include agriculture, industrial facilities such as chemical plants, and landfills. Siting a land use that generates odors near existing sensitive receptors or siting a new sensitive receptor near an existing odor source could result in an odor impact. The level of impact an odor could have on sensitive receptors is dependent upon variables such as wind speed and direction, facility design features, and distance from source to receptor (SCAQMD 2005). Land uses in the proposed Project area are primarily residential, retail, and municipal.

No substantial sources of odors are located in the vicinity of the proposed Project. The proposed Project would introduce expanded hospital and parking facilities to an existing site.

Construction Impacts

Construction of the proposed Project would temporarily introduce demolition, grading, paving, and site erection equipment in the area. No sources typically associated with other emissions, such as those leading to odors, would result from construction of the proposed Project. No substantial sources of odors are located in the vicinity of the proposed Project. Therefore, Project construction would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. No impacts would occur.

Operation Impacts

Operation of the proposed Project would introduce additional traffic to the area. No sources typically associated with other emissions, would result from Project operations. No substantial sources of odors are located in the vicinity of the proposed Project. Therefore, Project operations would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Construction: Due to the short-term nature and limited amounts of odor-producing materials being utilized, a short-term less than significant impact related to odors would occur during construction of the proposed project (EIR).

Operations: Due to the distance of the nearest sensitive receptors from the proposed Medical Office Building and through compliance with SCAQMD's Rule 402, no significant impact related to odors would occur during the ongoing operations of the proposed project (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

4. BIOLOGICAL RESOURCES

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Environmental Setting

The Project site is an active hospital campus, with associated infrastructure, within a completely urbanized setting. Limited landscaping of ornamental vegetation and planted trees lines the sidewalks and parking islands. Adjacent land is developed. No vacant parcels are found near the site. The site does not contain any native vegetation.

For purposes of analysis, special status species include:

- Plant and animal species listed as endangered, threatened, or candidates for listing under the Federal Endangered Species Act (FESA)
- Plant and animal species listed as endangered, threatened, or candidates for listing under the California Endangered Species Act (CESA)
- Bird species protected under the Migratory Bird Treaty Act (MBTA) (Public Law 65-186, as amended; 16 U.S. Code Section 703 et seq.)
- Animals designated as Fully Protected Species, as defined in California Fish and Game Code Sections 3522, 4700, 5050, and 5515
- Animal species designated as Species of Special concern by the California Department of Fish and Wildlife (CDFW)
- Plants that are state listed as Rare (rank 1 or 2)
- Plant species ranked by the CNPS as having a California Rare Plant Rank (CRPR) of 1 or 2

A database record and literature review search reviewing sensitive biological resources was conducted within a 5-mile radius surrounding the Project site. The CDFW's California Natural Diversity Database (CNDDB; CDFW 2020a); the U.S. Fish and Wildlife (USFWS) Information, Planning and Consultation System (IPaC System; USFWS 2020); the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2020), the CDFW website of Natural Community Conservation Planning (NCCP; CDFW 2020b); and the USFWS National Wetlands Inventory (NWI) database (USFWS 2020b), *Anaheim* and *Orange* USGS Quadrangles (USGS 2020a) were accessed to obtain information about the Project site. To locate any potential habitat conservation plans within the area, the CDFW website was used. This search was conducted to provide information on potentially present sensitive biological species and/or aquatic resources that could occur on the site.

A search of the CNDDB was conducted (CDFW 2020a) to include the site and an area within a 1-mile radius of the site (Figure 4-1). Results of the search identified the following five special status animal species:

- California black rail *(Laterallus jamaicensis coturniculus*)
- steelhead (*Oncorhynchus mykiss)* –southern California Distinct Population Segment (DPS)
- western mastiff bat (*Eumops perotis*)
- American peregrine falcon *(Falco peregrinus anatum*)
- coast horned lizard (*Phrynosoma coronatum*)

One special status plant species (chapparal sand-verbena (*Abronia villosa* var*. aurita*) state Rare rank 2) was identified as potentially occurring in the area. No suitable habitat is present in the project area for four of the five special status animal species and the single special status plant species on site. One special status species, the American peregrine falcon, is a year-long resident in southern California and a California Fully Protected Species (CFPS; California Fish and Game Code Section 3511). This species is known to occur in the vicinity and could nest on the buildings, parking structures, and ledges, as well as in other existing raptor nests within the proposed Project footprint. The potential for this species to occur is low.

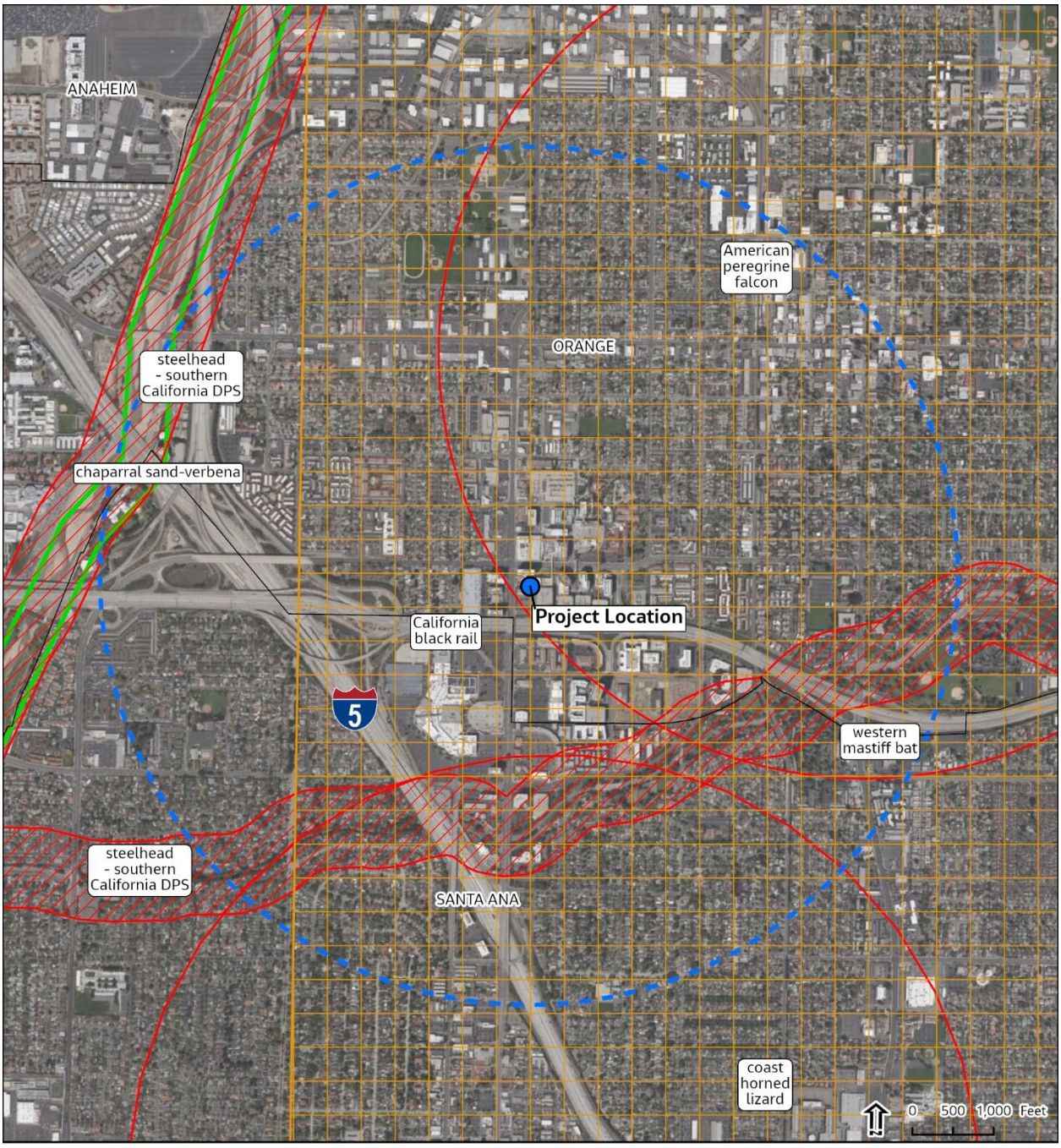
The USFWS response the iPaC query noted no critical habitat for any species was present at or adjacent to the Project site and included three species that may be present on site. The three species included were coastal California gnatcatcher, least Bell's vireo, and Santa Ana sucker; and, as noted previously, no suitable habitat is present in the project area for these species.

The California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2020) was queried. The results included only one plant species, the chapparal sand-verbena (CRPR ranking 1B.1) as having a potential to occur in the project area. As noted above, no habitat is present in the project area for the species.

The CDFW website of Natural Community Conservation Planning (NCCP) was queried to identify potential NCCPs and habitat conservation plans (HCPs) in the project area. The results showed the project area was included within the boundary of the Orange County Transportation Authority NCCP/HCP (OCTA NCCP/HCP). The OCTA NCCP/HCP is implemented when OCTA is the lead agency for projects and is not applicable to the Project. The next closest NCCP/HCP is the County of Orange (Central Coastal) NCCP/HCP, the closest point of this resource is approximately 2 miles east of the project area (CDFW 2020b).

The USFWS National Wetlands Inventory (NWI) database was queried for a 1-mile search. Two NWI listed wetlands were identified within 1 mile. These include Santiago Creek (designated R4SBAx), a riverine intermittent streambed that temporarily shows surface water for brief periods located approximately 0.4 mile south of the project area; and the Santa Ana River, where it crosses under Interstate 5 (designated L2USCh), a lacustrine, littoral, unconsolidated shore, seasonally flooded, and diked/impounded wetland that occurs 0.9 mile west of the project area.

The City of Orange Tree Preservation ordinance (Chapter 12.32 of the Municipal Code) regulates the removal and destruction of trees on undeveloped and public interest properties; however, this site does not fit into either of those categories. Although this Project is required to follow the Street Tree Specifications (Chapter 12.28 of the Municipal Code), which requires a permit for cutting or planting trees, it does not have any protection measures for certain types or sizes of trees. The County of Orange Tree Protection applies only to unincorporated parts of the County. Any ordinance or local policies protecting water sources and habitat adjacent to either the Santa Ana River or Santiago Creek do not apply to this Project.



One-Mile Radius
Plant (non-specific)
Animal (non-specific)
Animal (circular)
Sensitive EO's (Commercial only)
City Boundaries

Children's Hospital of Orange County

CNDDB Data Map

Data Source:
California Department of Fish and Wildlife 2021

Figure 4-1

Impact Analysis

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?

Resources with the potential for impact under this question include migratory birds protected under the MBTA and American peregrine falcon. The American peregrine falcon also carries the CFPS designation, meaning it cannot be taken or possessed at any time. Disruption of nests or nesting behavior would be considered an "unlawful take" under MBTA.

Construction Impacts

Construction activity could potentially disturb habitat and nesting behavior for migratory birds including American peregrine falcon. Existing trees and structures that could provide nesting habitat for migratory birds, and buildings that could support nests for American peregrine falcon, have been identified in the project area. Implementation of BIO-PDF-1, BIO-PDF-2, and BIO PDF-3 would preclude disturbance of nesting birds, including one special status species (the peregrine falcon) and no other resources are expected to occur within the project area. Therefore, construction of the proposed Project would not result in a substantial adverse effect, either directly or through habitat modifications, on special status species identified by the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service. No impacts would occur.

Operation Impacts

Operations activity would not disturb habitat and nesting behavior for migratory birds including American peregrine falcon. Project operations would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by CDFW, USFWS, or the National Marine Fisheries Service (NOAA Fisheries). No impacts would occur

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist). However, the 2008 Checklist did not include discussion or analysis of migratory birds or American peregrine falcon.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No riparian or sensitive natural community habitats, as defined by local or regional plans, policies, or regulations or by CDFW, or USFWS occur in or near the area.

Construction Impacts

As no riparian or sensitive natural community habitats, as defined by local or regional plans, policies, or regulations or by CDFW, or USFWS, occur in or near the project area, construction of the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS. No impacts would occur.

Operation Impacts

As no riparian or sensitive natural community habitats, as defined by local or regional plans, policies, or regulations or by CDFW or USFWS, occur in or near the project area, Project operations would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Project site does not contain state or federally protected wetlands.

Construction Impacts

As the Project site does not contain state or federally protected wetlands, construction of the Project would not have a substantial adverse effect on state or federally protected wetlands through the direct removal, filling, hydrological interruption, or other means. No impacts would occur.

Operation Impacts

As the Project site does not contain state or federally protected wetlands, Project operations would not have a substantial adverse effect on state or federally protected wetlands through the direct removal, filling, hydrological interruption, or other means. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No habitat for migratory fish or wildlife species occurs in the area (migratory birds and American peregrine falcon are discussed in this section in a). No established native resident or migratory wildlife corridors exist in the project area. No wildlife nursery sites exist in the project area.

Construction Impacts

As the Project site does not contain habitat for migratory fish or wildlife species, construction of the Project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of a native wildlife nursery site. No impacts would occur.

Operation Impacts

As the Project site does not contain habitat for migratory fish or wildlife species, Project operations would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery site. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The City of Orange Tree Preservation ordinance (Chapter 12.32 of the Municipal Code) regulates the removal and destruction of trees on undeveloped and public interest properties; however, this site does not fit into either of those categories. Thus, the Project would not conflict with any local policies or ordinances protecting biological resources, including the preservation of trees.

Construction Impacts

As the Project site is not subject to the City of Orange Tree Preservation ordinance, construction of the Project would not conflict with any local policies or ordinances protecting biological resources, including the preservation of trees. No impacts would occur.

Operation Impacts

As the Project site is not subject to the City of Orange Tree Preservation ordinance, Project operations would not conflict with any local policies or ordinances protecting biological resources, including the preservation of trees. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No significant impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project area does not lie within any applicable HCP or NCCP. No impact or conflict with any HCP or NCCP would occur.

Construction Impacts

As the project area does not lie within any applicable HCP or NCCP, construction of the Project would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan. No impacts would occur.

Operation Impacts

As the project area does not lie within any applicable HCP or NCCP, Project operations would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

5. CULTURAL RESOURCES

	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Environmental Setting

The analysis for cultural resources assesses the potential for substantial adverse changes to historical resources and archaeological resources (as defined in CEQA Guidelines, Part 15064.5) and the unexpected discovery of human remains (particularly Native American remains) within the CHOC Project site's direct area of potential effects (APE). The analysis also includes the potential for substantial adverse changes on any historical resources situated within a 0.25-mile radius indirect (visual) area of potential effect (APE) surrounding the Project site (Figure 5-1). Identification of historical resources within these areas was based on current (September 2020) records provided by the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) at California State University, Fullerton. Response from the SCCIC revealed no historical resources within either the direct or indirect APEs; however, one prehistoric isolate was previously recorded approximately 0.3 mile southwest of the Project site. The isolate was removed from the Project site in 2019 and is now in the possession of the Gabrieleño Band of Mission Indians-Kizh Nation (State of California, Department of Parks and Recreation 2019). Independent records searches also were conducted of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Office of Historic Preservation (OHP) Directory of Properties in the Historic Property Data File for Orange County (2012), and City of Orange and City of Santa Ana Historic Preservation databases and maps. A search of the Native American Heritage Commission's (NAHC's) Sacred Lands File (SLF) was requested on September 24, 2020, to determine the sensitivity of the Project site for cultural resources. The NAHC responded on September 25, 2020, with a finding that no cultural resources were found within the project area (Appendix A). The SLF records search was associated with CEQA-level information-gathering only and was not undertaken as part of formal, government-to-government consultation under California Assembly Bill 52 (AB 52).

Direct (Ground Disturbance) APE

0.25 Mile Indirect (Visual) APE

City Boundaries

Children's Hospital of Orange County

Cultural Resources Direct and Indirect Areas of Potential Effects

Data Sources:
Orange County 2021
United States Geological Survey 2021
GoogleEarth 2021

Figure 5-1

Pedestrian survey of the project site was conducted in August 2008 to support the Initial Study and Draft EIR for the *Children's Hospital of Orange County Master Plan* (Vista Community Planners, Appendix A 2008a) and no historical resources were identified within the direct APE. Given the hardscape conditions of the project site, which remains unchanged since the previous survey, cultural resources survey was not repeated. Supporting documentation for the cultural resources analysis is shown in the accompanying reference list.

The project site is situated within a dense urban area. The project site is essentially flat and encompasses 9 acres that comprise the cultural resources direct APE, almost all of which is hardscaped in buildings and paved parking and/or previously and extensively disturbed from construction and operational use. Existing buildings and structures on the CHOC campus were constructed between 1955 (CHOC West) and 2006 (nine-level parking garage) (City of Orange 2008, Appendix D). Prior to construction of the CHOC facilities, historic aerial images (NETROnline.com 2020; County of Orange 2020a) show that the direct APE encompassed farmsteads/ranches, groves of fruit trees, a gas station that was demolished ca. 1995 for construction of the CHOC Research Building, and various other buildings and structures of uncertain function that were removed prior to CHOC facility construction.

Given the dense urban landscape that interrupts street-level line-of-sight, a 0.25-mile circular radius surrounding the direct APE has been used for the cultural resources indirect APE (potential visual effects). Within the indirect APE, there are additional CHOC medical facilities, parking structures, and small retail centers to the north and east and the Garden Grove Freeway (State Route 22) and commercial and residential properties within the City of Santa Ana to the south. To the west across Main Street is a long commercial/retail strip mall situated north of La Veta Avenue (1960s era construction) and commercial/banking, medical and offices of the Orange County Transportation Authority to the south between La Veta Avenue and the Garden Grove Freeway, all of which are early 1960s-1970s era. Further to the west behind the strip mall are high density residential areas along South Crest Road, South Bedford Road, and South Alpine Road, all of which were built in the early to mid-1950s. South of the Garden Grove Freeway is the small portion of the City of Santa Ana that falls within the indirect APE. Within this area are paved parking lots and streets, two small retail centers (three buildings) at the southeast and northeast corners of Main Street and Town and Country Road (built ca. 2002), and the Windsor at Main Place Apartments situated at 1235 West Town and Country Road (built in 2000).

Historical resources surveys for the City of Orange were undertaken in 1987, 1997, and 2005. Results of the surveys and resource inventories are recorded in several documents, including the 2015 update of the Cultural Resources and Historic Preservation Element of the City's General Plan (City of Orange 2010a); Cultural Resources Appendix D (PAR Environmental Services, Inc. 2006) of the March 2010 Orange General Plan Program Environmental Impact Report (City of Orange 2010b); and the City of Orange Historic Preservation spatial database (City of Orange 2020h). These various documents provide specific data about historical resources in the City of Orange and offer sensitivity maps for various cultural resources types (e.g., built environment, prehistoric, historic archaeological resources). Combined, findings of the documents identified 11 individual historical resources, two of which are situated within the 0.25-mile-radius indirect APE, and two historic districts within the City of Orange. The majority of the individual resources are situated within the boundary of the Old Towne Orange Historic District and/or an overlapping, locally significant historic district (Old Towne District). Other buildings, structures, or sites have also been identified as potentially eligible for inclusion in the NRHP, CRHR, and/or the City's local register, as well as three proposed neighborhood conservation areas (City of Orange 2010a). At their November 13, 2018, meeting, the Orange City Council approved the creation of a historic district overlay zone for three 1960s-era Eichler residential tracts (Fairhaven, located at the southern tip of the City of Orange; Fairhills, located in the east area of the City of Orange; and Fairmeadow, located west of North Cambridge Street). Designation of the Eichler Historic Districts

became effective as of January 11, 2019 (City Council of the City of Orange 2018). Locations of all of the City of Orange's individual historical resources and districts, including the recently designated Eichler Districts, are shown on Figure CR-2 of the Cultural Resources and Historic Preservation Element of the City's General Plan (City of Orange 2010a, Cultural Resources and Historic Preservation Element).

Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?

Based on the previous and current cultural resources investigations of the direct and indirect APEs, no historical resources are within the direct APE. While buildings and structures that are 45 years or greater in age are within the project site's direct APE, none have been identified through any of the previous surveys or records searches to meet the criteria for listing in the NRHP or the CRHR, or as being significant to the City of Orange at the local level. A review of the history, historical associations, and architecture in 2020 confirms that the existing buildings, structures, and infrastructure features (surface parking lots, modular structures, parking garages) do not demonstrate the level of significance required for a historical resource as defined in CEQA Guidelines, Part 15064.5.

Within the 0.25-mile indirect (visual) APE are hundreds of residential, commercial, and retail facilities that were constructed between the 1950s and 2000s. Most of the commercial strip malls and small retail centers were constructed in the 1960s and 1970s, are of unremarkable architecture, have no known associations with important events or persons of note, and are not likely to yield important historical information in the future. The 1950s residences along South Crest Road, South Bedford Road, and South Alpine Road are situated on the far side of a strip mall on Main Street and, due to distance and the intervening buildings, street-level line of-sight is blocked between the residences and the Project site. In addition, the proposed new CHOC facilities would be architecturally and aesthetically compatible within the existing CHOC landscape, and none of the new or expanded buildings or structures would exceed the height of those existing, which was capped by a 2009 Development Agreement (City of Orange 2009b) at the height of the CHOC 505 Commerce Tower (13 stories) (City of Orange 2009b).

Northeast of the project site are two previously identified resources meeting the definition of a historical resource, both of which are situated at the outer edge of the 0.25-mile indirect (visual) APE (City of Orange 2020h). Neither resource is situated within any of the previously recorded historic districts, and both are well beyond line-of-sight of the project site due to the intervening distance and tall buildings and structures that block the street-level viewshed. The two identified resources are the St. Joseph Hospital and grounds (built in 1928), which is situated approximately 0.22 mile to the northeast of the project site, and the St. Joseph Nursing School and grounds (built in 1940), situated 0.23 mile to the northeast. Both resources are eligible for inclusion in the NRHP, and both are within the boundary of the City of Orange. A review of the City of Santa Ana's Historic Resource Map reveals that no historical resources are within the portion of the CHOC indirect APE that extends into that city (City of Santa Ana 2020a).

Based on the above data, the proposed Project would not result in substantial change in the significance of any built-environment historical resources within either the project site's direct APE or 0.25-mile indirect (visual) APE.

Construction Impacts

As no historical resources are within the direct APE, and no historical resources within the indirect (visual) APE would be in the line-of-sight of the proposed Project, construction of the Project would not cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5. No impacts would occur.

Operation Impacts

As no historical resources are within the direct APE, and no historical resources within the indirect (visual) APE would be in the line-of-sight of the proposed Project, Project operations would not cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

With the exception of one previously recorded prehistoric isolate situated approximately 0.3 mile from the project site, no known archaeological materials or sites have been discovered during previous ground-disturbing activities within the project boundary. The isolate was removed in 2019 at the time of discovery and is now in the possession of the Gabrieleño Band of Mission Indians-Kizh Nation (State of California, Department of Parks and Recreation 2019). Sensitivity maps for Orange County (County of Orange 2020a) show the project site as low sensitivity for prehistoric archaeological resources but indicate the project site is located within an identified historical period of significance – Farmstead Development (1870s-1920s) – when early citrus grove development was occurring adjacent to existing City of Orange streets (City of Orange 2010a, Cultural Resources and Historic Preservation Element; PAR Environmental Services Inc. 2006). Historical aerial images from as early as 1931 (County of Orange 2020a) show that the project site was planted with rows/groves of fruit trees, some newly planted, others already mature. Farmstead/ranch buildings also are seen scattered within the groves. By 1947, most of the groves were still present, but with more and larger farm buildings. By 1952,; the project site remained densely covered in trees/groves, although increased clearing and building construction was visible in the eastern half of the project site. By 1960, the project area displayed additional grading/clearing and development with only sparse grove areas remaining. A 1970 aerial image shows no groves remaining and increased development and clearing; however, the buildings present in 1970 do not reflect the footprints

of the CHOC buildings seen in 2020, indicating that they were demolished when the current CHOC configuration began between 1970 and 1980, with CHOC expansion continuing through the 1990s. The last building in the 2020 CHOC configuration (the nine-level parking garage and associated paved surface parking lot in the south/southeast corner of the South Campus) was completed in 2006.

The history of the project site as shown through the 1931-2006 aerial photographs reveals the extent to which the project site has been disturbed over time through early farming/ranching activities and operations; the planting and later removal of large groves of mature trees; and the grading, recontouring, demolition, and construction of new buildings, structures, and infrastructure features (underground utilities, roads, and other paved surfaces). Given this degree of disturbance, the potential for intact surface or shallow (within the plow/grading/trenching zone [approximately 4 feet]), subsurface prehistoric or historic archaeological resources to be discovered during Project activities is low. However, the presence of subsurface prehistoric or historic archaeological remains cannot be easily predicted and, although low in probability, artifacts and features could be present at depths greater than 4 feet. The discovery of subsurface archaeological materials would be considered a significant impact and has the potential to interrupt construction activities.

Construction Impacts

Although the potential for intact surface or subsurface prehistoric or historic archaeological resources to be discovered during construction activities is low, the presence of subsurface prehistoric or historic archaeological remains cannot be easily predicted, and artifacts and features could be present at depths greater than 4 feet. However, implementation of CUL PDF-1, CUL PDF-2, and CUL PDF 3 would preclude impacts to previously undiscovered archaeological resources. Construction of the Project would not, therefore, cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. No impacts would occur.

Operation Impacts

As Project operations would not include any disturbance of subsurface materials that could contain prehistoric or historic archaeological remains, Project operations would not cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Less than Significant with Mitigation Incorporated (Checklist).

Mitigation Measures:

None Identified.

Significance Determination After Mitigation:

Less than significant with mitigation incorporated (checklist). However, the prior cultural resources analysis was not carried forward from the 2008 Initial Study Checklist (Vista Community Planners 2008a) to the 2009 CHOC Master Plan EIR (City of Orange 2009a), and no mitigation measure was carried forward into the adopted 2009 MMRP.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

No known human remains have been discovered during previous ground-disturbing activities at the project site, and no cemeteries are in the vicinity. The closest established cemetery is Fairhaven Memorial Park in the City of Santa Ana, which is situated at 1702 Fairhaven Avenue and approximately 1.6 miles southeast of the Project site. Sensitivity maps for Orange County show the CHOC project site as low sensitivity for prehistoric resources, which would include any recorded early Native American skeletal remains and funerary items; however, the City of Orange is within the ethnographic territory of the Gabrieleño Indians of California, which encompasses present-day Los Angeles and Orange Counties, as well as several off-shore islands. Prehistorically and historically, the Gabrieleño would have utilized natural resources across the Orange County area, particularly where water sources were available. The nearest documented Gabrieleño settlements to the project site were *Hotuukngа*, which was situated on the north side of the Santa Ana River and upstream from the present-day community of Olive (approximately 5 miles to the northeast) and a small Native American camp on the north side of Santiago Creek just west of the Glassell Street crossing (situated approximately 0.8 mile to the southeast) (Brigandi 1997, as quoted in PAR Environmental Services, Inc. 2006; Greene and Curwen 2019). In addition, the project site is associated with one of the City of Orange's identified periods of historical significance. The historical period encompasses early Orange County Euro-American settlement/Farmstead Development (1870s-1920s), when the citrus grove industry was rapidly expanding adjacent to existing City of Orange streets (City of Orange 2010a, Cultural Resources and Historic Preservation Element; PAR Environmental Services Inc. 2006). Historical aerial images (County of Orange 2020h) show that the project site was already planted in groves of fruit trees by 1931 with associated small farmstead and ranch buildings. Although low in probability, given these early uses of the land by Native Americans and farmsteaders, the potential remains for unmarked Native American burials (SWCA Environmental Consultants 2006) and Euro-American individual family graves and pioneer cemeteries. Unexpected discovery of bone, grave goods, or other funerary items would be considered a significant impact and would halt construction activities.

Construction Impacts

Although low in probability, there is potential for unexpected discovery of bone, grave goods, or other funerary items associated with unmarked Native American burials and Euro-American individual family graves and pioneer cemeteries. However, implementation of CUL PDF-1, CUL PDF-2, and CUL PDF-3 would minimize the potential to encounter any previously undiscovered human remains. Construction of the Project would not, therefore, disturb human remains, including those interred outside dedicated cemeteries.

Operation Impacts

As Project operations would not include any ground-disturbing activities that could uncover human remains, Project operations would not disturb any human remains, including those interred outside dedicated cemeteries. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

6. ENERGY

	New Potentially Significant Impact	Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Environmental Setting

California's Building Energy Efficiency Standards (Energy Code) are part of the California Building Code, included in the California Code of Regulations, Title 24, Part 6. The Energy Code regulates energy usage in residential and nonresidential buildings in order to protect consumers by reducing the wasteful, uneconomic, inefficient or unnecessary consumption of energy. The State, through the California Energy Commission, updates the Energy Code every three years. Specific Energy Codes are referred to by the year they are adopted. On January 1, 2020, the 2019 Energy Code became effective. Its scope broadened to include healthcare facilities, but with a number of exceptions for licensed healthcare facilities. Non-licensed institutional buildings must comply with all applicable sections of the Energy Code and are not eligible for the healthcare facility exemptions (EnergyCodeAce 2020).

The compliance process for the Energy Code follows a similar structure to those for other building codes. Compliance for the building design is verified using the plan set and specifications by the Office of Statewide Health Planning and Development (OSHPD) Plans Examiner. Inspectors of Record (IOR) are responsible for on-site field verification during construction. Licensed healthcare facilities (per health and safety code (HSC) Section 1204 or Section 1250, defined as "Healthcare Facilities" in the Energy Code), submitting plans for a construction permit after January 1, 2020, must comply with applicable requirements in the 2019 Energy Code in order to obtain a final building permit and receive a certificate of occupancy.

The Energy Code recognizes three types of construction: new construction, additions, and alterations. All new licensed healthcare facilities and additions to them must comply with the Energy Code. An addition is defined as any change that increases both the floor area and volume of either conditioned or unconditioned space or increases the area of regulated outdoor illumination. Alterations to licensed healthcare facilities are exempt from Energy Code requirements.

From an operations perspective, Energy Code requirements are organized by occupancy types (low-rise residential, high-rise residential, nonresidential, and hotel/motel). Healthcare facilities are classified as nonresidential. Requirements for specific building components and systems (e.g., envelope, HVAC, indoor and outdoor lighting, and process systems) are supported by specific code sections.

Impact Analysis

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The Project would be subject to Energy Code requirements during the construction and operation phases.

Construction Impacts

As the Project would be subject to Energy Code requirements, construction of the Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. No impact would occur.

Operation Impacts

As the Project would be subject to Energy Code requirements, Project operations would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. No impact would occur.

Proposed Significance Determination:

No Impact/No New Impact.

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The proposed Project would be designed, constructed, and operated in compliance with applicable standards and regulations. The proposed Project would be required to comply with the State of California's Title 24 building standards. The latest building standards will incorporate the California Energy Commission's (CEC's) building energy efficiency standards which would reduce energy consumption by over half. In addition, the California Green Building Standards Code (CALGreen) establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to State environmental directives. The most recent update to CALGreen went into effect on January 1, 2020, and covers five categories: planning and design,

energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality. The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency since the Project would be required to comply with the latest energy efficiency standards, incorporate renewable energy, and comply with the applicable building code standards at the time of submittal of building permits.

Construction Impacts

Since the Project would be required to comply with the latest energy efficiency standards, incorporate renewable energy, and comply with the applicable building code standards, construction of the Project is not anticipated to conflict with or obstruct a State or local plan for renewable energy or energy efficiency. No impacts would occur.

Operation Impacts

Since the Project would be required to comply with the latest energy efficiency standards, incorporate renewable energy, and comply with the applicable building code standards, Project operations would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Project operations would be consistent with applicable State and local plans for renewable energy or energy efficiency. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

7. GEOLOGY AND SOILS

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Environmental Setting

The proposed Project site is not located within an Alquist-Priolo fault zone or on a known fault subject to rupture. The closest known active faults are approximately 11 miles to southwest (Newport-Inglewood-Rose Canyon Fault Zone) and 10.5 miles to the northeast (Whittier Fault Zone) (CGS 2020).

The project site is in a seismically active region with the potential to cause major damage during a seismic event.

The project site is not located within a known liquefaction hazard area or a known landslide hazard area and is not located on an unstable geologic unit or soil (Fractracker 2020).

Liquefaction requires specific type of soil conditions such as unconsolidated sandy soils and groundwater depth less than 40 feet and does not occur when groundwater is more than 60 feet in depth. The project elevation is approximately 150 feet above mean sea level and, based on Orange County Water District (OCWD) June 2019 groundwater elevation contour map, groundwater elevation is approximately -10 feet elevation, or about 160 feet below ground surface, precluding the potential for liquefaction occurring at the Project site (OCWD 2015).

Landslides occur in steep hilly and mountainous areas. The project site is in a relatively flat area with slopes less than 2 percent gradient. The closest hills that may be subject to landslide activity are approximately 4.5 miles to the northeast.

As described above, the project site is not located in an area potentially subject to liquefaction, landslides, or within a Alquist-Priolo known fault mapped zone. Soils at the site are mapped as a sandy loam and are not considered expansive. These are the major factors that would potentially make soils unstable in the area. As these factors are not present or are unlikely, soils in the area are considered relatively stable. The regional area that the project site is located within, Los Angeles and Santa Ana groundwater basin, is subsiding as a result of groundwater withdrawal. However, soils are considered stable although subsiding on a regional level.

The proposed Project site is in an urban area with heavily disturbed soils. The soil on the Project site is mapped as San Emigdio fine sandy loam, 0 to 2 percent slopes (USDA 2020). These soils are not identified as expansive as defined in Table 18-1-B of the Uniform Building Code (1994). The soil at the Project site consists of a layer of artificial fill, generally consisting of silty sand to sandy silt, overlaying Quarternary-age young alluvial fan deposits. In general, the alluvial soils consist of interbedded sand, silty sand, and clay with varying amounts of gravel and occasional silt beds. The expansion potential for these soils is considered low (Leighton Consulting, Inc. 2020).

Paleontological sensitivity is a measure of the potential for the discovery of significant fossils during development of an area. This potential is based on the record of discovery of fossils within a given rock unit and the extent of scientific study of the rock unit. The County of Orange General Plan has designated most of the planning area generally east of State Route 55 as an area of paleontological resource sensitivity. Sensitivity levels are predicated primarily on the underlying geological formations (City of Orange 2010b). The County's paleontological resource sensitivity map does not designate the project area as an area of paleontological resource sensitivity (County of Orange 2005).

Impact Analysis

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving…

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

The proposed Project site is not located within an Alquist-Priolo fault zone or on a known fault subject to rupture.

Construction Impacts

As the proposed Project site is not located within an Alquist-Priolo fault zone or on a known fault subject to rupture, construction of the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. No impacts would occur.

Operation Impacts

As the proposed Project site is not located within an Alquist-Priolo fault zone or on a known fault subject to rupture, Project operations would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

ii. Strong seismic ground shaking?

The Project site is in a seismically active region with the potential to cause major damage during a seismic event. State building regulations require that a geotechnical report be developed and approved by the local city or county agency. In accordance with City of Orange requirements, prior to or concurrently with submittal of the application for a building permit for any portion of the proposed Project, the project sponsor shall submit a site-specific, design-level geotechnical report. The geotechnical report will ensure that geologic hazards, including seismic shaking, are addressed as part of site design.

Construction Impacts

As site design will incorporate measures to address geologic hazards including seismic shaking, construction of the proposed Project would not directly or indirectly cause

potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. No new impacts would occur.

Operation Impacts

As site design will incorporate measures to address geologic hazards including seismic shaking, Project operations would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. No new impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

With the construction of the new buildings on the project site consistent with the California Building Code (CHOC South Tower and CHOC North Tower), the City's building requirements, and the Uniform Building Code (Seismic Zone 4) (medical office building), the proposed project would not expose people and structures to substantial adverse effects due to strong seismic ground shaking. No significant impact would be anticipated (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

iii. Seismic-related ground failure, including liquefaction?

The Project site is not located within a liquefaction hazard area.

Construction Impacts

As the Project site is not located within a liquefaction hazard area, construction of the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure. No impacts would occur.

Operations Impacts.

As the Project site is not located within a liquefaction hazard area, Project operations would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The proposed project would not expose people and structures to the project site to substantial adverse effects from seismic-related ground failure, and no impact would be anticipated (EIR).

Mitigation Measures:

None identified.

S**ignificance Determination After Mitigation:**

None made.

iv. Landslides?

The Project site is not located within a landslide hazard area.

Construction Impacts

As the Project site is not located within a landslide hazard area, construction of the proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. No impacts would occur.

Operation Impacts

As the Project site is not located within a landslide hazard area, Project operations would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. No impacts would occur.

Proposed Significance Determination:

No New Impact/No impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Ground-disturbing activities would expose soils and elevate the potential for erosion at the Project site. The Project site has some potential for wind erosion, which would be abated by application of water or other Best Management Practices (BMPs) applicable to the site. The site would be subject to California South Coast Air Quality Management District (SQAQMD) Rule 403, which requires appropriate BMPs be applied to reduce the potential for fugitive dust.

The primary potential for erosion from construction of the proposed Project site would be associated with runoff. The Project site exceeds one acre in disturbed area; as such it would require the development of a Storm Water Pollution Prevention Plan (SWPPP) under the State's National Pollutant Discharge Elimination System (NPDES) general construction permit. The Project Applicant would file a Notice of Intent with the Regional Water Quality Control Board (RWQCB) specifying that the construction activities would be in compliance with the Construction General Permit (SWRCB Order No. 99-08-DWQ, NPDES No. CAS000002). Any ground-disturbing construction activities proposed for the Project site would be outlined in a SWPPP that would be submitted to the City.

The building permitting process would include the review of proposed drainage for the site. Building plans must include positive drainage away from the facility and analyses of current storm drain intakes or projected surface runoff into local natural drainages The Orange County Water Quality Management Plan (WQMP) and Technical Guidance Document (TGD) (County of Orange 2013) have been developed to aid the County of Orange, the Orange County Flood Control District, and cities of Orange County (the Permittees) and development project proponents with addressing post-construction urban runoff and stormwater pollution from new development and significant redevelopment projects that qualify as Priority Projects. As defined in Table 7.II-2 of the North Orange County Permit Area in which the Project site is located, the Project would qualify as a priority project, as it is developing more than 5,000 square feet of parking area. Grading plans, as required, may include features to control runoff and eliminate the potential for erosion at the outflow location. The Project site would be constructed using BMPs to prevent erosion and runoff. Impacts associated with the site would be considered less than significant.

Construction Impacts

Soil erosion from ground disturbance during construction activities would be reduced by application of SCAQMD Rule 403 BMPs to control wind erosion and would include the requirements of a SWPPP required by its NPDES permit to control erosion from stormwater runoff. As the Project site would be constructed using BMPs to prevent erosion and runoff, construction of the proposed Project would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.

Operation Impacts

As Project operations would not include ground-disturbing activities that would expose soils and elevate the potential for erosion, Project operations would not result in substantial soil erosion or the loss of topsoil. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

The Project site is not located on a geologic unit or soil that is unstable or would become unstable as a result of the project site activity.

Construction Impacts

As the Project site is not located on a geologic unit or soil that is unstable or would become unstable as a result of the project site activity, construction of the proposed Project would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. No impacts would occur.

Operations Impacts

As the Project site is not located on a geologic unit or soil that is unstable or would become unstable as a result of the Project site activity, Project operations would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. No impacts would occur.

Proposed Significance Determination:

No New Impact/No impact.

Previous Significance Determination:

No impact would be anticipated (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

The soils on the Project site, San Emigdio fine sandy loam soils, are not identified as expansive as defined in Table 18-1-B of the Uniform Building Code (1994). The proposed Project site is not located in an area of known expansive soils.

Construction Impacts

As the Project site is not located in an area of known expansive soils, construction of the proposed Project would not create substantial direct or indirect risks to life or property from expansive soils. No impacts would occur.

Operations Impacts

As the Project site is not located in an area of known expansive soils, Project operations would not create substantial direct or indirect risks to life or property from expansive soils. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The 2009 EIR concludes that development of the CHOC South Tower (north of La Veta Avenue) would not result in the location of a structure on expansive soil, and no impact would be anticipated (EIR). At the time the 2009 EIR was completed, no site-specific geotechnical investigation has been conducted for the area south of La Veta Avenue, and no conclusion was made regarding expansive soils for this area. (Note: A geotechnical investigation has since been conducted for the south of La Veta Avenue Project area).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

Not applicable.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The proposed Project would not include the use of septic tanks or alternative waste water disposal systems. The proposed Project site is in an urban area and would use the existing municipal sanitary sewer system.

Construction Impacts

As the Project would be connected to the existing municipal sanitary sewer system, construction of the Project would not include the use of septic tanks or alternative wastewater disposal systems. No impacts would occur.

Operation Impacts

As the Project would be connected to the existing municipal sanitary sewer system, Project operations would not include the use of septic tanks or alternative wastewater disposal systems. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

According to the City's General Plan Program EIR, areas of the City generally east of State Route 55 are identified as areas of paleontological resource sensitivity. The project site is currently developed with an existing hospital campus and is located greater than 2 miles west of State Route 55. No unique geologic features are present on site per the General Plan Program EIR (City of Orange 2010b).

Construction Impacts

No paleontological resources are known to be present within the project vicinity, and it is unlikely that the Project would disturb paleontological resources during Project construction. Implementation of GEO PDF-1 would further preclude any potential for construction impact; therefore, the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Operation Impacts

As no paleontological resources are known to be present within the project vicinity, and Project operations would not include ground-disturbing activities that could potentially disturb paleontological resources, Project operations would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Less than Significant with Mitigation Incorporated (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

Less than significant with mitigation incorporated (Checklist). However, the prior Paleontological Resources analysis was not carried forward from the 2008 Initial Study (Vista Community

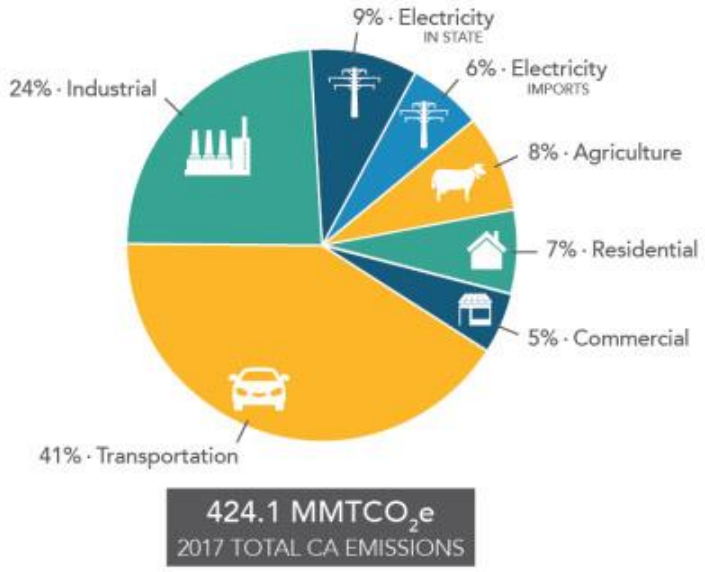
Planners 2008a) to the 2009 CHOC Master Plan EIR (City of Orange 2009a), and no mitigation measure was carried forward into the adopted 2009 MMRP.

8. GREENHOUSE GAS EMISSIONS

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

Greenhouse gases (GHGs) are components of the atmosphere that trap heat relatively near the surface of the earth and, therefore, contribute to the greenhouse effect and global warming. Most GHGs occur naturally in the atmosphere but increases in their concentration result from human activities including the burning of fossil fuels. As shown in Figure 8-1, transportation and the electricity generation are the first and third largest sources of GHGs in the State.



Source: CARB 2020a

California Emissions by Industry Sector

Figure 8-1

GHGs are defined under the California Global Warming Solutions Act of 2006 (AB 32) as carbon dioxide (CO_2), methane (CH_4), N_2O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Each GHG species has a "global warming potential" (GWP), which is defined as the ratio of degree of warming to the atmosphere that would result from the emission of one mass unit of a given GHG compared with one equivalent mass unit of CO_2 over a given period of time. As such, the GWP of CO_2 is always 1. The GWPs of CH_4 and N_2O are 21 and 310, respectively (The Climate Registry 2015. [1] "Carbon dioxide equivalent" (CO_2e) emissions are calculated by weighting each GHG compound's emissions by its GWP and then summing the products. Though HFCs, PFCs, and SF_6 are not emitted by project sources, they are discussed below per the City of Orange Community Development Department Guidance for Greenhouse Gas Emissions Analysis (City of Orange 2020a).

Carbon Dioxide (CO_2): Carbon dioxide is a clear, colorless, and odorless gas. Fossil fuel combustion is the primary human-related source of CO_2; electricity generation and transportation are first and second in terms of annual CO_2 emissions, respectively. Carbon dioxide is the basis of GWP and thus has a GWP of 1.

Methane (CH_4): Methane is a clear, colorless gas and is the main component of natural gas. Anthropogenic sources of CH_4 are fossil fuel production, biomass burning, waste management, and mobile and stationary combustion of fossil fuel. Wetlands are responsible for the majority of the natural methane emissions (Zhang et al. 2017). Within a 100-year period, CH_4 is 21 times more effective in trapping heat than is CO_2 (a GWP of 21).

Nitrous Oxide (N_2O): Nitrous oxide is a colorless, clear gas, with a slightly sweet odor. N_2O has both natural and human-related sources and is removed from the atmosphere mainly by photolysis, or breakdown by sunlight, in the stratosphere. The primary human-related sources of N_2O in the United States are agricultural soil management (synthetic nitrogen fertilization), mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production (Cavigelli et al. 2012). Nitrous oxide is also produced from a wide range of biological sources in soil and water. Within a 100 year span, N_2O is 310 times more effective in trapping heat than is CO_2 (a GWP of 310).

Hydrofluorocarbons (HFCs): Hydrofluorocarbons are commonly used as refrigerants, aerosol propellants, solvents, and fire retardants. HFCs were developed to replace ozone-depleting chemicals such as chlorofluorocarbons (CFCs). As a greenhouse gas, HFCs are 140 to 11,700 times more effective in trapping heat than is CO_2 (a GWP of 140 to 14,800) (USEPA 2017b). The major source of emissions from HFCs is their use as refrigerants in systems such as air conditioning units in vehicles and buildings. These gases are released into the atmosphere via leaks, servicing, and disposal of equipment in which they are used.

Perfluorocarbons (PFCs):

Perfluorocarbons (e.g., CF_4, C_2F_6, C_3F_8) have a GWP that ranges from 6,500 to 12,200 (USEPA 2017b). They are produced as byproducts of various aluminum production processes and used to etch intricate circuitry features on semiconductors. Under normal operating conditions, anywhere from 10 to 80 percent of the PFC gases pass through the manufacturing tool chambers unreacted and are released into the atmosphere (USEPA 2017a).

[1] These values were reported by the Intergovernmental Panel on Climate Change in 1995. Some GWP values have been updated since 1995 on the basis of improved calculation methods. The 1995 values continue to be used by international convention to maintain consistency in GHG reporting.

Sulfur Hexafluoride (SF_6): Sulfur hexafluoride has a GWP of 22,800 (USEPA 2017a). Similar to PFCs, it is used in semiconductor manufacturing. SF_6 is also used in magnesium processing, as a tracer gas for leak detection, and in electrical transmission equipment in circuit breakers. The compound is typically released into the atmosphere through aging equipment and during equipment maintenance and servicing.

Regulatory Background

State Laws and Regulatory Framework

Executive Order S-3-05 was issued by California Governor Arnold Schwarzenegger in 2005. It established statewide GHG reduction targets for California. The Executive Order required GHG emissions to be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

Assembly Bill (AB) 32, the California Global Warming Solutions Act, was signed in 2006 and formally recognized California as a substantial source of GHG emissions contributing to global warming. The bill stated that global warming is a "serious threat" to the "economic well-being, public health, natural resources, and the environment of California," including air quality. The CARB adopted the "California Greenhouse Gas Emissions Inventory" (December 2007) and its "Scoping Plan" (2008), updated in 2014 and 2017 (CARB 2017), which projects the 2020 "business as usual" GHG emissions at 596 million metric tons equivalent ($MMTCO_2e$) and outlines how the 1990 GHG emissions of 433 $MMTCO_2e$ will be achieved.

Senate Bill (SB) 32 was signed in 2016 and codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. The State passed companion legislation AB 197, which provided additional direction for developing the Scoping Plan.

Senate Bill (SB) 375, signed in September 2008, requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities' strategy (SCS) or alternative planning strategy that will prescribe land use allocation in that MPOs regional transportation plan. The intent is to align regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. The SCAG is responsible for the adoption of the SCS for the region and it is a required element of the Regional Transportation Plan (RTP). Implementation of proactive land use planning measures and improvements to the transportation network prescribed in the 2016-2040 RTP/SCS will result in a 21 percent reduction by 2040 when compared with 2005 levels (SCAG 2016).

Senate Bill (SB) 97, signed in 2007 added Section 21083.05 to the Public Resources Code and directed the California Office of Planning and Research to draft State CEQA Guidelines (CEQA Guidelines) for GHG emissions analysis and mitigation. Effective March 18, 2020, the CEQA Guidelines provide guidance for GHG emissions calculations to determine if a project's contribution is "cumulatively considerable"; a determination of impact significance compared to the existing environment; exceedance of a "threshold of significance"; and compliant with State, regional, or local plans to reduce GHG emissions. Options for mitigating impacts include existing measures in plans, ordinances, or regulations, or project features to reduce emissions.

Local Guidance

GHG analysis is required to be included in CEQA documents for all non-exempt projects for which the City of Orange is the lead agency. In addition to defining "greenhouse gases" and providing a description of the seven major GHGs and their major sources, project emissions should be quantified and the cumulative effects of those emissions should also be discussed.

Determination of Significance

The City of Orange has not adopted a quantitative threshold of significance for GHG. Nonetheless, as a CEQA lead agency, the City desires to have a consistent GHG analysis methodology in its CEQA documents. The City Guidance for Greenhouse Gas Emissions Analysis adopts a 5-tiered approach to determining project significance (City of Orange 2020a). Four of these tiers entail evaluating whether or not a project qualifies for a CEQA exemptions (Tier 1), determining whether a project is consistent with a local GHG reduction plan (Tier 2), exploring optional methods for GHG reductions to minimize or eliminate project significance (Tier 4), or determining mitigation offsets to achieve a target significance threshold (Tier 5).

The City accepts GHG analyses that use the Tier 3 quantitative thresholds recommended in the SCAQMD's Interim Thresholds document for commercial, residential, mixed use, and industrial development projects, as follows.

- Industrial Projects - 10,000 $MTCO_2e$ per year.
- Residential, Commercial, and Mixed-Use Projects (including industrial parks, warehouses, etc.) - 3,000 $MTCO_2e$ per year. This is generally equivalent to an approximately 70-unit single-family residential development.

The proposed Project would introduce expanded hospital and parking facilities to an existing site; therefore, the 3,000 $MTCO_2e$ per year threshold for residential, commercial, and mixed-use projects is the appropriate threshold for determining project significance.

Impact Analysis

Methodology

Consistent with City guidance for non-exempt projects, construction and operational GHG emissions for the proposed Project were estimated using the CalEEMod v. 2016.3.2. Based on the current project description, the general inputs listed in Table 3-5 were entered in the Land Use and Construction/Demolition tabs. Additional inputs on the Project Description tab of the model associated with the electric utility service provider determine GHG intensity factors for CO_2, CH_4 and N_2O. In the City of Orange, Southern California Edison (SCE) was selected as the service provider with the following intensity factors that are used in the calculation of energy use for the proposed Project during construction and operation phases.

- CO_2 Intensity Factor: 702.44 lb/MegaWatt-hr (MWh)
- CH_4 Intensity Factor: 0.029 lb/MWh
- N_20 Intensity Factor: 0.006 lb/MWh

Estimated Emissions – Construction and Operational

The results of the CalEEMod run using the inputs listed in Table 3-5 and the SCE intensity factors for CO_2, CH_4 and N_2O listed above are shown in Table 8-1. Model default values were assumed for construction equipment type and number, schedule and vehicle miles traveled for on-road construction vehicles based on the inputs in Table 3-5. Similarly, model default values were assumed for operational inputs including commuting and patient traffic, use of architectural coatings (including paint), and landscaping activities based on the Table 3-5 inputs.

Table 8-1. Operational and Construction GHG Emissions – Proposed Project

Net Maximum Construction Emissions (MT/year) [1]						
	Biogenic CO_2	Non-Biogenic CO_2	Total CO_2	CH_4 [2]	N_2O [3]	CO_2e
Threshold	--	--	--	--	--	3,000
Unmitigated	0.00	586.65	586.65	0.092	0.00	588.95
Mitigated	0.00	586.65	586.65	0.092	0.00	588.95
Net Maximum Operational Emissions (MT/year)						
	Biogenic CO_2	Non-Biogenic CO_2	Total CO_2	CH_4[2]	N_2O[3]	CO_2e
Threshold	--	--	--	--	--	3,000
Unmitigated Emissions (MT/year)						
	Biogenic CO_2	Non-Biogenic CO_2	Total CO_2	CH_4[2]	N_2O[3]	CO_2e
Direct Added	0.00	10,439.79	10,439.79	0.43	0.04	10,277.71
Direct Removed	(0.00)	(73.21)	(73.21)	(0.003)	(0.001)	(73.34)
Direct Net	0.00	10,365.87	10,365.87	0.427	0.039	*10,204.37 +19.63* [4] *10.224.00*
	Biogenic CO_2	Non-Biogenic CO_2	Total CO_2	CH_4[2]	N_2O[3]	CO_2e
Indirect Added	825.88	223.92	1,049.80	49.46	0.038	2,482.45
Indirect Removed	(4.46)	(1.21)	(5.67)	(0.27)	(0.0002)	(12.42)
Indirect Net	821.42	222.71	1,044.13	49.19	0.038	2,470.03
Mitigated Emissions (MT/year)						
	Biogenic CO_2	Non-Biogenic CO_2	Total CO_2	CH_4[2]	N_2O[3]	CO2e
Direct Added	0.00	9,811.03	9,811.03	0.40	0.04	9,833.26
Direct Removed	(0.00)	(68.26)	(68.26)	(0.003)	(0.003)	(68.38)
Direct Net	0.00	9,742.77	9,742.77	0.40	0.04	*9,764.88 +19.63*[4] *9,784.51*
	Biogenic CO_2	Non-Biogenic CO_2	Total CO_2	CH_4[2]	N_2O[3]	CO2e
Indirect Added	825.88	223.92	1,049.80	49.46	0.04	2297.51
Indirect Removed	(4.46)	(1.21)	(5.67)	(0.27)	(0.0002)	(12.42)
Indirect Net	821.42	222.71	1,044.13	49.19	0.04	2,285.09

Notes:

1. Represents year with the highest emissions over the construction period.
2. Listed values multiplied by GWP of 25 for CH_4.
3. Listed values multiplied by GWP of 310 for N_20.
4. 30-Year Amortized Construction Emissions per SCAQMD Guidance.

Italicized values exceed SCAQMD/City of Orange annual Tier 3 threshold.

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Per the City of Orange GHG analysis guidance, direct and indirect emissions were quantified for the proposed Project. Direct emissions include construction emissions and the portion of operational emissions associated with energy use, mobile sources, and the proposed Project's size (footprint). Indirect emissions include the portion of operational emissions associated with water supply and transport (including wastewater treatment) because water from local or nearby groundwater basins, nearby surface water and gravity-dominated systems have smaller energy-intensity factors than non-local water sources.

Per SCAQMD and City of Orange guidance, construction emissions were amortized over a 30-year period and added to the estimate of direct operational emissions to determine the net estimated annual direct operational GHG emissions over the foreseeable life of the proposed Project.

Construction Impacts

As shown in Table 8-1, net estimated annual direct emissions from construction of the proposed Project would not exceed the SCAQMD Tier 3 threshold of 3,000 MT CO_2e per year adopted by the City of Orange for residential, commercial, and mixed-use projects. Construction of the Project would not generate direct GHG emissions that may conflict with the CARB Scoping Plan for achieving California's 2030 GHG target of 40 percent emissions reductions below 1990 levels. Construction of the Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No impacts would occur.

Operation Impacts

As shown in Table 8-1, operation and maintenance of the proposed Project would generate both direct and indirect GHG emissions that exceed the SCAQMD 3,000 MT CO_2e per year Tier 3 threshold adopted by the City of Orange for residential, commercial, and mixed-use projects; therefore, Project operations would generate direct GHG emissions that may have a significant impact on the environment. Although this specific GHG emission question was not previously addressed, an analysis of GHG emission was included in the 2009 CHOC Master Plan EIR (City of Orange 2009a). Estimated GHG emissions from operation of the proposed Project are below the annual GHG emissions estimated in the 2009 EIR. No new impacts would occur.

Proposed Significance Determination:

No New Impact / No Impact

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As noted, the City has not drafted or adopted a Climate Action Plan and no other regional GHG reduction plans have yet been adopted to date.

California's 2017 Climate Change Scoping Plan is an applicable Statewide GHG reduction plan (CARB 2017); however, implementation of its GHG reduction measures may not specifically apply to or mitigate a local project's GHG emissions, as required by CEQA. The CARB Cap-and-Trade Program is only applicable to electricity generators and large industrial facilities emitting 25,000 $MTCO_2e$ or more annually. Therefore, it is largely not currently feasible to mitigate GHG impacts under CEQA by demonstrating compliance with an existing GHG reduction plan or through offsets for the proposed Project.

Construction Impacts

As shown in Table 8-1, net estimated annual direct emissions from construction of the proposed Project would not exceed the SCAQMD Tier 3 threshold of 3,000 MT CO_2e per year Tier 3 adopted by the City of Orange for residential, commercial, and mixed-use projects. Construction of the Project would not generate direct GHG emissions that may conflict with the CARB Scoping Plan for achieving California's 2030 GHG target of 40 percent emissions reductions below 1990 levels. Construction of the Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No impacts would occur.

Operation Impacts

As shown in Table 8-1, net estimated annual direct emissions from operation and maintenance of the proposed Project would exceed the SCAQMD Tier 3 threshold of 3,000 MT CO_2e per year Tier 3 adopted by the City of Orange for residential, commercial, and mixed-use projects. Similarly, net estimated annual indirect emissions from operation and maintenance would exceed this annual threshold, and therefore would conflict with the CARB Scoping Plan for achieving California's 2030 GHG target of 40 percent emissions reductions below 1990 levels. Project operations would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Although this specific GHG emission question was not previously addressed, an analysis of GHG emission was included in the 2009 CHOC Master Plan EIR (City of Orange 2009a). Estimated GHG emissions from operation of the proposed Project are below the annual GHG emissions estimated in the 2009 EIR. No new impacts would occur.

Proposed Significance Determination:

No New Impact / No Impact

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

9. HAZARDS AND HAZARDOUS MATERIALS

	New Potentially Significant Impact	Mitigation is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Environmental Setting

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (e.g., household cleaners, fuels, industrial solvents, paints, pesticides, etc.). Accidental release of hazardous materials can occur from a variety of causes, including vehicle accidents, inadvertent spills, or other industrial incidents.

Regulatory Setting

Numerous laws, ordinances, regulations, and statutes are in place to reduce the danger posed by hazards and hazardous materials. These include:

Federal

- Resource Conservation and Recovery Act (RCRA) and amendments
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Superfund Amendments and Reauthorization Act (SARA)
- Emergency Planning and Community Right to Know Act (EPCRA)
- Toxic Substances Control Act (TSCA)
- Title 40, CFR Part 68, Accidental Release Prevention Program
- Hazardous Materials Transportation Act and Hazardous Materials Transportation Uniform Safety Act (49 CFR Parts 172, 173, 177, 397)
- Federal Aviation Administration (FAA) regulations (15 CFR 77)
- Occupational Health Regulations for Lead Exposure (29 CFR 1926)
- National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300)

State/Local

- California Accidental Release Prevention Program (California Health and Safety Code Chapter 6.95)
- California Hazardous Materials Release Response Plans and Inventory Law (Business Plan Act)
- Certified Unified Program (Senate Bill 1082)
- California Underground Storage Tank Regulations (Title 23 California Code of Regulations Chapter 16)
- Medical Waste Management Act (California Health and Safety Code §§117600-118360)
- Hazardous Waste Control (California Health and Safety Code Chapter 6.5)
- Hazardous Materials Transportation (California Vehicle Code §31303)
- Worker and Workplace Materials Safety - Injury and Illness Prevention Plans, Chemical Hygiene Plans, Hazard Communication Standards
- Management of Asbestos Containing Material (California Health and Safety Code Section 17920.10)
- Management of Lead-based Paint (California Health and Safety Code §105255)
- Hazardous Materials (Cortese List) Sites (California Government Code §65962.5)
- Airport Land Use Commission (Public Utilities Code §21670)

Hazardous materials are regulated/administered in the local area by:

- the United States Environmental Protection Agency (USEPA), which oversees the Resource Conservation and Recovery Act (RCRA) and partners with states to govern hazardous wastes, underground storage tanks, and solid wastes
- the California Environmental Protection Agency (CAL/EPA), which is a cabinet-level agency with purview over the State's unified hazardous waste and hazardous materials management programs
- the California Department of Toxic Substances Control (DTSC), which is a department within CAL/EPA responsible for management of hazardous waste, cleanup of contamination sites, and implementing regulation to control and reduce hazardous waste produced in California
- the County of Orange Health Care Agency, Environmental Health Division Fire Department, which is designated by the State of California Secretary for Environmental Protection as the Certified Unified Program Agency (CUPA) for the County of Orange and responsible for local coordination of aboveground storage tank, California Accidental Release, and Hazardous Waste programs
- the City of Orange Fire Department which, under the CUPA as a participating agency, is responsible for administering hazardous materials release response plans and inventories (business plans), hazardous materials disclosure, and underground storage tanks.
- the CHOC-maintained Hazardous Materials and Waste Management Plan (June 2020), which describes the risk and daily management activities CHOC implements to achieve the lowest potential for an adverse impact on the safety and health of patients, associates, and other people coming to the CHOC facilities. The plan is evaluated annually.

Other agencies associated with management of hazards include federal Occupation Safety and Health Administration (OSHA) and the California Division of Occupational Safety and Health (CAL/OSHA), which are both responsible for workplace safety, and the FAA which regulates tall structure construction to avoid creation of hazards to navigable airspace.

The Project is sited approximated 0.3 mile south of West Orange Elementary School.

Pursuant to California Government Code §65962.5, California maintains a list of hazardous materials sites (known as the Cortese List). The CHOC campus is not on that list.

The County of Orange has an Airport Land Use Commission (ALUC) consisting of seven members. The ALUC reviews land use proposals near civilian and military airports and implements Airport Environs Land Use Plans (AELUPs) which have been developed within Orange County for John Wayne Airport (JWA), Fullerton Municipal Airport (FMA), and Joint Forces Training Base Los Alamitos, as well as for local heliports. The CHOC campus does not lie within the planning area for any of the three referenced airports (Orange County ALUC 2008a).

The ALUC also has developed an AELUP for heliports in Orange County (Orange County ALUC 2008a). Three nearby heliports, all located within the City of Orange, include:

- Children's Hospital of Orange County (FAA Identifier 4CA5), located at the CHOC campus
- North Net Fire Training Center (FAA Identifier (CL45), located about 1.25 miles northwest of the CHOC campus

- UCI Medical Center (FAA Identifier (1CL4), located about 1.5 miles west-northwest of the CHOC campus

Based on a review of the Orange County ALUC website and a commercial website (Toll Free Airline 2020), the CHOC campus does not lie within the vicinity of a private airstrip or airport.

Based on review of the California Fire Hazard Severity Zone Viewer (State of California 2020b) the CHOC campus is not located within a high or very high severity fire zone.

The City of Orange maintains an Emergency Operations Plan prepared in accordance with the California Office of Emergency Services guidelines for multi-hazard functional planning. The plan concentrates on specific agency response for any type of disaster (City of Orange 2010a, Public Safety Element, updated December 2015). The City's Emergency Operations Plan does not indicate evacuation routes for emergency situations; however, all arterial streets are considered to be evacuation routes. The routes of escape from disaster-stricken areas will depend on the scale and scope of the disaster (CHOC Evacuation Plan, September 2017).

CHOC maintains an emergency plan that was not available for review for this analysis.

Impact Analysis

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Project would not add any new or significantly increased hazardous materials requiring transport, use, or disposal. Management of hazardous substances would be conducted in accordance with applicable regulations.

Construction Impacts

Demolition of medical facilities could generate hazardous waste associated with substances used in prior building construction or facility operations. For hospitals built before 1978, these substances could typically include asbestos, lead-based paint, polychlorinated biphenyls, and mercury. To identify potential environmental concerns, a Phase 1 Environmental Site Assessment would be performed prior to project approval. If warranted by the results of the Phase 1 report, Phase 2 sampling and lab analysis would occur prior to construction to sample specific media (e.g., paints, glues, mastic, floor tile, insulation, drainpipes, etc.) identified during the Phase 1 for further study. Management of hazardous substances would be conducted in accordance with applicable regulations. Demolition activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and would not result in new impacts.

New construction activities would employ use of hazardous materials such as gasoline, diesel fuel, or solvents that could have the potential to result in release of small quantities of hazardous substances to the environment. Demolition and construction activities associated with the Project would occur in compliance with federal and State requirements governing transport, use, and disposal of hazardous materials. Construction activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and would not result in new impacts.

Operation Impacts

Once operational, the Project would result in the routine transport, use, and disposal of potentially hazardous materials and wastes. A list of all hazardous substances used during operation is maintained by CHOC (CHOC Hazardous Materials and Waste Management Plan, June 2020). The Hospital Safety Committee updates the list annually, and the list is submitted to the City of Orange Fire Department. Any of the proposed changes are to be incorporated in the current hazardous materials management plans and would operate in full compliance with existing, local, State, and federal regulations. Management of hazardous wastes, including medical wastes, would continue to be conducted in accordance with CHOC guidelines developed to maintain compliance with local, State, and federal regulations. As management of hazardous materials and wastes during operations would be compliant with applicable regulations, this activity would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and would not result in new impacts.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction Impacts

As discussed in this section in the response to a), activities during construction and operations of the Project would be managed in accordance with applicable regulations. Prior to any demolition activity, locations of existing hazardous substances would be narrowed during Phase 1 and (if applicable) Phase 2 environmental site assessment efforts; and any hazardous substances discovered during this process would be managed to reduce or eliminate potential release to the environment. Demolition and construction activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment and would not result in new impacts.

Operation Impacts

Once operational, the Project would result in the routine transport, use, and disposal of potentially hazardous materials and wastes. A list of all hazardous substances used during operation is maintained by CHOC. The Hospital Safety Committee updates the list annually and

submits it to the City of Orange Fire Department. Any of the proposed changes are to be incorporated into the current hazardous materials management plans and would operate in full compliance with existing, local, State, and federal regulations. The operational phase of the Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment and would not result in new impacts.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

During demolition, potential emissions of asbestos-containing materials and lead-based paint could occur. While these would be very localized, this would be considered a significant impact (EIR).

Mitigation Measures:

MM 4.5-1 Prior to any demolition or remodeling of the existing buildings, an asbestos survey report shall be prepared to identify asbestos-containing materials and the appropriate process for its removal by a licensed asbestos abatement contractor under the guidance of the South Coast Air Quality Management District (SCAQMD) and California Division of Occupational Safety and Health (Cal/OSHA).

MM 4.5-2 Prior to any demolition or remodeling of the existing buildings, testing of paint samples shall be conducted to identify paint that contains lead in concentrations that exceed the Cal/OSHA Lead Concentration Standard.

Significance Determination After Mitigation:

With mitigation, asbestos and lead-based paint impacts would be reduced to less than significant level (EIR).

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The proposed Project is not located within one-quarter mile of a school. The nearest school, West Orange Elementary School, is located approximately 0.3 mile to the north of the Project.

Construction Impacts

As the nearest school is approximately 0.3 mile from the Project site, construction of the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur.

Operation Impacts

As the nearest school is approximately 0.3 mile from the Project site, Project operations would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances,

or waste within one-quarter mile of an existing or proposed school. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

During demolition, potential emissions of asbestos-containing materials and lead-based paint could occur. While these would be very localized, this would be considered a significant impact (EIR).

Mitigation Measures:

MM 4.5-1 Prior to any demolition or remodeling of the existing buildings, an asbestos survey report shall be prepared to identify asbestos-containing materials and the appropriate process for its removal by a licensed asbestos abatement contractor under the guidance of the South Coast Air Quality Management District (SCAQMD) and California Division of Occupational Safety and Health (Cal/OSHA).

MM 4.5-2 Prior to any demolition or remodeling of the existing buildings, testing of paint samples shall be conducted to identify paint that contains lead in concentrations that exceed the Cal/OSHA Lead Concentration Standard.

Significance Determination After Mitigation:

With mitigation, asbestos and lead-based paint impacts would be reduced to less than significant level (EIR).

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

The project site is not on the list of hazardous materials waste and substances sites compiled in accordance with the requirements of Section 65962.5. A search of State Water Resources Control Board along with the remaining databases on Cal/EPA Cortese List Data Resources was conducted on August 20, 2020.

Construction Impacts

The Project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; and, therefore, construction would not create a significant hazard to the public or the environment. No impacts would occur.

Operation Impacts

The Project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; and, therefore, Project operations would not create a significant hazard to the public or the environment. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Project is collocated with the Children's Hospital of Orange County Heliport (FAA Identifier 4CA5) and is within 2 miles of two other heliports managed under the Orange County ALUC's Heliport AELUP. While the Project would not be expected to impact operations at the North Net Fire Training Center (FAA Identifier (CL45), located about 1.25 miles northwest of the CHOC campus or the UCI Medical Center (FAA Identifier (1CL4), located about 1.5 miles west-northwest of the CHOC campus, the Project has a potential to disrupt operations at CHOC Heliport.

Although not identified specifically for the CHOC Heliport and thus not reviewed for this analysis, the Heliport AELUP calls for development of a Helipad Protection Zone (HPZ), due to the severity potential of accidents associated with helicopter use near populous areas. In the HPZ, no buildings intended for human habitation are permitted. Further, because of the proximity to aeronautical operations, uses in the vicinity of HPZs must not attract birds; emit excessive glare or light; or produce or cause steam, smoke, dust, or electronic interference that interfere with, or endanger, aeronautical operations.

The Heliport AELUP also addresses height restrictions of adjacent buildings, noting:

> *"Once a heliport is established, the facility owner, local land use jurisdictions, and ALUCs should take whatever actions that are in their respective authorities to preserve compatible uses in the Helipad Protection Zones and, even more critically, to prevent obstructions to the approach/departure surfaces."*

Construction Impacts

Construction activities that could impact heliport operations could include higher-floor superstructure construction on new buildings, attraction of birds, and potential creation of temporary dust or glare hazards. Without coordination between CHOC, the City of Orange, and the ALUC, construction of the Project could be inconsistent with requirements specified in the Heliport AELUP. Implementation of HAZ PDF-1 would preclude the Project being constructed built in a manner that would result in a safety hazard or excessive noise for people residing or working in the project area. No impact would occur.

Operation Impacts

Operations of the Project could impact the CHOC Heliport. Construction of new buildings adjacent to the heliport may create heliport obstructions, attract birds, and potentially create glare or electronic interference that impact aeronautical operations. Without coordination between CHOC, the City of Orange, and the ALUC, Project operations could be inconsistent with requirements specified in the Heliport AELUP. Implementation of HAZ PDF-1 would preclude the Project being operated in a manner that would result in a safety hazard or excessive noise for people residing or working in the project area. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Construction Impacts

Construction activities could require temporary short-term lane closures on Main Street and La Veta Avenue, resulting in temporary short-term impacts to traffic in the area. The City's Emergency Operations Plan considers all arterial streets to be evacuation routes. With implementation of a construction Transportation Management Plan (TMP), significant impact to fire, police, and emergency medical response or to public evacuation routes during construction would be avoided. No impacts would occur.

Operation Impacts

Once operational, the Project could result in long-term degradation in fire, police, and emergency medical response or to public evacuation routes if a change to level of service (LOS) on adjacent roads occurs. An LOS analysis was conducted for the Project. (RESULTS) help to determine whether any adjustments to the City's Emergency Operations Plan or CHOC's emergency plan are warranted (Revise as applicable). No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No significant impact (construction and operations) (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The proposed Project is not located within a high or very high fire hazard severity zone. The site is located in an urban area and is not in or near any areas subject to wildland fires and would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

Construction Impacts

As the proposed Project is not located within a high or very high fire hazard severity zone and is not in or near any areas subject to wildland fires, construction of the Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

Operation Impacts

As the proposed Project is not located within a high or very high fire hazard severity zone and is not in or near any areas subject to wildland fires, Project operations would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

10. HYDROLOGY AND WATER QUALITY

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐
f) Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters from construction activities or post-construction activities?	☐	☐	☒	☐

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
g) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?	☐	☐	☒	☐
h) Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?	☐	☐	☒	☐

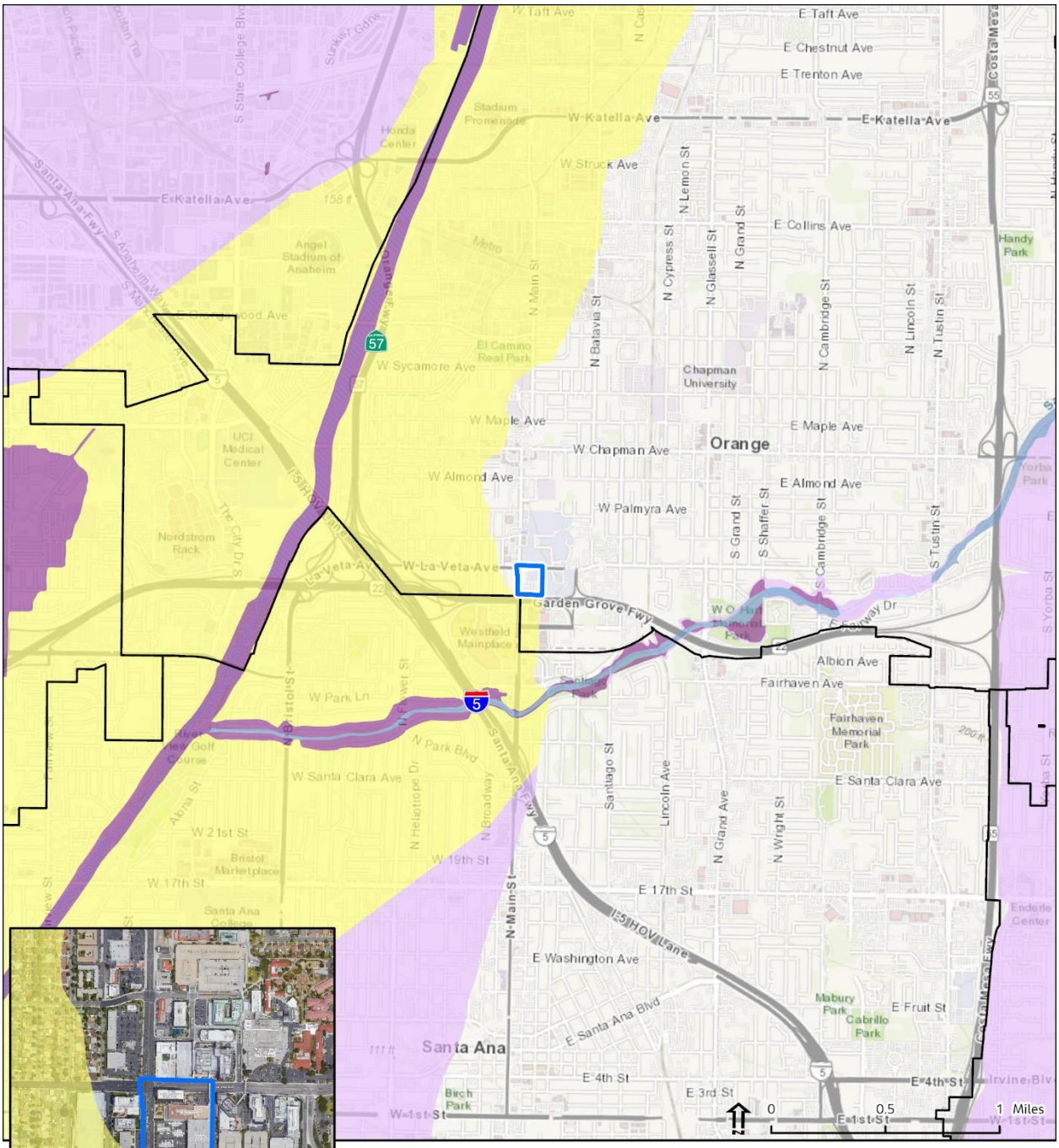
Environmental Setting

State Water Resources Control Board (SWRCB) and Santa Ana RWQCB regulate water resources within the City of Orange, Orange County. Federal and State laws determined applicable for the proposed Project include Sections 303, 401, 402, and 404 of the Clean Water Act and the State Porter-Cologne Water Quality Control Act. Under the Clean Water Act, the water quality objectives to protect those beneficial uses are referred to as water quality standards. Water quality standards are published in the Basin Plans adopted by each Regional Water Board.

The proposed Project is located within the Coastal Plain of Orange County groundwater basin. The Orange County Water District (OCWD) imports water from the Santa Ana River, Colorado River, and the Sacramento-San Joaquin River Delta. To offset groundwater extraction, OCWD launched the Groundwater Replenishment System (GWRS; OCWD 2020). GRWS applies a purification process to treated wastewater to supply the seawater barrier which is pumped into recharge basins to percolate into the Orange County Groundwater Basin and supplements Orange County drinking water supplies.

The proposed Project is located within a developed urban area with existing storm drainage systems (OC Public Works 2020a). No streams or rivers are on or adjacent to the site.

An important part of the National Flood Insurance Program (NFIP) provides flood mapping and flood insurance requirements. FEMA's flood mapping program is called Risk Mapping, Assessment, and Planning, or Risk Map (FEMA 2020). Flood hazards are identified on the Flood Insurance Rate Map and are identified as Special Flood Hazard Areas. The areas of minimal flood hazard outside the Special Flood Hazard Area (SFHA) and higher than the elevation of the 0.2 percent annual chance flood are labeled as Zone X (unshaded). As shown in Figure 10-1, the FEMA Flood Map Service center has designated the majority of the project site to be of minimal flood hazard (Zone X unshaded).



Water Resources Control Board: Santa Ana Groundwater Basin: Coastal Plain of Orange County

- Proposed Project Footprint
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Regulatory Floodway
- Area with Reduced Risk Due to Levee

Children's Hospital of Orange County

Hydrology Map

Data Sources:
Orange County 2021
CA Department of Water Resources 2021
Federal Emergency Management Agency 2021
ESRI Basemap 2021

Figure 10-1

California Official Tsunami Maps are developed for all populated areas at risk to tsunamis (California Department of Conservation 2009).

Tsunami inundation maps cover most of the populated areas along the state's coastline. The project site is not within a mapped tsunami inundation area. Seismic waves from an earthquake pass through an area forming what is known as seismic seiches. Seismic seiches include standing waves set up on rivers, reservoirs, ponds, and lakes. No water features where seiches could occur are on or adjacent to the project site.

The model Water Quality Management Plan (WQMP) was developed to aid Orange County, Orange County Flood Control District, and the Cities of Orange County and development projects to address post-construction urban runoff and stormwater pollution from new development and significant redevelopment projects (Thomsen Engineering, Inc. 2008; OC Public Works 2020b). A WQMP's goal is to minimize the adverse effects of urbanization on site hydrology, runoff flow rates, and pollutant loads. The WQMP is required by the NPDES permit held by the Permittee. The 2008 Preliminary Water Quality Management Plan (Thomsen Engineering, Inc. 2008) for CHOC Master Plan includes the drainage areas within the proposed Project boundaries. The Preliminary WQMP states that at the time of detailed planning and design, a new WQMP, in compliance with current codes, will be submitted.

Applicants whose projects disturb one or more acres of soil, or whose project disturbs less than one acre but is part of a larger common plan of development that disturbs in total more than one acre, are subject to the General Permit for Dischargers of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (SWRCB 2020). The General Permit requires that stormwater discharges and authorized non-stormwater discharges may not contain pollutants that cause an exceedance of any applicable water quality standards. The Construction General Permit requires the development of a SWPPP. The project-specific SWPPP includes non-stormwater controls and waste and materials management. These BMPs are based on the list of construction activities with a potential for non-stormwater discharges. Materials management control practices consist of implementing procedural and structural BMPs for handling, storing, and using construction materials to prevent the release of those materials into stormwater discharges. The WQMP includes the combination of non-structural and structural BMPs to control predictable pollutants from stormwater runoff.

Santa Ana River Reach 2 contains these beneficial uses: Agricultural Supply, Groundwater Recharge, Rare, Threatened or Endangered Species, Water Contact Recreation, Non-contact Water Recreation, Warm Freshwater Habitat, and Wildlife Habitat (SWRCB 1995). Agricultural Supply (AGR) waters are used for farming and may include irrigation, stock watering and support of vegetation for range grazing. Groundwater Recharge (GWR) waters are used for natural or artificial recharge of groundwater. This may provide for, but is not limited to, future extraction, maintaining water quality, or halting saltwater intrusion into freshwater aquifers. Rare, Threatened, or Endangered Species (RARE) waters support high quality aquatic habitats necessary for the survival of plant or animal species designated under State or federal law as rare, threatened, or endangered. Water Contact Recreation (REC1) waters are used for recreational activities involving body contact with water. Non Contact Water Recreating (REC2) waters are used for recreational activities involving proximity to water but not normally involving body contact with water. Warm Freshwater Habitat (WARM) waters support warmwater ecosystems that may include preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife. Wild Habitat (WILD) waters support wildlife habitats that may include the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.

With a site-specific SWPPP and an amended WQMP, several BMPs are to be in place temporarily or permanently to reduce and/or eliminate introduction of polluted stormwater into the Santa Ana River.

Water quality standards consist of designated beneficial uses or surface waters (SWRCB 2020). If stormwater runoff from construction sites does contain pollutants, there may be a risk of those pollutants entering surface waters and causing an exceedance of water quality standards. Under the Clean Water Act, the beneficial uses and the water quality objectives to protect those beneficial uses are referred to as water quality standards. Water quality standards are published in the Basin Plans adopted by each Regional Water Quality Control Board (RWQCB). The Project indirectly discharges to Santa Ana River Reach 2, which is considered a Low Risk Receiving Water Body. A Low Receiving Water Risk Factor is defined as a water body that is not a 303(d)-listed waterbody impaired by sediment or does not include the beneficial uses of SPAWN & COLD & MIGRATORY.

Impact Analysis

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The Project would adhere to any water quality standards set forth by the Santa Ana RWQCB. Prior to construction, The Project Applicant would file a Notice of Intent with the RWQCB specifying that the construction activities would comply with the Construction General Permit (SWRCB Order No. 99-08-DWQ, NPDES No. CAS000002). Any ground-disturbing construction activities proposed for the project site would be outlined in a SWPPP that would be submitted to the City. The SWPPP would implement BMPs throughout and would reduce the sediment-laden stormwater runoff as well as non-stormwater pollutants that may enter stormwater discharges. The proposed Project would also require a revision to the existing WQMP or development of a new WQMP. The WQMP would include structural and non-structural BMPs to manage the quantity and improve the quality of stormwater runoff during Project operations. The proposed Project would be constructed and operated in compliance with the requirements of the SWPPP and the WQMP to avoid violating applicable water quality standards.

Construction Impacts

Impacts to water quality standards during construction are reduced with the implementation of a site-specific SWPPP. The SWPPP will set forth BMPs that include sediment and erosion control, waste management, and non-stormwater measures. Erosion and sediment controls are required by the General Permit to provide effective reduction or elimination of sediment-related pollutants in stormwater discharges from the project site. Non-stormwater discharges are prohibited unless coverage under a separate NPDES permit has been obtained for the discharge. The selection for non-stormwater control BMPs is based on the list of construction activities with a potential for non-stormwater discharges. Materials management control practices consist of implementing procedural and structural BMPs for handling and storing construction materials to prevent their release into stormwater discharges. Construction of the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. No impact would occur.

Operation Impacts

Post-construction BMPs listed in the site-specific SWPPP as well as the structural and non-structural BMPs listed in the WQMP are designed to reduce or eliminate pollutant discharges from the site after construction is completed. Project operations would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The development of the proposed Project would not violate any water quality standards or waste discharge requirements from stormwater runoff from construction or post-construction activities, and no significant impact would occur (EIR).

The development of the proposed Project would not substantially degrade water quality, and no significant impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?

The project site is a developed urban area that is largely covered by impervious surfaces such as buildings and parking lots that limit the potential for groundwater recharge. The project site does not contain any groundwater wells, and no wells would be proposed as part of the Project. Project water needs would be met by the existing City of Orange water distribution system. The Project would not significantly change the amount of impervious surfaces that could affect groundwater recharge. The proposed Project would include approved post-construction and structural BMPs that allow for infiltration of runoff into the groundwater These BMPs are selected based on their ability to adhere to the RWQCB water quality standards. One of the beneficial uses that these water quality standards protect is groundwater recharge waters.

Construction Impacts

As the Project site is largely covered by impermeable surfaces that limit potential for groundwater recharge and the Project does not include any groundwater wells, construction of the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that it may impede sustainable groundwater management of the basin. No impact would occur.

Operation Impacts

As the Project site is largely covered by impermeable surfaces that limit potential for groundwater recharge and the Project does not include any groundwater wells, Project operations would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that it may impede sustainable groundwater management of the basin. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

c) 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 through the addition of impervious surfaces, in a manner which would:

The project site does not contain any surface waters such as a stream or river. The project site is in a developed urban area that is largely covered by impervious surfaces and is serviced by a stormwater drainage system. Some modifications to the existing stormwater drainage features on the site may need to be made to serve the changed site layout, but these would not substantially change the drainage pattern, and the proposed Project would not significantly change the amount of impervious surfaces on the site. Therefore, it would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces.

i. Result in substantial erosion or siltation on- or off site?

The proposed Project would require development of a site-specific SWPPP and a WQMP. The SWPPP implements BMPs throughout and would reduce the sediment-laden stormwater runoff as well as non-stormwater pollutants that may enter stormwater discharges. The WQMP would include structural and non-structural BMPs to manage the quantity and improve the quality of stormwater runoff during operation.

Construction Impacts

As the Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces, construction activities would not result in substantial erosion or siltation on or off site as a result of substantially altered drainage patterns. No impact would occur.

Operation Impacts

As the Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces, Project operations would not result in substantial erosion or siltation on or off site as a result of substantially altered drainage patterns. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

ii. Increase the rate or amount of surface runoff in a manner which would result in flooding on- or off site?

The proposed Project would require development of a site-specific SWPPP and a WQMP. The SWPPP implements BMPs throughout and would reduce the rate and amount of surface water runoff during construction. The WQMP would include structural and non-structural BMPs to manage the quantity of stormwater runoff during operation.

Construction Impacts

As the Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces, and BMPs would reduce the rate and amount of surface runoff and would reduce the sediment-laden stormwater runoff as well as non-stormwater pollutants that may enter stormwater discharges, construction activities would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site as a result of substantially altered drainage patterns. No impact would occur.

Operation Impacts

As the Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces and would include structural and non-structural BMPs to manage the quantity and improve the quality of stormwater runoff during operation, Project operations would not increase impermeable surfaces on site and, therefore, would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The development of the proposed project would not substantially alter the existing drainage pattern of the project site and would not alter the existing drainage pattern in the

surrounding area. In addition, the proposed project would not increase the rate or amount of surface runoff discharge from the project site; and, therefore, no on-site or off-site flooding would occur. Therefore, no significant impact would occur (EIR).

Mitigation Measures

None identified.

Significance Determination After Mitigation:

None made.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The proposed Project would require development of a site-specific SWPPP and a WQMP. The SWPPP implements BMPs throughout and would reduce the rate and amount of surface runoff and would reduce the sediment-laden stormwater runoff as well as non-stormwater pollutants that may enter stormwater discharges. The WQMP would include structural and non-structural BMPs to manage the quantity and improve the quality of stormwater runoff during operation.

Construction Impacts

As the Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces, and BMPs would reduce the rate and amount of surface runoff and would reduce the sediment-laden stormwater runoff as well as non-stormwater pollutants that may enter stormwater discharges, construction of the Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff as a result of substantially altered drainage patterns. No impact would occur.

Operation Impacts

As the Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces, and would include structural and non-structural BMPs to manage the quantity and improve the quality of stormwater runoff during operation, Project operations would not increase impermeable surfaces on site and therefore would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff as a result of substantially altered drainage patterns. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The proposed project would not create or contribute surface runoff which would exceed the capacity of the existing or planned stormwater drainage system or provide substantial additional sources of polluted runoff. No significant impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

iv. Impede or redirect flood flows?

The project site is in an area with minimal flood hazards, and flood flows are not expected to occur.

Construction Impacts

As the Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces, and it is located in an area with minimal flood hazards, construction activities would not impede or redirect flood flows as a result of substantially altered drainage patterns. No impact would occur.

Operation Impacts

As the Project would not substantially alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river or through the addition of impervious surfaces, and it is located in an area with minimal flood hazards, Project operations would not impede or redirect flood flows as a result of substantially altered drainage patterns. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The project area is located in an Area of Minimal Flood Hazard (Zone X) with a small portion near the southwest portion in an Area With Reduced Flood Risk Due to Levee (Zone X) (Figure 10-1; FEMA 2020). No water bodies are nearby that would subject the project site to seiches. The site is not subject to tsunamis (California Department of Conservation 2009).

Construction Impacts

As the Project site is in an area of minimal flood hazard and is not subject to tsunami or seiche, construction activities would not risk release of pollutants due to project inundation. No impact would occur.

Operation Impacts

As the Project site is in an area of minimal flood hazard and is not subject to tsunami or seiche, Project operations would not risk release of pollutants due to project inundation. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

A Priority Water Quality Management Plan (WQMP; Thomsen Engineering, Inc. 2008) was incorporated into the approved in 2009 CHOC Master Plan. This plan allows the continued use of the existing hospital and supporting facilities during the implementation of the Master Plan through the year 2020. At the time of planning and design, the CHOC WQMP would be amended or a new WQMP, in compliance with the current codes, would be developed. In either case the updated plan or the new plan would be submitted for City review and approval. Project construction and operation would occur in compliance with the amended or new WQMP.

Construction Impacts

As Project construction would occur in compliance with an amended or new WQMP, construction of the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

Operation Impacts

As Project operation would occur in compliance with an amended or new WQMP, Project operations would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

f) Would the project result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters from construction activities or post-construction activities?

Potential for discharge of stormwater pollutants can be controlled through the implementation of non-stormwater and waste and materials management.

Construction Impacts

During construction, the proposed Project will follow an approved site-specific SWPPP. Non-stormwater discharges into storm drainage systems which are not authorized under the Construction General Permit are prohibited. If applicable, vehicle and equipment cleaning will not be allowed on site unless necessary to control vehicle tracking or hazardous waste. Most construction vehicles will be fueled off site and will be stored off site. Any equipment that must be stored on site shall be kept under close supervision and, if leaking, be placed on plastic sheeting until repaired. Materials management BMPs shall be followed for handling and storing wastes such as hazardous materials handling or storage and delivery areas. The potential for discharge of stormwater to affect the beneficial uses of the receiving waters from construction activities or post-construction activities would be less than significant.

Operation Impacts

BMPs would be permanently installed such as Site Design BMPs and Source Control BMPs that minimize directly connected surfaces into a project to minimize and create zero discharge areas as well as structures aimed at eliminated or minimizing contact between pollutant sources and rainfall. The potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks, or other outdoor work areas during Project operations would be less than significant (City of Orange 2020g).

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No significant impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

g) Would the project result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?

The Project indirectly discharges to Santa Ana River Reach 2, which contains these Beneficial uses: Agricultural Supply, Groundwater Recharge, Rare, Threatened or Endangered Species, Water Contact Recreation, Non-contact Water Recreation, Warm Freshwater Habitat, and Wildlife Habitat (SWRCB 1995). The proposed Project is within a developed area and contains portions that are under an approved WQMP. The proposed Project is located in a Low Receiving Water Risk, as determined by SWRCB. The beneficial uses of the receiving waters will have less than significant impacts due to the indirect discharge of the proposed Project.

Construction Impacts

During construction, the site-specific SWPPP implementation aims to reduce and eliminate polluted stormwater into receiving water bodies by use of different types of BMPs. Construction of the Project would not result in the potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, or loading docks or other outdoor work areas.

Operation Impacts

During operation, the Project will adhere to structural and non-structural BMPs that are outlined in the approved WQMP. The effects of urbanization will be minimized through implementation of practicable project-based controls. BMPs may include site design measures, utilizing alternative programs or treatment control BMPs, and employing applicable source control BMPs. Project operations would not result in the potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, or loading docks or other outdoor work areas.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No significant impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

h) Would the project create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?

Construction Impacts

During construction, the Project will follow a site-specific SWPPP to reduce the risk of substantial soil erosion. Flow velocity reduction is achieved through BMP implementation. Sediment control BMPs consist of temporary or permanent structural measures that are intended to reduce or prevent the potential for stormwater runoff. Certain barriers such as silt fence and fiber rolls are temporary means to intercept and slow the flow of sediment-laden sheet flow runoff. These BMPs serve to pond stormwater, allowing sediment to settle and to slowly filter released water. Construction of the Project would not create the potential for significant changes in the flow velocity or volume of stormwater runoff that would cause environmental harm, and no impact would occur.

Operation Impacts

The proposed Project would entail on-site storm drainage systems. The project site is located within a developed area and is within the existing CHOC campus. The proposed Project would include storm drainage system improvements in the form of structural and non-structural water quality BMPs. These BMPs are to be designed as part of the WQMP to minimize the effects of runoff flow velocity and pollutant loads that may cause environmental harm. Project operations would not create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm, and no impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

11. LAND USE AND PLANNING

	New Potentially Significant Impact	New Mitigation I Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Environmental Setting

The environmental setting for the land use resource area includes the City of Orange General Plan (City of Orange 2010a, Land Use Element, revised December 2015) and Title 17 (Zoning) of the City's Municipal Code. In addition, development within the CHOC campus is governed under the 2009 Development Agreement (City of Orange 2009b). The project location is in an area that is predominantly urbanized with medical, professional office, and commercial uses. No residential uses exist within the project location. CHOC is located in the City's Health Corridor business district, which covers the area at the intersection of Main Street and La Veta Avenue. The Health Corridor business district is the geographic center where a "number of medical offices, care facilities, and boutique clinics that provide an array of specialized medical services" (City of Orange 2020i).

Adopted on March 9, 2010, the Orange General Plan describes the goals, policies, and implementation actions for long-range planning in the City of Orange (City), and land use is regulated under the City's Zoning Code (City of Orange 2010a, Land Use Element, revised December 2015). The current Land Use Element provides goals, policies, and implementation programs that address eight citywide and eight focus area issues. The Project site land use designation is Urban Office Professional, and it is located within the South Main Street Corridor focus area and in the former Southwest Redevelopment Project Area, Thematic District #3 - South Main/La Veta. The entire CHOC campus is also managed under the Development Agreement executed by CHOC and the City of Orange in 2009 (City of Orange 2009b).

The land use designation for the Project area, Urban Office Professional, is described as "Urban, high-intensity, mid-and high-rise office centers. Professional office is intended as the primary use. However, support retail and service commercial uses are also permitted as necessary to serve adjacent professional offices. Hospitals and supporting uses are also permitted." Intensity of use in the Urban Office Professional land use designation ranges from floor area ratios (FAR) from 1.5 to 3.0.

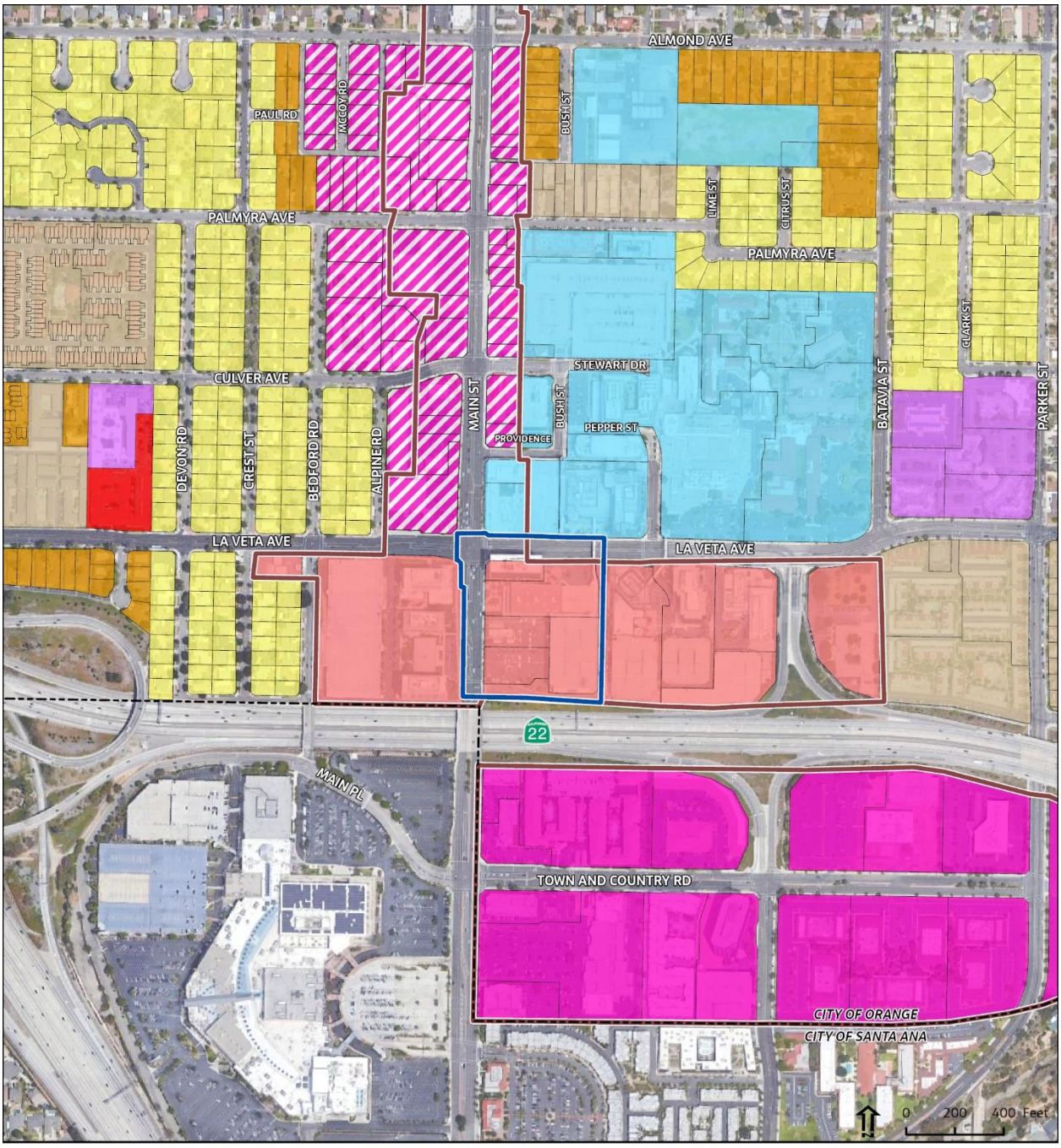
The project area also falls within the South Main Street Corridor focus area. The City has identified eight land use focus areas where significant land use changes are anticipated. The South Main Street Corridor covers the area along Main Street, from south of Chapman Avenue to south of State Route 22 along Town and Country Road. Main Street serves as the most-travelled approach for the CHOC and St. Joseph Hospital medical centers, which along with the nearby regional shopping center, have influenced the need for more high-density housing and mixed-use development in the area. This focus area designation encourages mid- to high-rise office, medical, housing, and retail uses south of La Veta Avenue, where

maximum allowable use intensity is 3.0 FAR and represents locations in the City of Orange where future land use change may occur.

Figure 11-1 shows the General Plan Land Use Designations and South Main Street Corridor focus area.

Based on the City's Zoning Map (City of Orange 2020e), the project area is in the C-2 (General Business) zoning district, which is identified in Chapter 17.18 of the City's Municipal Code as permitting a broad range of commercial uses. The project area is not within 120 feet of a residential district, meaning buildings taller than 32 feet are allowed, provided no part of the building exceeds one-quarter of the horizontal distance, measured in feet, between the ground point of the building and the nearest residential district boundary line. This area of the project location was zoned as C-2 in the 2009 Certified CHOC Master Plan EIR (City of Orange 2009a).

Figure 11-2 shows the Zoning Districts for the project location.



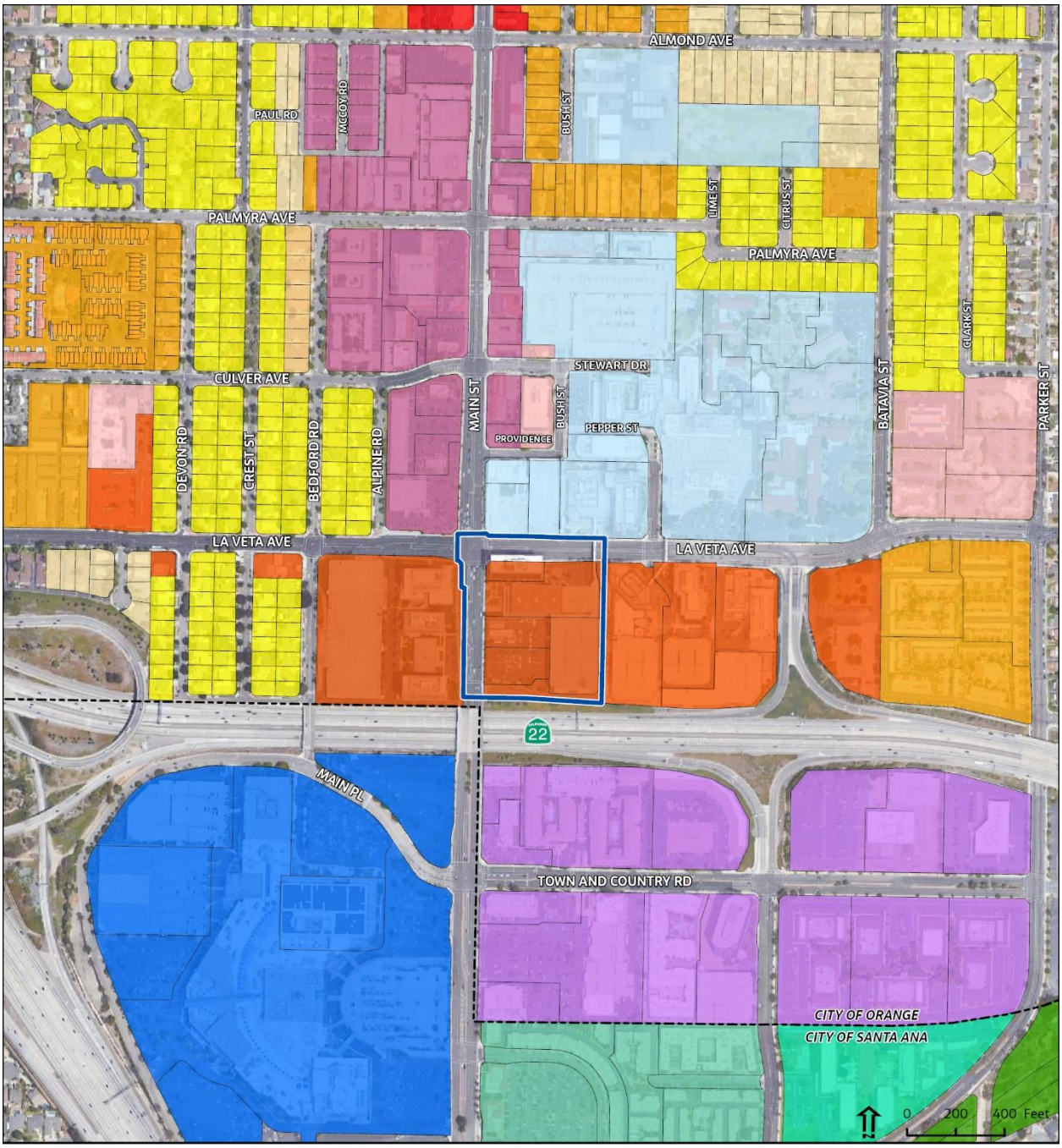
- Project Footprint
- General Commercial
- Low Density Residential
- Low Medium Density Residential
- Medium Density Residential
- Neighborhood Mixed Use
- Neighborhood Office
- Public Facilities and Institutions
- Urban Mixed Use
- Urban Office Professional
- South Main Street Corridor Focus Area

Children's Hospital of Orange County

General Land Use Map

Data Source:
City of Orange, General Plan, December 2015

Figure 11-1



- Project Footprint
- C-1 Limited Business
- C-2 General Business
- C-3 Commercial
- NMU-24 Neighborhood Mixed Use
- O Open Space Land
- O-P Office Professional
- P-1 Public Institution
- R-1-6 Single Family Res 6000 Sq Ft
- R-2-6 Res Duplex 6000 Sq Ft
- R-2-6 (A) Res Duplex 6000 Sq Ft Single Story
- R-3 Residential Multiple Family
- SD59 Specific Development
- SD87 Specific Development
- SP4-HDII Mainplace Specific Plan Height District II
- UMU Urban Mixed Use

Children's Hospital of Orange County

Zoning Map

Data Source:
City of Orange, Zoning Map, September 2020
City of Santa Ana, Zoning Map, March 2020

Figure 11-2

Impact Analysis

a) Would the project physically divide an established community?

The proposed Project is located entirely within the existing CHOC campus, whose mix of urban uses within the surrounding area does not constitute an established neighborhood. Therefore, the site would not be located within or divide an existing neighborhood. As a result, the proposed Project would not disrupt or divide the social or physical interactions of an established community.

Construction Impacts

As the proposed Project is located entirely within the existing CHOC campus, construction of the Project would not physically divide an established community. No impacts would occur.

Operation Impacts

As the proposed Project is located entirely within the existing CHOC campus, Project operations would not physically divide an established community. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The 2009 CHOC Master Plan EIR that was certified by the City of Orange resulted in issuance of a zone change (City of Orange 2009a), execution of the 2009 Development Agreement (City of Orange 2009b), and approval of a conditional use permit and tentative parcel map for the CHOC campus. The proposed Project is implementation of the portion of the Enterprise Master Plan for CHOC for the area south of La Veta Avenue which updates the prior Master Plan.

The proposed Project appears consistent with the Urban Office Professional land use designation, assuming intensity associated with the proposed Project remains at or below 3.0 FAR. In the event intensity exceeds 3.0 FAR, the City may require special studies to show the Project's ability to mitigate adverse impacts on adjacent properties and the citywide circulation system.

The proposed Project may conflict with the General Business zoning designation which limits the new building heights not to exceed one-quarter the horizontal distance of the proposed new building to the nearest residential district boundary line. The nearest residential district boundary to the project boundary is located at the northwest corner of South Alpine Road and La Veta Avenue, approximately 570 feet northwest of the northwest corner of the surface parking lot on Main Street on the CHOC campus, meaning that new building heights would be considered consistent if they are 142 feet or lower. Additional building height must be permitted, subject to approval of a conditional use permit, by the Planning Commission.

Construction Impacts

Based on the distance to the nearest residential district boundary line, if the proposed new Medical Office Building exceeds 142 feet in height, a conditional use permit would be required from the City prior to construction. The current building design of 168 feet in height would exceed the 142-foot height limit. The existing Development Agreement allows construction of a new medical office building up to 25 stories at this location. The proposed Medical Office Building would be shorter, at up to 11 stories, and so would be shorter than and thus within the scope of what was previously analyzed and approved. A conditional use permit would be required. Once a conditional use permit is issued, any potential for conflict with a land use plan, policy, or regulation adopted would be eliminated. No impacts would occur.

Operation Impacts

If the Project were to exceed the maximum FAR, the City would require that it not result in any adverse impacts to adjacent properties and the citywide circulation system prior to its approval. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact or less than significant impacts to goals and policies of the City's general plan (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

12. MINERAL RESOURCES

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

Environmental Setting

The project site area is mapped as being underlain by young alluvial fan deposits which are widespread throughout Orange County and the region. The project site is covered by urban development; and, as such, any mineral resources such as sand and gravel, which may be present in the area, are not available for mining. The project site is not located in area designated for mineral resources in the City of Orange Zoning Map (Figure 11-2; City of Orange 2020e).

Impact Analysis

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The Project site is covered by urban development; and, as such, any mineral resources such as sand and gravel, which may be present in the area, are not available for mining.

Construction Impacts

As the Project site is covered by urban development and is not available for mining, construction of the Project would not result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state. No impacts would occur.

Operation Impacts

As the Project site is covered by urban development and is not available for mining, Project operations would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The project site is not located in area designated for mineral resources in the City of Orange Zoning Map (Figure 11-2; City of Orange 2020e).

Construction Impacts

As the Project site is not located in an area designated for mineral resources in the City of Orange Zoning Map, construction of the Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impacts would occur.

Operation Impacts

As the Project site is not located in an area designated for mineral resources in the City of Orange Zoning Map, Project operations would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

13. NOISE

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Environmental Setting

Noise Fundamentals

Noise can be defined as unwanted sound. Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. The sound pressure level or decibel (dB) scale is the most common descriptor used to characterize the loudness of an ambient sound level. In general, human sound perception is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving sound level. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called "A-weighting," or "dBA." The A-weighted sound level is widely accepted by acousticians as a proper unit for describing environmental noise. Table 13-1 describes typical A-weighted noise levels for various noise sources.

To characterize the noise environment in a given area, the following noise descriptors are commonly used.

- Maximum Sound Level (L_{max}). The maximum sound level measured during the measurement period.
- Minimum Sound Level (L_{min}). The minimum sound level measured during the measurement period.
- Equivalent Sound Level (L_{eq}). The equivalent steady state sound level that in a stated period of time would contain the same acoustical energy.

Table 13-1. Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	**— 70 —**	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	**— 60 —**	
		Large business office
Quiet urban daytime	**— 50 —**	Dishwasher next room
Quiet urban nighttime	**— 40 —**	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	**— 0 —**	Lowest threshold of human hearing
Source: Technical Noise Supplement to the Traffic Noise Analysis Protocol (Caltrans 2013).		

Day/night Average Noise Level or Community Noise Equivalent Level (L_{dn} or CNEL). Both metrics describe the same 24-hour level with 10 dBA applied to the actual noise level during the hours from 10:00 p.m. to 7:00 a.m. The CNEL also requires that 5 dBA be applied to the actual noise level during the hours from 7:00 p.m. to 10:00 p.m. The applied increments take into account a person's increased sensitivity to noise during these periods.

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The degree to which noise reduces with distance depends on the following factors.

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 decibels for each doubling of distance from a point source. Roadways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a roadway to receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. When added to the spherical spreading, the excess ground attenuation results in an overall drop-off rate of 7.5 decibels per doubling of distance.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction. Taller barriers provide increased noise reduction. Vegetation between the noise source and receiver is rarely effective in reducing noise because it does not create a solid barrier.

Noise Receivers

Noise sources in the project area generally include transportation noise (e.g., vehicle traffic, transit, aircraft), mechanical equipment (e.g., air conditioning, mechanical equipment), and natural sources (e.g., wind, birds, insects).

Noise sensitive uses (noise receivers) can best be defined as those locations or areas where dwelling units or other fixed, developed sites of frequent human use occur. Noise receivers typically include residences, lodging (hotels, motels, and similar uses), places of worship, restaurants, educational facilities, hospitals, and libraries. Noise receivers within 450 feet of the proposed Project site include a single-family neighborhood located west of South Alpine Road, St. Joseph Hospital located north of La Veta Avenue and east of South Pepper Street, buildings to the east and north within the CHOC campus, and an apartment complex located south of the Garden Grove Parkway (State Route 22). Five hundred feet represents the typical distance at which a noise source from the project site can be expected to return to the estimated ambient levels described below (see *Existing Noise Conditions*). Each of these noise receivers is located within the City of Orange. The 500-foot distance from the proposed Project site includes an area within the adjacent City of Santa Ana; however, only non-sensitive uses, including commercial and retail, are located in the City of Santa Ana within 500 feet of the project area.

Ground Vibration and Noise Fundamentals

In contrast to airborne noise, groundborne vibration (GBV) is not a phenomenon experienced by most people on a daily basis. Typical outdoor sources of perceptible GBV are construction equipment and traffic on rough roads. Figure 13-1 depicts the typical levels of GBV. The effects of GBV include feelable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Groundborne noise (GBN) is the rumbling sound caused by the vibration of room

surfaces. The annoyance potential of GBN is usually characterized with the A-weighted sound level. GBV is almost never annoying to people who are outdoors. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB).

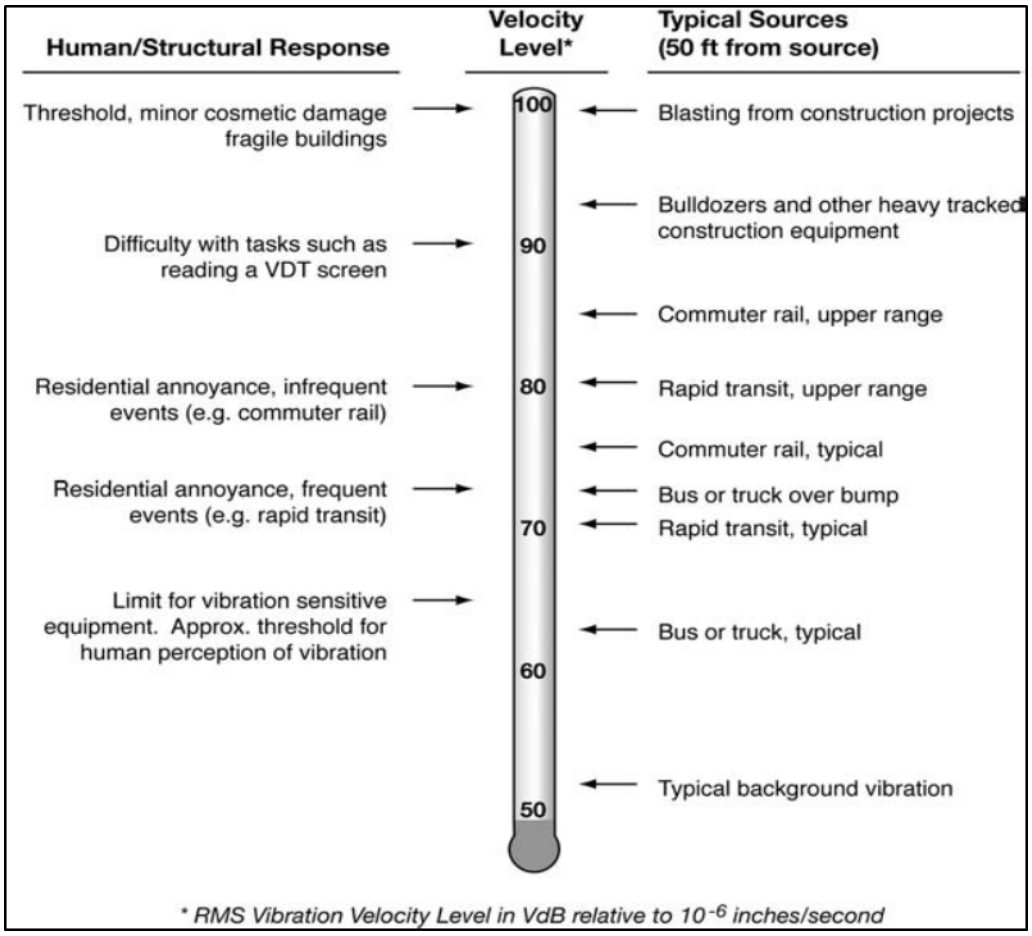
Vibration Sensitive Locations

Buildings within 500 feet of the proposed Project site include residential, municipal, office and retail buildings, and two hospitals including the proposed Project site itself. The potential for vibration damage from construction or operation of the proposed Project is a function of the types of building materials for each of these uses. The office and hospital buildings are most likely constructed of reinforced-concrete, steel, or timber (no plaster) and/or engineered concrete and masonry (no plaster). Residential and retail units are most likely constructed of non-engineered timber and masonry. The presence of buildings extremely susceptible to vibration damage within 500 feet of the proposed Project is unlikely.

Existing Noise Conditions

Existing ambient noise levels were estimated using reference tables for estimating existing noise exposure in the vicinity of transportation facility (roadway) for general noise assessment (Table 4-17) as defined in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (FTA 2018). The estimated ambient noise levels within 500 feet of the proposed Project site range between 50 (dB) on the A-weighted scale (dBA) and 65 dBA during daytime hours (7 a.m. to 10 p.m.) and 40 dBA and 55 dBA during nighttime hours (10 p.m. to 7 a.m.).

Per State requirements, the City of Orange and the City of Santa Ana have each developed Noise Elements for their respective General Plans. The City of Orange General Plan – Noise Element includes 2004 and future 2030 noise contours along major surface streets, with a 70-dBA CNEL contour located within the roadway prism of most major and minor arterials and a 65 dBA CNEL contour located outside the roadway prism, up to and beyond the adjacent right-of-way (City of Orange 2010a, Noise Element, revised December 2015).



Source: Noise and Vibration Impact Assessment Manual (FTA 2018).

Typical Groundborne Vibration Levels

Figure 13-1

Local Plans

The City of Orange General Plan – Noise Element has set noise thresholds for the land use types located within 500 feet of the proposed Project as shown in Table 13-2.

Table 13-2. City of Orange General Plan Maximum Allowable Noise Exposure

Transportation Sources			
Land Use		**CNEL (dBA)**	
Designations	**Uses**	**Interior [1,2]**	**Exterior [3]**
Estate Low Density Residential Low Density Residential Low Medium Density Residential	Single-family, duplex, and multiple-family	45	65
Medium Density Residential Neighborhood Mixed-use Neighborhood Office Professional General Commercial Urban Mixed-use Urban Office Professional	Single-family, Multiple-family, mixed-use Office buildings, business, commercial and professional	45	65
Public Facilities and Institutions	Schools, nursing homes, day care facilities, hospitals, convalescent facilities, dormitories	45	65
Stationary Sources [4, 5, 6, 7]			
Noise Level Descriptor	Daytime (7:00 a.m. to 10 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)	
Hourly Equivalent Level (L_{eq}), dBA	55	45	
Maximum Level (L_{max}), dBA	70	65	

Notes:

1. Interior habitable environment excludes bathrooms, closets and corridors.
2. Interior standard shall be satisfied with windows in the closed position. Mechanical ventilation shall be provided per Uniform Building Code (UBC) requirements.
3. Exterior noise level standard to be applied at outdoor activity areas; such as private yards, private patio or balcony of a multi-family residence. Where the location of an outdoor activity area is unknown or not applicable, the noise standard shall be applied inside the property line of the receiving land use.
4. These standards apply to new or existing noise sensitive land uses affected by new or existing non-transportation noise sources, as determined at the outdoor activity area of the receiving land use. However, these noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).
5. (2) Each of the noise levels specified above should be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).
6. (3) No standards have been included for interior noise levels. Standard construction practices that comply with the exterior noise levels identified in this table generally result in acceptable interior noise levels.
7. (4) The City may impose noise level standards which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels. If the existing ambient noise level exceeds the standards listed in Table N-4, then the noise level standards shall be increased at 3 dB increments to encompass the ambient environment. Noise level standards incorporating adjustments for existing ambient noise levels shall not exceed a maximum of 70 dB Leq.

Source: City of Orange 2010a, General Plan, Noise Element.

Similarly, the City of Santa Ana General Plan – Noise Element has set noise thresholds for the listed land use types as shown in Table 13-3, none of which occur within 500 feet of the proposed Project (City of Santa Ana 2020b).

Table 13-3. City of Santa Ana General Plan Interior and Exterior Noise Standards

Categories	Land Use Categories	CNEL (dBA)	
		Interior [1, 3]	Exterior [2]
Residential	Single-family, duplex, multi-family	45	65
Institutional	Hospital, school classroom/ playground	45	65
	Religious facility, library	45	--
Open Space	Parks	--	65

Notes:
1. Interior areas (to include but are not limited to: bedrooms, bathrooms, kitchens, living rooms, dining rooms, private offices, and conference rooms.
2. Exterior areas shall mean: private yards of single family homes, park picnic areas, school playgrounds, common areas. Private open space, such as atriums on balconies, shall be excluded from exterior noise requirements provided sufficient common area is included within the Project.
3. Interior noise level requirements contemplate a closed window condition. Mechanical ventilation system or other means of natural ventilation shall be provided per Chapter 12 of the Uniform Building Code, as necessary.

Source: City of Santa Ana 2020b, Draft General Plan – Noise Element.

Local Ordinances

Noise

The City of Orange Code, Chapter 8.24.040 and the City of Santa Ana Code, Section 18-312 implement similar exterior noise standards for fixed noise sources that, unless otherwise specifically indicated, apply to all residential property. The City of Santa Ana Code, Section 18-313 implements interior noise standards as well.

Table 13-4. Noise Standards for City of Orange and City of Santa Ana

	Noise Level		Time Period
	Exterior	Interior [1]	
Hourly Average (L_{eq})	55 dB(A)	55 dB(A)	7:00 a.m. – 10:00 p.m.
	50 dB(A)	45 dB(A)	10:00 p.m. – 7:00 a.m.
Maximum Level [2]	70 dB(A)		7:00 a.m. – 10:00 p.m.
	65 dB(A)		10:00 p.m. – 7:00 a.m.

Notes:
1. City of Orange Ordinance 8.24.040 only.
2. City of Santa Ana Ordinance 18-313 only.

The City of Orange and City of Santa Ana Codes provide exemptions for the following noise sources:

- Chapter 8.24.050, Exemptions from Chapter Provisions
    - Construction noise between the hours of 7:00 a.m. and 8:00 p.m. except Sunday or a federal holiday.

- Noise sources associated with the maintenance of real property on weekdays between 7:00 a.m. and 8:00 p.m. and on Sundays and federal holidays between 9:00 a.m. and 8:00 p.m.

- Mobile sources including operational noise from trains, automobiles, or trucks traveling on roadways. Land use compatibility with these sources is addressed in the City General Plan.

- City of Santa Ana Code Section 18-314, Special Provisions

    - Construction noise between the hours of 7:00 a.m. and 8:00 p.m. except Sunday or a federal holiday.

    - Noise sources associated with the maintenance of real property on weekdays between 7:00 a.m. and 8:00 p.m. and on Sundays and federal holidays between 9:00 a.m. and 8:00 p.m.

The City of Santa Ana Code does not provide an exemption for mobile sources other than those related to agricultural operations or pest control.

Groundborne Vibration

The City of Orange Code 17.20.250 – Vibration requires that:

> "Every use shall be operated in a manner so that the ground vibration inherently and recurrently generated is not tactually perceptible at any point for any duration or intermittent periods of time, on any boundary line of the lot on which the use is located."

The Code does not set forth ground vibration thresholds. The City of Santa Ana Code does not have specific provisions related to groundborne vibration.

Airport Land Use Plans

Three AELUPs apply to airports in Orange County, and one AELUP is for all heliports within the County. Table 13-5 lists the names of the plans and the location of these airports/heliports relative to the proposed Project location.

Table 13-5. Airport Environs Land Use Plans in Orange County

Name of Airport/Heliport	AELUP (Date)	Project Within AELUP Area of Influence (Y/N)	Project Distance to AELUP Area of Influence
Fullerton Municipal	February 21, 2019 (amended)	No	Approx. 9 miles
John Wayne Airport	April 17, 2008 (amended)	No	Approx. 5 miles
Joint Forces Training Base Los Alamitos	August 17, 2017 (amended)	No	Approx. 10.5 miles
Children's Hospital of Orange County (Heliport 4CA5)	June 19, 2008 (amended)	Yes	0 miles
SCE Serrano Substation (Heliport CL55)		No	Approx. 5.5 miles
UCI Medical Center (Heliport 1CL4)		No	Approx. 1.5 miles
Sources: AELUPs for Fullerton Municipal Airport (2019), John Wayne Airport (2008), Joint Forces Training Base Los Alamitos (2017), Orange County Heliports (2008).			

Impact Analysis

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction of the proposed Project has the potential to generate noise from construction equipment usage, vehicle trips from construction workers, and supply trucks traveling to and from each project site. At this time, the specific schedule, equipment, and usage profile for construction of the proposed Project is unknown. Default inputs for construction activity from CalEEMod, which are based on the building and demolition footprint shown in Table 3-5 in the Air Quality section of this checklist. Based on this data, construction equipment used for the proposed Project could include: concrete saws, excavators, dozers, tractors/loaders/ backhoes, graders, scrapers, cranes, forklifts, generator sets, welding equipment, pavers, rollers, and air compressors.

Noise levels would vary depending on the type of equipment used, how and when it operates, and how well it is maintained. Demolition activities are anticipated to generate the loudest noise levels during construction. Therefore, estimated noise levels are based on construction equipment that would be used during the demolition phase. The FHWA Roadway Construction Noise Model (RCNM) v. 1, which accounts for various types of vehicular equipment, was used to assess potential short-term construction impacts at each site where noise-sensitive receivers were identified. In estimating noise exposures for construction equipment, it was assumed that attenuation would be by geometric spreading and shielding from adjacent buildings. The geometric spreading of sound from a localized source (i.e., a point source) is discussed above. Existing or future noise abatement, such as sound walls, was not included. Table 13-6 shows the estimated noise levels at the three closest noise receivers within 500 feet of the proposed Project site.

Table 13-6. Estimated Construction Noise Levels at Noise Receivers within 500 feet of the Project Site

Receiver	Distance to Project Site	Local Ordinance Threshold L_{eq} (dBA) [1]				Estimated Noise Levels (dBA)	
		Day	Night	Max		L_{eq}	L_{Max}
				Day	Night		
SFH Neighborhood	500 feet	55	50	70	65	*64.9*	*68.1*
St. Joseph Hospital	463 feet	N/A				*65.6*	*68.7*
CHOC North [3]	100 feet	N/A				*80.4*	*83.6*
CHOC East [4]	175 feet	N/A				*75.6*	*78.7*
Apartment Complex	334 feet	55	50	70	65	*69.9*	*73.1*
Receiver	**Distance to Project Site**	**Local Plan Threshold L_{eq} (dBA) [2]**				**Estimated Noise Levels (dBA)**	
		Day	Night	Max		L_{eq}	L_{Max}
				Day	Night		
SFH Neighborhood	500 feet	55	45	70	65	*64.9*	*68.1*
St. Joseph Hospital	463 feet					*65.6*	*68.7*
CHOC North [3]	100 feet					*80.4*	*83.6*
CHOC East [4]	175 feet					*75.6*	*78.7*
Apartment Complex	334 feet					*69.9*	*73.1*

Notes:
1. City of Orange Ordinance 8.24.040. Noise are located outside the City of Santa Ana limits; therefore, City Ordinance 18-313 is not included in the table.
2. City of Orange General Plan (2010a) – Noise Element. Sources of noise are located outside the City of Santa Ana limits; therefore, General Plan – Noise Element is not included in the table.
3. Closest CHOC office building exterior area north of the Project site.
4. Closest CHOC office building exterior area east of the Project site.

Italicized values exceed the local ordinance and/or General Plan thresholds.

Permanent sources of operational noise would include traffic noise introduced to the project area from hospital staff and patients using the planned expanded parking facilities, noise from heating and cooling equipment for the expanded building space, and noise from maintenance activities on site grounds.

According to the Air Conditioning, Heating, and Refrigeration Institute (AHRI) standard 270, the typical noise ratings for outdoor refrigeration units designed to this standard is 68 dBA. As a worst-case scenario, this analysis assumed that the noise emissions from the new Medical Office Building air conditioning units would be located on the ground and 10 feet from a reflective

surface. Based on the calculations in AHRI standard 275, the noise exposure from the HVAC systems would be at most 33 dBA at for distances beyond 32 meters (105.0 feet). [2]

Staff and patient traffic were estimated from CalEEMod default mobile vehicle inputs based on the building and demolition footprint shown in Table 3-5 in the Air Quality section of this checklist.

Table 13-7. Estimated Operational Average Daily Traffic Volumes Generated by the Proposed Project

Proposed Building Footprint	Square footage	Weekday Trip Rate	Estimated Trips
		13.22 per 1,000 ft^2/day [1]	
11-story Medical Office Building	370,000		4,891
Net Total Trips			4,891

Notes: ft^2/day: square foot per day
1. CalEEMod average weekday trip rate per 1,000 square foot of building space.

By comparison, the City of Orange 2018 Traffic Flow Map average daily counts for the four major surface streets that form the Main Street/La Veta Avenue intersection total 116,900 vehicles (City of Orange 2018). Caltrans average annual daily traffic counts for 2017 on the Garden Grove Parkway (State Route 22) are approximately 146,000 to 154,000 vehicles; therefore, the proposed Project could contribute 4.2 percent and 3.2 percent of volumes on these existing roadways, respectively.

Construction Impacts

As shown in Table 13-6, construction noise during the proposed Project's demolition phase would exceed the local City of Orange noise ordinance thresholds if it occurs after 8:00 p.m. and before 7:00 a.m. on weekdays or on Sunday or a federal holiday. Construction noise is exempt from Ordinance 8.24.040 if conducted between the hours of 7:00 a.m. and 8:00 p.m. except Sunday or a federal holiday. Construction noise would also exceed the City General Plan – Noise Element threshold for stationary sources; therefore, Project construction could generate a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance. Construction activity outside the exemption hours would result in a potentially significant impact. However, the Project would comply with MM 4.8-1 from the MMRP limiting construction activity time frames and reducing noise levels from construction equipment operations. No impact would occur

It should be noted that the minor amount of vehicle traffic generated during construction of the proposed Project, estimated by CalEEMod at between 15 and 465 daily vehicles for all construction phases, would make a minimal contribution to existing traffic volumes and traffic noise levels and were not considered further.

[2] The calculation methodology is shown in AHRI 2010 Standard for Application of Outdoor Unitary Equipment A-Weighted Sound Power Ratings Standard 275 (AHRI 2010).

Operation Impacts

Heating, Ventilation, and Air Conditioning (HVAC) units: The HVAC units analysis assumed that air conditioners would operate 24 hours a day and were calculated as community noise equivalent level (CNEL) per the City of Orange General Plan – Noise Element. The basic conversion from L_{eq} to CNEL assumes a 5 dBA penalty and 10 dBA penalty added during evening hours (7:00 p.m. to 10:00 p.m.) and night hours (10:00 p.m. to 7:00 a.m.), respectively. Based on this calculation, the CNEL at 48 meters (157.5 feet) would be 35.7 dBA, which is below the listed thresholds.

Traffic: As shown in Table 13-7, operation and maintenance of the Project could contribute an estimated 4,891 daily vehicles to the local surface street traffic. As stated above, this represents between 4.9 percent and 6.5 percent of traffic on the Garden Grove Freeway (State Route 22), Main Street, and La Veta Avenue. A doubling of traffic generally represents a 3-dBA increase in traffic noise, assuming a similar vehicle mix (cars vs. trucks) and speeds remain consistent. A 5 percent to 7 percent increase in traffic would result in less than a decibel increase in ambient noise levels to adjacent land uses.

Maintenance: As shown in Table 13-1, a typical noise level for a gas lawn mower at 100 feet is 70 dB at the nearest noise receiver (CHOC North), exceeding the City of Orange thresholds shown in Table 13-2 and Table 13-4. Because existing maintenance activities occur on the CHOC campus, it is assumed they occur between the hours of 7:00 a.m. and 8:00 p.m. and on Sundays and federal holidays between 9:00 a.m. and 8:00 p.m.; therefore, continuing campus maintenance would qualify for the City of Orange ordinance 8.24.050 exemption of maintenance activities.

The Project operation and maintenance would not generate a substantial permanent increase in ambient noise levels in excess of standards established in local general plan or noise ordinance. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Construction and traffic-related noise levels during off-site construction and operation would be less than significant (EIR). Construction and traffic-related noise levels during on-site construction would result in a significant impact (EIR). On-site stationary noise sources during operation would be less than significant (EIR).

Mitigation Measures:

Construction: The following mitigation measure applies for construction and traffic-related noise levels during on-site construction

MM 4.8-1: The Applicant shall require the construction contractor to adhere to the following noise attenuation requirements:

(a) Construction activities shall be limited to the hours of 7 a.m. to 8 p.m. except Sunday or a federal holiday.

(b) All construction equipment shall use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

(c) Construction staging and heavy equipment maintenance activities shall be performed as far away as practical from the nearby sensitive receptors unless safety or technical factors take precedence.

(d) The Applicant shall require the demolition contractor to place the crushing/processing equipment as far away as practical from any nearby sensitive receptors.

(e) Stationary combustion equipment such as pumps or generators shall operate as far away as practical from nearby sensitive receptors, unless safety or technical factors take precedence, and shall be shielded with a noise protection barrier.

Operation: None made.

Significance Determination After Mitigation:

Construction: During the construction activities for the proposed Project, the noise levels at nearby sensitive receptors as a result of the on-site construction activities in combination with the off-site construction-related traffic would exceed the City's noise standards and would be considered a significant impact. Incorporation of Mitigation Measure MM 4.8- 1 would reduce the construction-related noise levels. However, this impact would remain a significant unavoidable impact.

Operation: None made.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Groundborne vibration and groundborne noise levels are generally caused by impact devices such as pile driving. Based on the CalEEMod default inputs for the building and demolition footprint shown in Table 3-5 in the Air Quality section of this checklist, use of these devices is not anticipated during construction. The model assumes office and hospital buildings are constructed of reinforced-concrete, steel, or timber (no plaster) and/or engineered concrete and masonry (no plaster). Residential and retail units are most likely constructed of non-engineered timber and masonry. The presence of buildings extremely susceptible to vibration damage within 500 feet of the proposed Project is unlikely.

The City of Orange Code and General Plan – Noise Element (City of Orange 2010a, revised 2015) do not establish specific criteria for groundborne vibration and groundborne noise levels. Referring to Los Angeles County Code of Ordinances 12.08.350 – Vibration (LA County 1978) to establish potential project impacts, a damage assessment was conducted to determine if vibration levels during construction would exceed a motion velocity of 0.01 inch per second over the range of 1 to 100 Hertz as specified in the local ordinance.

Construction Impacts

The ground motion caused by vibration is measured as peak particle velocity (PPV) in inches per second and referenced as VdB. According to FTA guidelines (FTA 2018), vibration levels from construction equipment used for this Project would range from 0.003 to 0.089 inch per second

at 25 feet and 0.0005 to 0.0142 inch per second at 85 feet. No fragile buildings are located within 85 feet of the proposed Project site; therefore, the Project construction would not generate excessive groundborne vibration or groundborne noise levels. No impacts would occur.

Operation Impacts

The proposed Project would not require the operation of any groundborne noise or vibration-generating equipment; therefore, the Project operation and maintenance would not generate excessive groundborne vibration or groundborne noise levels. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The demolition phase for the proposed project would result in a short-term significant unavoidable impact with the exposure of people on site (i.e., at the CHOC North Tower) to groundborne vibration and groundborne noise levels. The demolition phase for the proposed project would not result in a significant impact from the exposure of persons at off-site land uses to excessive groundborne vibration or groundborne noise. The ongoing operation of the proposed project would not result in significant impacts from the exposure of persons on the project site to excessive groundborne vibration or groundborne noise levels (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The proposed Project is located within the AELUP Area of Influence of CHOC's heliport (4AC5), located atop the Bill Holmes Tower on the northeast corner of La Veta Avenue and South Pepper Street, and would be subject to noise by heliport activity. The distance of closest part of the proposed Medical Office Building to the CHOC Heliport would be approximately 600 feet.

Construction Impacts

Construction personnel would be wearing hearing protection to reduce their exposure to construction noise. People performing construction would not be exposed to excessive helicopter noise. No impacts would occur.

Operation Impacts

Outpatients, staff, and associates in the new Medical Office Building could be subjected to noise from helicopter activity at the CHOC heliport. The building design and construction would

include insulation/dampers to reduce interior noise levels so that people in the building would not be exposed to excessive noise. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist). However, the 2008 Initial Study (Vista Community Planners 2008a) did not consider the CHOC Heliport AELUP.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

14. POPULATION AND HOUSING

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Environmental Setting

The project location is in an area that is predominantly urbanized with medical, professional office, and commercial services and served by existing roads and infrastructure. No residential uses exist within the project location. Current land use designations and zoning districts for the project location reflect non-residential uses (Figure 11-1 and Figure 11-2). The proposed Project would demolish existing CHOC structures and construct new medical office buildings as well as new and expanded parking facilities. According to the City's Comprehensive Annual Financial Report Year (City of Orange 2019), CHOC employed 3,500 workers in 2019, comprising 4.98 percent of the total employment in the City.

The City had an existing population of 140,065 persons, as of January 1, 2020 (State of California 2020a). The City is forecasted to have a population of 154,000 by the year 2045 according to SCAG (2020). This would result in a projected increase of 12,935 persons (or an increase of approximately 9.2 percent) over the City's existing population. The City has a diverse economic base that includes a full spectrum of retail, office, and industrial uses as well as major medical centers and educational institutions that provide employment opportunities. In 2016, employment in the City comprised 123,000 jobs, and this is projected to increase to 131,300 jobs by 2045 (SCAG 2020). This broad range of business activity provides the City with a local, national, and international presence and has attracted new residents to the City. The land uses on the project site that generate employment are: CHOC, including the research clinic in the CHOC Research Building and the clinic, offices, and ambulatory care center in the CHOC West Building; the medical office space in the Orange Medical Building; and the general office space and medical office space in the CHOC Commerce Tower. The other land uses on the project site, such as those related to parking or site maintenance, are supportive of these land uses and provide employment opportunities to vendors.

Impact Analysis

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Implementation of the proposed Project would not directly induce substantial unplanned growth, as no new homes or businesses are being proposed. The minor increases in square footage for the proposed buildings are not expected to substantively increase population within the immediate area or the region. The daytime population for the CHOC campus is expected to increase during Project construction with the influx of temporary construction workers. During Project operation, the daytime population would increase, without patients visiting and CHOC personnel working in the New Medical Office Building. Implementation of the proposed Project would not require extension of roads or infrastructure to areas not being currently served; therefore, the proposed Project would not indirectly induce substantial unplanned population growth in the area.

Construction Impacts

As the proposed Project does not include new homes or businesses and would not require extension of roads or infrastructure to areas not being currently served, construction of the Project would not result in a substantial unplanned population growth in the area, through extension of roads or other infrastructure. No impact would occur.

Operation Impacts

As the proposed Project does not include new homes or businesses and would not require extension of roads or infrastructure to areas not being currently served, Project operations would not induce a substantial unplanned population growth in the area, through extension of roads or other infrastructure. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No significant impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No existing residential uses are present within or immediately adjacent to the project location. The proposed Project would be located on the existing CHOC campus and would not acquire any residential land that would displace substantial numbers of existing people or housing, nor would the proposed Project necessitate the construction of replacement housing elsewhere. The proposed Project would not displace substantial numbers of existing people or housing or require replacement housing.

Construction Impacts

As the proposed Project would be located on the existing CHOC campus and would not acquire any residential land, construction of the Project would not displace a substantial number of people or housing that would require construction of replacement housing. No impacts would occur.

Operation Impacts

As the proposed Project would be located on the existing CHOC campus and would not acquire any residential land, Project operations would not displace a substantial number of people or housing that would require construction of replacement housing. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

15. PUBLIC SERVICES

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☒	☐

Environmental Setting

The City of Orange, with a land area of 27 square miles and a population of 139,873, is a large city with significant regional employers such as University of California, Irvine Medical Center, CHOC, Sisters of St. Joseph Hospital, and Orange County Transportation Authority (OCTA) (City of Orange. 2020f). The City of Orange Fire Department provides fire protection and emergency medical services to the city (City of Orange 2010b). Orange Fire Station 5, located at 1345 West Maple Avenue, is 0.57 mile north of the project location and serves the CHOC vicinity. Fire Station 1 (176 South Grand Street) and Fire Station 6 (345 City Drive South) are also in the vicinity of the Project. The Orange Police Department provides citywide police protection services, including Supportive Services, Investigative Services, and Field Services Division (City of Orange 2010b). Orange Police Department headquarters is located at 1107 North Batavia Street, Orange, 1.75 miles north of the project location.

The project location is in an area that is predominantly urbanized with medical, professional office, and commercial services. The nearest public school is West Orange Elementary School, located 0.3 mile north of the project site at 243 South Bush Street. The nearest private school is Little Scholars Academy of California, at 1510 West Almond Avenue, 0.29 mile northwest of the project location. W.O. Hart Memorial Park, located at 701 South Glassell Street, is a public community park, located 0.73 mile east of the project location. About 0.41 mile south of the project location, in the City of Santa Ana, is Santiago Park (2535 North Main Street) and the Santiago Creek Bike Trail, a paved, multi-use trail along the Santiago Creek. The Plaza Orange United States Post Office, located at 308 West Chapman Avenue, is 0.74 mile northeast of the project location. The Orange Public Library is located over 1.00 mile from the project location. OCTA, which holds the OCTA Board of Directors meetings and includes a store for the public to purchase transit passes, is located across the street from the proposed New Medical Office Building. No other public facilities are within 0.25 mile of the project location.

Table 15-1 lists these facilities serving the public in the project area. Figure 15-1 shows the locations of these same facilities (City of Orange 2010a).

Table 15-1. Public Facilities within 0.25 Mile of the Project Area

Facility Name	Facility Type	Facility Address	Distance from Project Area
Orange Fire Station 5	Fire Department	1345 W Maple Avenue	0.65 mile north
Orange Fire Station 1	Fire Department	176 S Grand Street	0.92 mile northeast
Orange Fire Station 6	Fire Department	345 City Drive South	1.32 miles west
Orange Police Department Headquarters	Police Department	1107 N Batavia Street	1.80 miles north
West Orange Elementary School	School	243 S Bush Street	0.3 mile north
Little Scholars Academy of California	School	1510 W Almond Avenue	0.36 mile northwest
W.O. Hart Memorial Park	Community Park	701 S Glassell Street	0.73 mile east
Santiago Park	Community Park	2535 N Main Street	0.41 mile south
Santiago Creek Bike Trail	Trail	2535 N Main Street	0.41 mile south
Plaza Orange United States Post Office	U.S. Postal Service	308 W Chapman Avenue	0.76 mile northeast
Orange Public Library	Library	407 E Chapman Avenue	1.05 miles northeast
Orange County Transportation Authority	Government Agency	600 E Main Street	0.03 mile west

Notes: E = East; N = North; S = South; W = West
Source: City of Orange 2020f

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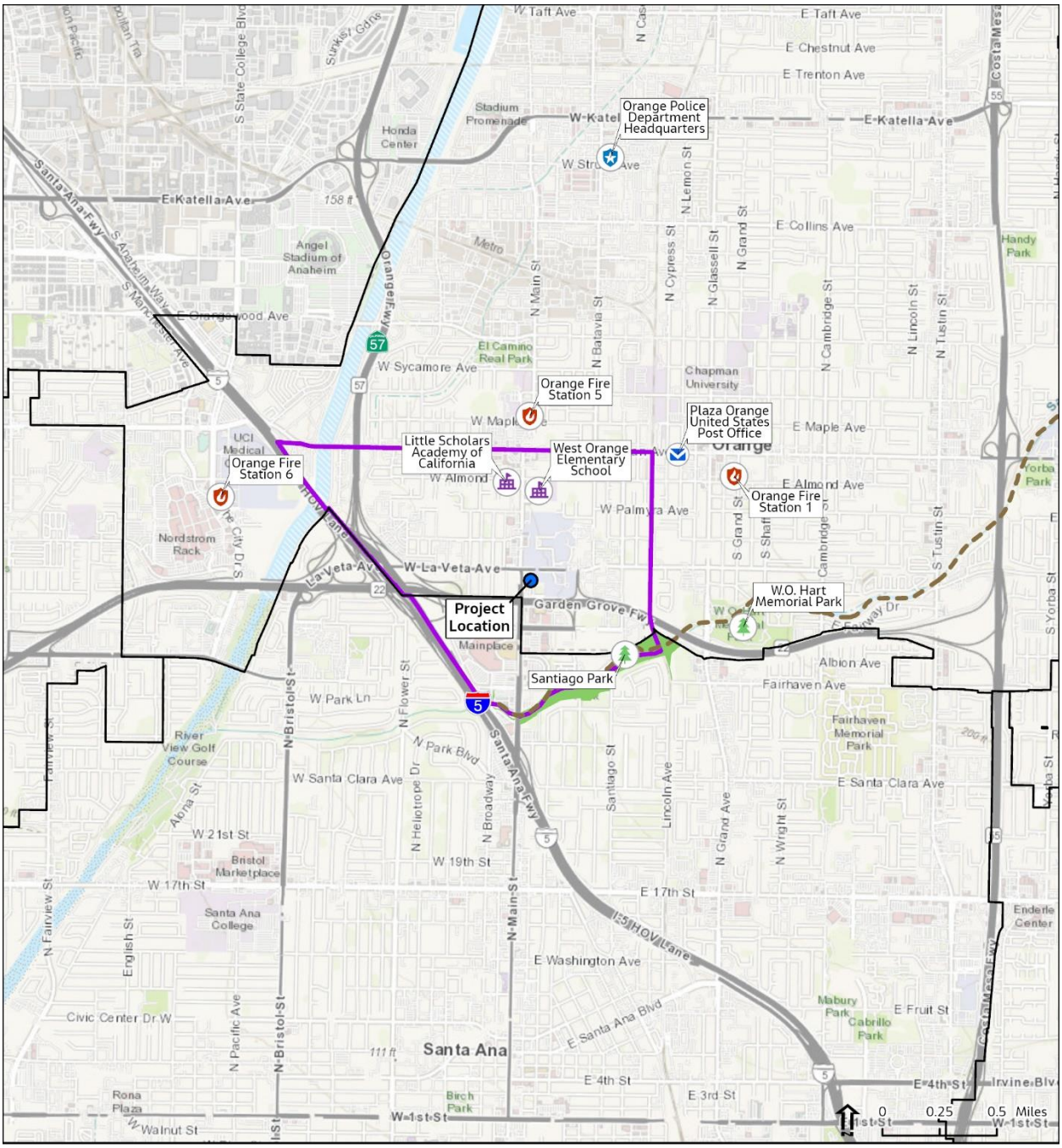


Children's Hospital of Orange County

Public Services Map

Data Source:
Orange County 2021
ESRI Basemap 2021

Figure 15-1

Impact Analysis

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?

The proposed CHOC expansion is in an urbanized environment with predominantly medical, professional office, and commercial uses. Construction and operation of the proposed Project would increase the number of people and vehicles at the Project site, thereby potentially increasing demand for fire protection services at the project site. It is not anticipated that minor increases in outpatient use or staffing associated with implementation of the proposed Project would result in a corresponding increase in service ratios or response times that would trigger the need for new or altered government facilities associated with fire protection.

Construction Impacts

Construction of the Project would not result in substantial adverse physical impacts associated with new or physically altered government facilities or require the need for new or physically altered government facilities. Construction of the Project would result in a temporary effect on response times associated with fire protection, resulting in a less than significant impact.

Operation Impacts

Project operations would not result in substantial adverse physical impacts associated with new or physically altered government facilities or require the need for new or physically altered government facilities. Project operations would potentially result in a temporary effect on response times associated with fire protection, resulting in a less than significant impact.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Less than Significant Impact (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

ii) Police protection?

The proposed CHOC expansion is in an urbanized environment with predominantly medical, professional office, and commercial uses. Construction and operation of the proposed Project

would increase the number of people and vehicles at the Project site, thereby potentially increasing demand for police protection services at the Project site. It is not anticipated that minor increases in outpatient use or staffing associated with implementation of the proposed Project would result in a corresponding increase in service ratios or response times that would trigger the need for new or altered government facilities associated with police protection.

Construction Impacts

Construction of the Project would not result in substantial adverse physical impacts associated with new or physically altered government facilities or require the need for new or physically altered government facilities. Construction of the Project would result in a temporary effect on response times associated with police protection, resulting in a less than significant impact.

Operation Impacts

Project operations would not result in substantial adverse physical impacts associated with new or physically altered government facilities or require the need for new or physically altered government facilities. Project operations would potentially result in a temporary effect on response times associated with police protection, resulting in a less than significant impact.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Less than Significant Impact (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

iii) Schools?

The proposed Project would increase the daytime population of patients and personnel within the CHOC campus. The project location includes no existing residential use nor are residential uses proposed as part of the Project. The expansion of the CHOC campus, as part of this proposed Project, would not increase or decrease demand for school services or construction of new facilities, or create temporary and permanent impacts that would affect a school student population and classroom facility. No impacts are anticipated with Project construction and operation.

Construction Impacts

Construction of the Project would not affect the demand for school services or facilities, and no impacts would occur.

Operation Impacts

Project operations would not affect the demand for school services or facilities, and no impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified

Significance Determination After Mitigation:

None made.

iv) Parks?

The proposed Project is in an urbanized environment with predominantly professional office and commercial uses. No public park is located within or adjacent to the project location. Two community parks closest to the project location, W.O. Hart Memorial Park and Santiago Park, are both located nearly a mile from the project location. The proposed Project would not create new housing or increase the existing residential population in the project area that would substantially increase or decrease recreational services or require the need for new facilities. Therefore, no impact is anticipated.

Construction Impacts

Construction of the Project would not affect the demand for park and recreational services or facilities, and no impacts would occur.

Operation Impacts

Project operations would not affect the demand for park and recreational services or facilities, and no impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

v) Other public facilities

A few facilities are present that serve the public in the project vicinity. The OCTA headquarters, located across the street from the project location, holds public meetings and includes a transit store to purchase bus passes. The Plaza Orange post office and Orange Public Library are located over one-half mile from the project location. Though Project construction and operation would increase the daytime population within the CHOC campus (such as construction workers, patients, and personnel), these impacts would not affect current demand for these existing public facilities, nor would it require construction of new public facilities. Therefore, no impacts are anticipated.

Construction Impacts

Construction of the Project would not affect the demand for other public services or facilities, including libraries; and no impacts would occur.

Operation Impacts

Project operations would not affect the demand for other public services or facilities, including libraries; and no impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

16. RECREATION

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Environmental Setting

The Project site is in an urbanized area mainly surrounded by buildings and parking lots; however, an existing green space is located approximately 0.2 mile east of the Project site, on La Veta Avenue. The West Orange Elementary School is approximately 0.3 mile north of the Project site on Bush Street, and the Sycamore Elementary School is approximately 0.8 mile north of the Project site on Main Street. The campuses of both of these schools include large green spaces. Other than these three green spaces within close proximity to the Project site, seven parks are within a 1-mile radius of the Project site and are listed among the recreational facilities in Table 16-1. These parks include Santiago Park Nature Reserve, W. O. Hart Memorial Park, Santa Fe Depot Park, Plaza Square Park, Camino Real Park, William W. Eldredge Park, and Morrison Park.

Table 16-1. Recreational Facilities Within One-Mile Radius of CHOC

Facility Name	Facility Type	Facility Address	Distance from Project Area
West Orange Elementary School	School	243 S Bush Street	0.3 mile north
Little Scholars Academy of California	School	1510 W Almond Avenue	0.36 miles northwest
W.O. Hart Memorial Park	Community Park	701 S Glassell Street	0.73 mile east
Santiago Park	Community Park	2535 N Main Street	0.41 mile south
Santiago Creek Bike Trail	Trail	2535 N Main Street	0.41 mile south
Santa Fe Depot Park	Community Park	184 N Atchison Street	0.71 mile northeast
Plaza Square Park	Community Park	S Glassell Street	0.81 mile northeast
Sycamore Elementary School	School	340 N Main Street	0.80 mile north
William W Eldredge Park	Cultural Feature Park	2933 Fallbrook Drive	0.66 mile southwest
Morrison Park	Community Park	2801 N Westwood Avenue	0.87 mile southwest
Camino Real Park	Community Park	400 N Main Street	0.92 mile north
Notes: N = North, S = South; W = West		Source: Google Earth 2020	

Impact Analysis

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The Project has the potential to increase the number of visitors to the project vicinity; therefore, it has the potential to increase the amount of existing park usage while families and friends visit patients of CHOC. However, park usage would be an incidental activity to their primary activity which is to use or visit CHOC. It is highly unlikely that visitors will be using existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No impacts are expected.

Construction Impacts

The increase in people in the area from the presence of construction personnel would be temporary. Construction personnel would come into the area to work and would not be expected to create a significant increase in park or recreational facility use in the area. Construction of the Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No impacts would occur.

Operation Impacts

People working at and visiting CHOC would not be expected to create a significant increase in park or recreational facility use in the area. Project operations would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

The Project is the construction of a building and expansion of a parking garage on the existing CHOC campus. The Project does not include any recreational facilities or construction or expansion of recreational facilities.

Construction Impacts

Construction of the Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. No impacts would occur.

Operation Impacts

Project operations would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No Impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

17. TRANSPORTATION

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Environmental Setting

The Project site is in a relatively dense urbanized area with well-developed transportation facilities. Most of the transportation infrastructure is focused on vehicular traffic, with major arterials providing connection to the regional freeway system.

The Project is located adjacent to Main Street and La Veta Avenue. State Route 22 is immediately south of the Project site. The major surface streets in the vicinity are as follows:

- Main Street is classified as a principal arterial (eight lanes divided) south of La Veta Avenue and major arterial (six lanes divided) north of La Veta Avenue
- La Veta Avenue is classified as a major arterial (six lanes divided)

CHOC parking areas are north and south of La Veta Avenue. Similarly, neighboring St. Joseph Hospital also has parking areas north and south of La Veta Avenue.

Pedestrian facilities are provided throughout the CHOC campus for patients, parents, visitors, and staff to access the buildings within the project site. Sidewalks are provided along Main Street, La Veta Avenue, and South Pepper Street; and crosswalks are provided at the intersections. Pedestrian activity is generally directly related to the area medical facilities. Two pedestrian bridges cross La Veta Avenue to provide the following access:

- One bridge connects the CHOC facilities located north and south of La Veta Avenue.
- A second bridge provides access between the St. Joseph Medical Plaza on the north and the medical building at the southwest corner of the La Veta Avenue/Pepper Street intersection.

No dedicated bicycle facilities (i.e., striped bike lanes) occur adjacent to the project site.

The Orange County Transportation Authority (OCTA) operates five bus routes in the project vicinity: Route 53 (stops on Main Street); Route 53X (no nearby stops, but the route travels on Main Street); Route 56 (stops on La Veta Avenue); Route 83 (stops on La Veta Avenue); and Route 453 (stops on Main Street).

Emergency response vehicle activity is substantial due to CHOC and St. Joseph Hospital emergency care medical facilities.

Plans and Ordinances

The Circulation and Mobility Element of the City's General Plan (City of Orange 2010a, Circulation and Mobility Element, revised 2015) outlines policies organized within six goals related to different transportation system elements: local circulation system; regional circulation system; public transportation; sidewalks, trails, and bikeways; parking facilities; and circulation system aesthetics. These goals cover the gamut of transportation modes, including transit, roadway, bicycle, and pedestrian facilities.

The City of Orange Municipal Code Chapter 17.34 Off-Street Parking and Loading addresses parking ratio requirements. The applicable requirements from Table 17.34.060.B (Required Number of Parking Spaces for Non-Residential Uses) are as follows:

- Hospitals (providing acute care, clinical, and surgical services): 1.5 spaces/patient bed
- Medical Center (providing acute care, clinical, surgical, teaching, research, and office services): 3 spaces/patient bed
- Medical Offices: 5 spaces/1,000 square feet gross floor area (GFA)
- Business and Professional (Office): 4 spaces/1,000 square feet GFA for the first 250,000 square feet, then 3 spaces/1,000 square feet

The General Plan includes Level of Service (LOS) criteria based on a requirement of LOS D or better for peak hour intersection conditions. The City's recently revised Traffic Impact Analysis Guidelines (City of Orange 2020j) call for analysis consistent with the General Plan.

The Orange County Congestion Management Program (CMP) is administered by OCTA. The CMP requires that designated intersections throughout the County be maintained at LOS E or better. It was last updated in November 2019. However, no CMP intersections or segments are located in the vicinity of the Project site (OCTA 2019).

Senate Bill 743, which was codified in Public Resources Code Section 21099, required the California Office of Planning and Research (OPR) to establish new CEQA Guidelines "for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." The new criteria were required to move away from vehicle delay and LOS and move toward more multimodal concepts "that may include, but are not limited to, vehicle miles traveled (VMT), vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated."

CEQA Guidelines § 15064.3, subdivision (b) Requirements

In 2018, Section 15064.3 was added to the CEQA Guidelines to reflect the provisions of Senate Bill 743. The section addresses both land use and transportation projects and broadly describes the methodology, including the potential for qualitative analysis, used to assess VMT. Agencies are given "broad discretion" to select the methodology for analysis or even apply a qualitative approach. The OPR prepared a Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018). The guidance addresses a variety of projects, with the recognition that the approach for evaluating impacts is necessarily project-specific.

The City of Orange Local CEQA Guidelines (2020) follow the CEQA Guidelines.

Impact Analysis

(a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Construction Impacts

Programs, plans, ordinances, and policies are generally focused on permanent conditions rather than construction activities. The Circulation and Mobility Element of the General Plan does not explicitly mention construction effects. Although not required to reduce this impact to a less than significant level, a construction Transportation Management Plan (TMP) could be developed to further reduce impacts. Construction of the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. No impact would occur.

Operation Impacts

Project operations were reviewed to determine potential conflicts with programs, plans, ordinances, or policies. In general, the built transportation network will be unchanged. In accordance with the City of Orange zoning requirements, the new Medical Office Building would require a minimum of 1,788 parking spaces. With the addition of up to 500 parking spaces from the Associate Parking Garage vertical expansion that is part of this Project, the Associate Parking Garage would have up to 2,779 total spaces, which would comply with the City's requirements.

Specific to the General Plan, the Project will not change the circulation system for vehicular traffic. Driveway access will be modified as the parking facilities are reconfigured, but the basic roadway network will remain unchanged for both vehicles and transit. Sidewalks will be modified for consistency with the new buildings but will retain and improve access and quality for pedestrians. Other trails and bikeways will not be affected. The modified parking facility will be designed to be consistent with Goal 5.0 of Circulation and Mobility Element of the City's General Plan to "Provide adequate parking to meet the needs of activity centers throughout the City."

Project operations would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. No impact would occur.

Although current CEQA guidelines specifically exclude LOS assessments from significance evaluations, the City's General Plan includes LOS criteria for intersections. Therefore, a LOS

assessment was conducted to determine if the Project meets the City's requirements for traffic operations.The *Children's Hospital of Orange County Transportation Study* (Jacobs 2022) evaluated the potential transportation effects associated with the proposed development changes. It was prepared in accordance with the City of Orange Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (City of Orange 2020j) and the Caltrans Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). There was extensive coordination with City of Orange Traffic Engineering and Community Development staff.

The study focused on LOS at 15 intersections and on-site parking analysis. Two intersections were deemed deficient (La Veta Avenue/Main Street, and Main Street/Town and Country Road/MainPlace Drive). Potential lane improvements at the intersections were reviewed with City staff. The City agreed that due to right-of-way constraints, there are no feasible improvements. The on-site parking analysis indicated that the CHOC campus would comply with the City's requirements. With the acceptance of this study, the City of Orange has found that the traffic analysis of the CHOC development changes is sufficient, and there would be no impacts with regards to consistency with programs, plans, ordinances, and policies.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) evaluated this question indirectly. The CEQA Guidelines at that time had a similar criterion addressing conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) that was addressed in the 2009 CHOC Master Plan EIR. The 2009 EIR conclusions are:

- No significant impact to pedestrian circulation on site and in the vicinity of the project site would be anticipated with development of the proposed project.
- The proposed project would not alter the existing or planned bicycle circulation within the immediate vicinity of the Project site. In addition, the proposed project would not affect the existing bicycle racks or bicycle storage facilities on the Project site. No impact would be anticipated.
- The proposed project would not result in a significant impact to the transit service. (EIR)

At the time of the previous studies, the CEQA Guidelines included a second relevant assessment to evaluate whether the project would "exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways." The 2009 EIR identified significant impacts at five intersections:

- Main Street/La Veta Avenue
- North Main Street/Edgewood Lane
- North Main Street/West Santa Clara Avenue
- North Main Street/Buffalo Avenue

- SR-22 eastbound ramps/West Town and Country Road

Note that only the Main Street/La Veta Avenue and the SR-22 eastbound ramps/West Town and Country Road are relevant to the current Project.

Mitigation Measures:

None identified. The 2009 EIR considered mitigation measures at the Main Street/La Veta Avenue intersection, but determined that "since this intersection would be constructed to its ultimate configuration and no additional improvements would be feasible due to right-of-way constraints, there is no feasible mitigation."

For the other four intersections, no assessment of mitigation measures was provided.

Significance Determination After Mitigation:

For the five intersections, the determination was that a significant unavoidable cumulative impact would result. The previous determination of overriding considerations and finding of fact would still apply to the proposed Project.

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

The City of Orange Local CEQA Guidelines note that a development project "would result in a significant project-generated VMT impact if the baseline and/or cumulative project-generated VMT per service population exceeds the City of Orange General Plan Buildout VMT per service population." In other words, VMT impacts are determined if there is an increase in average trip length (miles per trip) in the city over what would occur without the project. The details of the procedures for assessing VMT are left to the City's "Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment" (July 2020).

The Traffic Impact Analysis Guidelines state that projects can be screened from this assessment if they fall within a Transit Priority Area (TPA). A TPA is defined as "a half mile area around an existing major transit stop or an existing stop along a high-quality transit corridor." The OPR publication "Technical Advisory on Evaluating Transportation Impacts in CEQA" (OPR 2018) is also used as reference for assessing VMT. The guidelines are focused on land development and transportation improvement projects and their long-term effects on VMT, and they also provide screening thresholds for land use projects. It notes that "proposed CEQA Guideline Section 15064.3, subdivision (b)(1) states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of … an existing stop along a high quality transit corridor will have a less-than-significant impact on VMT."

Per Public Resources Code § 21155, a "high-quality transit corridor" means a corridor with fixed-route bus service with service intervals no longer than 15 minutes during peak commute hours. OCTA Route 53 runs along Main Street with headways of 8 to 15 minutes during the AM and PM peak periods. It has stops immediately north and south of La Veta Avenue, therefore meeting the definition of a high-quality transit corridor. The Project is therefore within a high-quality transit corridor.

Based on this assessment, VMT analysis would not be required for this Project, based on both the City of Orange's technical guidelines and OPR's advisory. The Project is presumed to have a less-than-significant impact on VMT.

Construction Impacts

Because the Project is within a high-quality transit corridor, in accordance with OPR and City guidelines, construction of the Project is presumed to have a less than significant impact on VMT.

Operation Impacts

Because the Project is within a high-quality transit corridor, in accordance with OPR and City guidelines, Project operation is presumed to have a less than significant impact on VMT.

Proposed Significance Determination

No New Impact/No Impact.

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

(c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed Project would result in the construction of new vehicular access driveways and general changes to access and circulation for CHOC facilities on the south side of La Veta Avenue.

Construction Impacts

Construction of the Project would have a temporary but less than significant effect on vehicular access on the CHOC campus. Some roadway changes and access may be modified, and implementation of a construction TMP would help to further reduce any effects. Construction of the Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), and no impact would occur.

Operation Impacts

Project operations would result in changes to access to parking facilities, but these will be designed to current standards. Therefore, while there will be changes, safety will be equal or better to current conditions. Project operations would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), and no impact would occur.

Proposed Significance Determination

No New Impact/No Impact.

Previous Significance Determination:

The maximum vehicle queuing length for the southbound left-turn lane at the intersection of South Main Street/CHOC Court would be 343 feet in the a.m. peak hour and 139 feet in the p.m. peak hour. Therefore, the maximum vehicle queue at the intersection would extend beyond the existing length of the southbound left-turn pocket that is 100 feet with a 40-foot transition. This would be considered a significant impact (EIR).

Mitigation Measures:

MM 4.11-1: Prior to the issuance of the certificate of occupancy or as defined in the Development Agreement, the Project Applicant shall provide for the improvements required to extend the southbound left-turn lane to a minimum of 300 feet in length. This improvement will be required to take into account that the southbound left-turn lane is currently designed as a back-to-back lane with the northbound left-turn lane at 550 South Main Street. This improvement shall be completed prior to the issuance of the certificate of occupancy for the medical office building.

Significance Determination After Mitigation:

With the incorporation of Mitigation Measure 4.11-1, the proposed Project's significant impact as a result of the maximum vehicle queuing length for the southbound left-turn lane at the intersection of South Main Street/CHOC Court extending beyond the existing length of the existing southbound left-turn pocket would be reduced to a less than significant level.

(d) Would the project result in inadequate emergency access?

Given that the proposed Project is a medical center, emergency access will be maintained as a basic and essential function of the facility.

Construction Impacts

Construction of the Project would maintain adequate access. During construction, safety measures could be incorporated into a construction TMP to further minimize safety issues. Construction of the Project would not result in inadequate emergency access. No impact would occur.

Operation Impacts

Project operations would not affect emergency access, which will remain at the highest level due to the nature of the facilities. Project operations would not result in inadequate emergency access. No impact would occur.

Proposed Significance Determination

No New Impact/No Impact.

Previous Significance Determination:

Construction: During the construction activities, no changes in the circulation patterns on the adjacent roadways would occur, and the intersections in the project vicinity and the adjacent roadway segment of La Veta Avenue would continue to operate at an adequate level of service. The construction activities on the portion of the project site to the north of La Veta Avenue have the potential to result in inadequate emergency access due to the lane closures and the addition of construction-related vehicles traveling on the adjacent roadways. This would be considered a significant impact. However, no impact was identified for the area south of La Veta Avenue which is portion of the previous EIR analysis that is relevant to this checklist (EIR).

Operation: No significant impact would occur during the ongoing operation of the proposed project (EIR).

Mitigation Measures:

MM 4.11-2: Prior to the issuance of the first demolition permit, the Project Applicant shall submit to the City of Orange Traffic Engineer, City of Orange Police Chief, and City of Orange Fire Chief, or their designees, a Construction Phase Emergency Access Plan for their review and approval. The Construction Phase Emergency Access Plan shall include the location of all existing access points from the adjacent public streets and the on-site emergency access areas provided within 150 feet of all construction activities.

Significance Determination After Mitigation:

With the incorporation of Mitigation Measure MM 4.11-2, the proposed Project's potential impact related to inadequate emergency access during construction activities north of La Veta Avenue would be reduced to a less than significant level.

18. TRIBAL CULTURAL RESOURCES

	New Potentially Significant Impact	New Mitigation Is Required	No New Impact/No Impact	Reduced Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Environmental Setting

No known California Register of Historical Resources (CRHR)-listed or -eligible tribal resources or historical resources significant at the local level as defined in Public Resources Code Part 21074 have been identified during previous surveys, construction, or ground-disturbing activities at the project site. Sensitivity maps for Orange County show the project site as low sensitivity for prehistoric or historic resources that could also be identified as tribal resources (City of Orange 2010a, Cultural Resources and Historic Preservation; PAR Environmental Services Inc. 2006); however, the City of Orange is within the ethnographic territory of the Gabrieleño Indians of California, which encompasses present-day Los Angeles and Orange Counties as well as several offshore islands. Prehistorically and historically, the Gabrieleño would have utilized natural resources across the Orange County area, particularly where water sources were available. The nearest documented Gabrieleño settlements to the project site were *Hotuuknga*, which was situated on the north side of the Santa Ana River and upstream from the present-day community of Olive (approximately 5 miles to the northeast) and a small Native American camp on the north side of Santiago Creek just west of the Glassell Street crossing (situated approximately 0.8 mile to the southeast) (Brigandi 1997, as quoted in PAR Environmental Services Inc. 2006; Greene and Curwen 2019).

Impact Analysis

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is

geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)).

No known tribal resources that are listed or eligible for listing in the CRHR or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) have been identified within the project site during previous surveys and ground-disturbing activities. Based on a records search at the SCCIC, the only previously recorded tribal resource in the vicinity of the project site is a prehistoric isolate located approximately 0.3-mile to the southwest. The isolate was removed from its location during archaeological monitoring and is now in the possession of the Gabrieleño Band of Mission Indians-Kizh Nation. Given the extent of the built environment and hardscaped surfaces within the project site's direct APE as well as the surrounding dense urban landscape (indirect visual APE), as shown in Figure 5-1, the potential for sites, features, places, cultural landscapes, and objects with cultural value to a California Native American tribe is extremely low. Therefore, activities at the Project would not result in a substantial adverse change in the significance of a tribal cultural resource.

Construction Impacts

A tribal cultural resource is defined in Public Resources Code § 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place; or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). No tribal cultural resources meeting this definition have been identified within the project site, therefore, no impacts would occur.

Operation Impacts

Project operations would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place; or object with cultural value to a California Native American tribe that is listed or eligible for listing in the CRHR or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). No tribal cultural resources meeting this definition have been identified within the project site; therefore, no impacts would occur.

Proposed Significance Determination

No New Impact/No Impact.

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Proposed Significance Determination After Mitigation:

No New Impact/No Impact.

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

Given the extent of the built environment, hardscaped surfaces, and surrounding landscape, the potential for sites, features, places, cultural landscapes, and objects with cultural value to a California Native American tribe is extremely low; however, a search of the Native American Heritage Commission's (NAHC's) Sacred Lands File was requested on September 24, 2020, to determine the sensitivity of the project site for tribal resources. The NAHC responded on September 25, 2020, with a finding that no cultural resources were found within the project area (Appendix A). Because public noticing under CEQA is not required for this EIR addendum, AB 52 consultation requirements are not applicable, and the City did not conduct formal, government-to-government consultation with tribes.

Construction Impacts

Construction of the Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. Although the potential for intact surface or subsurface resources of value to Native Americans to be discovered during construction activities is low, the presence of subsurface resources cannot be easily predicted, and Native American resources could be present at depths greater than 4 feet. However, implementation of TCP PDF-1 would preclude impacts to previously undiscovered Native American resources during construction. No impacts from construction would occur.

Operation Impacts

Project operations would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. No tribal cultural resources meeting this definition have been identified within the project site. No impacts from operations would occur.

Proposed Significance Determination

No New Impact/No Impact.

Previous Significance Determination:

None made. The 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) did not evaluate this question since it was not included in the CEQA Guidelines current at that time.

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

19. UTILITIES AND SERVICE SYSTEMS

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

Environmental Setting

The project site is within a developed urban area and is served by existing potable water, sanitary sewer, and storm water conveyance systems that are owned by the City of Orange. Electricity and natural gas in the City are provided by independent utility companies. Electricity is provided by Southern California Edison, and natural gas by Southern California Gas Company (City of Orange 2010a, Infrastructure Element).

The City of Orange obtains approximately 75 percent of its water from ground water sources via 12 active wells. The ground water basin is managed by the Orange County Water District. The City of Orange also imports water from the Colorado River and Northern California from the Metropolitan Water District of Southern California through the Municipal Water District of Orange County (City of Orange 2020b). Institutional/government water use accounts for 2 percent of potable water use in the City (City of Orange 2015). In accordance with the Urban Water Management Planning Act (Act) the City of Orange has prepared and adopted an Urban Water Management Plan (UWMP) (City of Orange 2015) and filed it with the California Department of Water Resources. The UWMP provides a detailed

summary of present and future water resources and demands within City's service area and assesses the City's water resource needs. Specifically, the UWMP provides water supply planning for a 25-year planning period and identifies water supplies needed to meet existing and future demands. The demand analysis must identify supply reliability under three hydrologic conditions: a normal year, a single-dry year, and multiple-dry years. In its UWMP, the City documented that it is capable of meeting water demands during normal, single-dry, and multiple-dry years from 2020 through 2040.

Sanitary wastewater collected by the City sanitary sewer system discharges to regional trunk lines owned by Orange County Sanitation District (OCSD). OCSD is responsible for the treatment of residential, commercial, and industrial sewage in the City of Orange. Collected effluent is treated at Reclamation Plant No. 1 in Fountain Valley or Treatment Plant No. 2 in Huntington Beach, which are owned and operated by OCSD (City of Orange 2010a, Infrastructure Element). In 2018-2019 these two plants combined received an estimated average daily flow of 185 million gallons of wastewater (OCSD 2020).

The City's trash, recyclables, and organics (green waste and food waste) are collected by CR&R Incorporated, a private service provider contracted by the City (City of Orange 2020d). CR&R Incorporated collects both solid and green waste (grass clippings, tree and shrub clippings), and items for recycling. Most waste is taken to one of the three landfills in Orange County: Olinda Alpha in Brea, the Frank R. Bowerman Landfill in Irvine, and the Prima Deshecha Landfill in San Juan Capistrano, all of which are owned and operated by the Orange County Waste and Recycling (OCWR) Department (City of Orange 2010a, Infrastructure Element). These landfills have a combined permitted daily refuse limit of 23,500 tons (Orange County Grand Jury 2018) and as of 2018 had actual per day tonnage of 16,900 tons. As of 2018, the Olinda Alpha Landfill was at 82 percent capacity, the Frank R Bowerman Landfill was at 33 percent capacity, and the Prima Deshecha Landfill was at 1 percent capacity.

Assembly Bill (AB) 939, the Integrated Waste Management Act of 1989, requires each city or county plan to include an implementation schedule which demonstrates diversion of solid waste from landfill or transformation facilities through source reduction, recycling, and composting activities. Materials generated from construction projects were to meet a diversion of 50 percent from landfills. This was amended by AB 341 in 2011, which raised the solid waste diversion goal to 75 percent by 2020 (Orange County Grand Jury 2018). The City of Orange requires that projects generating construction and demolition meet a diversion goal of 65 percent of all debris from the landfill. To meet reporting obligations, the City of Orange requires individuals pulling permits for projects resulting in construction and demolition debris to provide information on where the materials will be taken and the percentage of materials diverted from the landfill (City of Orange 2020k).

Impact Analysis

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

Demolition of structures and construction of new structures may require expansion and relocation of some of the existing utilities on the Project site to remove utility connections to the removed buildings and connect the new buildings to the existing utility systems that are present on the site. All removal of and relocation or installation of new or expanded utility systems would occur within the Project area. These activities would occur as part of overall project activities associated with structure removal and construction. No new or expanded off-

site water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities are proposed.

Construction Impacts

As the Project would be connected to existing utilities on site and would not require any new or expanded off-site utility connections, construction of the Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. No impacts would occur.

Operation Impacts

As the Project would be connected to existing utilities on-site and would not require any new or expanded off-site utility connections, Project operations would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. No impacts would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The previous CEQA analysis addressed:

- Water: Until verified by the appropriate fire authorities based on their review of improvement plans, the proposed project would have the potential to result in a significant impact related to the provision of adequate fire flow to the project site (EIR).

- Wastewater: No significant impact to wastewater/sewer conveyance or wastewater treatment facilities (EIR).

Electric power, natural gas, and telecommunications facilities were not addressed in the 2008 Initial Study Checklist (Vista Community Planners 2008a) and 2009 CHOC Master Plan EIR (City of Orange 2009a) as these were not included in the CEQA Guidelines current at that time.

Mitigation Measures:

In order to reduce potential impacts to the City's water system, the following mitigation measure was incorporated into the project MMRP:

MM 4.12-1 Prior to December 31, 2009, the Applicant or developer shall submit to the City of Orange Water Division, a water improvement plan for all proposed water improvements including fire hydrants, fire services, domestic water service, landscape irrigation, and any other proposed improvements that may impact the City's water system and water service to the project site. The water improvement plan shall contain a construction schedule demonstrating that all public water construction would be completed prior to the issuance of a certificate of occupancy by the Office of Statewide Health Planning and Development (OSHPD) for Phase 1 construction. Approval of the water improvement plan is contingent on the Applicant or developer demonstrating the adequacy of the water system to meet

the proposed project's water demands and fire flow requirements without reducing existing service levels or impacting any existing water supply and conveyance facilities. If the preparation and/or review of the water improvement plans concludes that additional off-site improvements will be required, such improvements shall be completed prior to issuance of the certificate of occupancy by OSHPD for Phase 1 construction.

Significance Determination After Mitigation:

Water: Less Than Significant With Mitigation.

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

In its Urban Water Management Plan the City of Orange documented that it is capable of meeting water demands during normal, single-dry and multiple-dry years from 2020 through 2040 (City of Orange 2015).

Construction Impacts

As the City of Orange documented that it is capable of meeting water demands during normal, single-dry and multiple-dry years from 2020 through 2040, construction of the Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, single-dry, and multiple-dry years. No impact would occur.

Operation Impacts

As the City of Orange documented that it is capable of meeting water demands during normal, single-dry and multiple-dry years from 2020 through 2040, Project operations would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, single-dry, and multiple-dry years. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

The City would have sufficient water supplies available to serve the proposed project from their existing entitlements and resources, and no significant impact would occur (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

The project site is currently served by City of Orange sewer lines that discharge to Orange County Sanitation District wastewater treatment plants.

Construction Impacts

Construction activities would not result in wastewater being discharged to the sanitary sewer system, and therefore would have no effect on wastewater treatment plants. No impact would occur.

Operation Impacts

Project operations would result in some increase in wastewater generation due to increased building staffing and outpatient treatment capacities of the proposed Medical Office Building. This increase in wastewater generation would be minimal. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No significant impact would be anticipated (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Solid waste from project demolition, construction, and operation would be disposed of in Orange County landfills and recycling facilities.

Construction Impacts

Construction activities would result in solid waste from demolition of structures. Demolition of existing structures including buildings, parking structures and lots, and other paved surfaces would generate a one-time estimated 120,000 cubic yards of solid waste over the six-year construction time frame. In compliance with City of Orange requirements, the project proponent would report on the percentage of construction and demolition debris that would be recycled and diverted from disposal in a landfill to achieve the required 65-percent reduction in landfill disposal. After recycling and diversion, solid waste generated during demolition and construction would average less than 50 tons per day, which would be less than 0.5 percent of Orange County landfills combined total permitted daily refuse limit of 23,500 tons. No significant impact would occur.

Operation Impacts

The proposed Project would not result in a change in types of activities from those currently occurring. Types of solid waste quantities generated would not change. Quantities of solid waste generated may increase slightly due a net increase in administrative facilities and from an increase in patient capacity, but this minimal increase would not be expected to be in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No significant impact would be anticipated (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The development of the Project would result in a short-term increase in generation of solid waste due to construction and demolition activities and also result in a long-term minor increase in generation of solid waste due to the expansion of facilities.

Construction Impacts

In compliance with City of Orange requirements, the project proponent would report on the percentage of construction and demolition debris recycled and diverted from disposal in a landfill to achieve the required 75 percent reduction in landfill disposal. No impact would occur.

Operation Impacts

The proposed Project would not result in a change in types of activities from those currently occurring. Types of solid waste quantities generated would not change. Quantities of solid waste generated may increase slightly due a net increase in administrative facilities and from an increase in patient capacity, but this minimal increase would not be expected to in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. No impact would occur.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact is anticipated (EIR).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

20. WILDFIRE

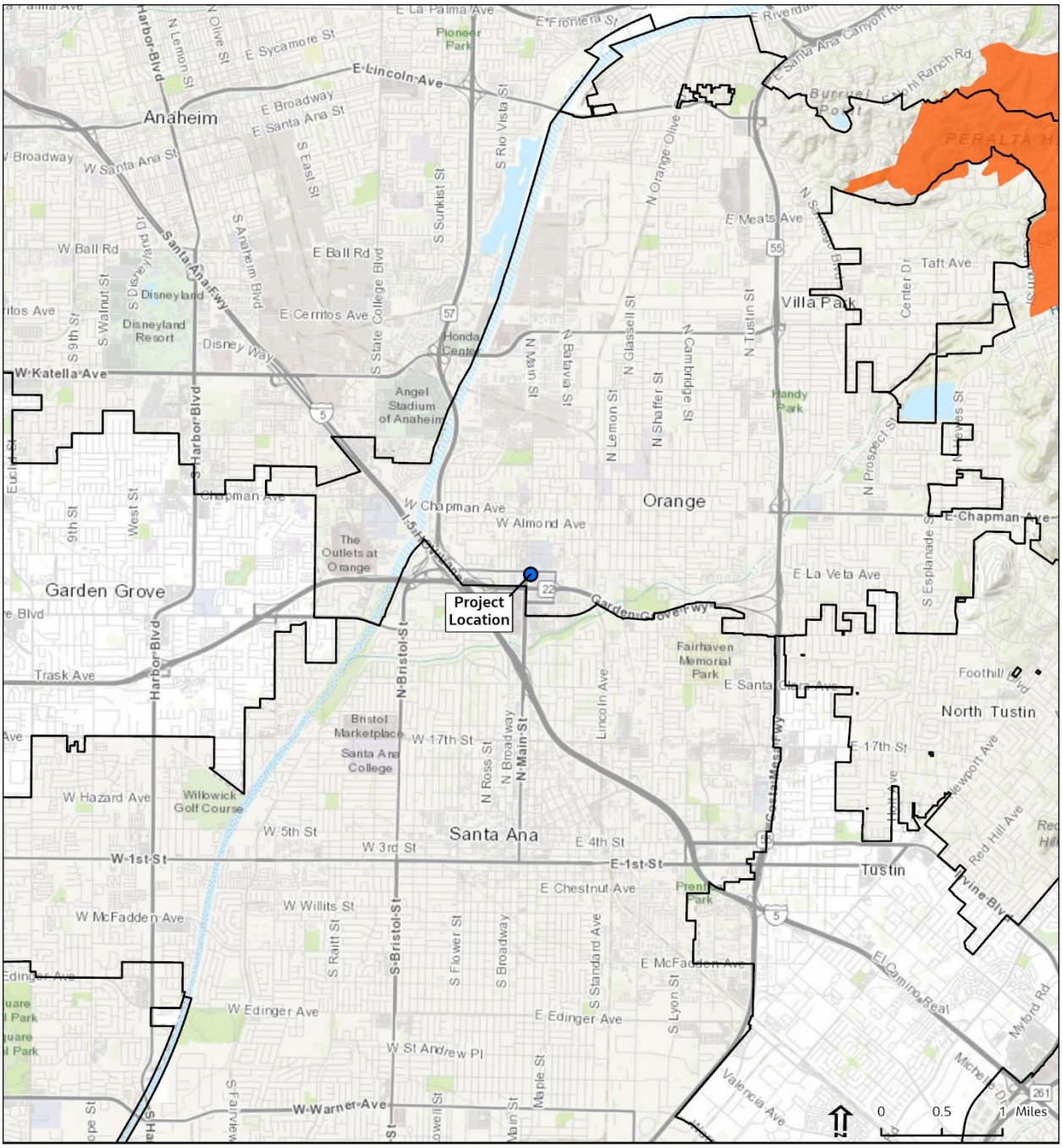
	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Environmental Setting

Based on review of the California Fire Hazard Severity Zone Viewer (State of California 2020b) the CHOC campus is not in a State Responsibility Area and is not located within a very high severity fire zone. Refer to Figure 20-1.

Impact Analysis

As the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, questions in Items a) through d) of this Section are not applicable to the Project, and no further analysis is warranted. No impact would occur.



Children's Hospital of Orange County

Wildfire Hazard Map

Very High Hazard Zone

City Boundaries

Data Sources:
Cal Fire 2020
ESRI Basemap 2020

Figure 20-1

21. MANDATORY FINDINGS OF SIGNIFICANCE

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

Environmental Setting

The environmental setting for individual resources can be found within the individual resource analyses

Impact Analysis

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

Construction Impacts

Implementation of BIO-PDF-1, BIO-PDF-2, and BIO PDF-3 would preclude disturbance of nesting birds, including one special status species (the peregrine falcon). Implementation of CUL PDF-1, CUL PDF-2, CUL PDF 3 and TCP PDF 1 would preclude impacts to subsurface archaeological, and

tribal resources; and human remains, including those interred outside dedicated cemeteries. Construction of the Project would not, therefore, have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

Operation Impacts

Project operations are not expected to disturb nesting birds, including the one identified special status species (the peregrine falcon). Project operations would not disturb archaeological resources, tribal resources, or human remains. Operation of the Project would not, therefore, have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

No impact (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

With the exception of Greenhouse Gas Emissions and Transportation, all proposed Project-related impacts have been determined to be less than significant with or without compliance with regulatory requirements or mitigated to a level considered less than significant with the incorporation of mitigation measures from the MMRP. As discussed in Section 8, Greenhouse Gas Emissions and Section 17, Transportation, significant impacts have been identified; however, no new impacts from the 2009 EIR would occur, and the associated impacts would be individually limited and not considered cumulatively significant when added to six identified active, entitled, or future projects within 1 mile of the proposed project site. None of the six identified projects are adjacent to the project site:

- **Construction of a new Chick-fil-A Drive-Thru Restaurant** (IS/MND, City of Orange, December 2019). This Project site is situated at 202 South Main Street in the City of Orange and approximately 0.42 mile northeast of the Project. The Chick-fil-A has not yet been constructed; however, it is expected to be completed and operational by the time the Project begins construction in April 2022.

- **Construction of Park Plaza Memory Care** (MND City of Orange, May 2020). This project site is situated at 574 South Glassell Street in the City of Orange and approximately 0.75 mile east of the Project. The existing Yen Ching Restaurant will be demolished, and an expansion of the existing Park Plaza Memory Care at 620 South Glassell Street will be completed on that site. Construction of the expansion has not yet begun; however, it is expected to be completed by the time the CHOC Project begins construction in April 2022.

- **2700 North Main Residential Development** (City of Santa Ana, Planning and Building Agency, 2020, August 2019, Development Project Review). This proposed project site is situated at 2700 North Main Street in the City of Santa Ana and approximately 0.47 mile southwest of the Project. As of August 2019, the project is under the City's Development Project Review and involves construction of a five-story apartment building over four levels of parking at the northwest corner of Main Street and East Memory Lane. The project is not currently under construction and may overlap with construction of the Project.

- **MainPlace Mall Transformation Project** (City of Santa Ana, Planning and Building Agency, 2020 May 2019, Addendum to 1983 EIR). This project site is situated at 2800 North Main Street in the City of Santa Ana and approximately 0.3 mile southwest of the Project at the southwest intersection of North Main Street and Main Place Drive. This large project would transform the existing MainPlace Mall through the construction of up to 1,900 residential units, 400 hotel rooms, as well as commercial and office space. The Santa Ana City Council approved the project in June 2019; however, a date for the start of the construction of the project has not yet been set. Depending on the construction start date, this project could overlap with the construction of the Project.

- **Town and Country Assisted Living** (City of Santa Ana, Planning and Building Agency, 2020). This project site is situated at 555 East Memory Lane in the City of Santa Ana and approximately 0.46 mile southeast of the Project. The project is listed as Entitled, is currently under construction, and is expected to be completed by the time the Project begins construction in April 2022.

- **Magnolia at the Park Residential Development** (City of Orange, August 2020, Final 2018 EIR with a Revised Project Description, October 2019). This project site is situated at 2525 North Main Street, Santa Ana and is approximately 0.66 mile south of the Project. A revised project description is currently under review which reduces the original number of units from 517 to 256 staggered height apartments with a five-level parking structure and adjacent surface parking at southeast intersection of North Main Street and Santiago Creek Bike Trail. The project remains under review with no proposed construction start set. Depending on the construction start date, this project could overlap with the construction of the Project.

Construction Impacts

None identified.

Operation Impacts

None identified.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Potentially Significant Impact to Aesthetics, Air Quality, Noise, Land Use and Planning, Population and Housing, and Transportation and Traffic (Checklist).

Mitigation Measures:

None identified.

Significance Determination After Mitigation:

None made.

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

No significant impacts were identified in the evaluation prepared throughout this IS Checklist, therefore, the Project would not cause substantial adverse effects on human beings, either directly or indirectly.

Proposed Significance Determination:

No New Impact/No Impact.

Previous Significance Determination:

Potentially Significant Impact to Air Quality, Hazards and Hazardous Materials, and Noise (Checklist).

Mitigation Measures (EIR):

Air Quality: MM 4.2-1; MM 4.2-2; MM 4.2-3; MM 4.2-4; MM 4.2-5.

Greenhouse Gas Emissions: MM 4.2-4; MM 4.2-5.

Hazards and Hazardous Materials: MM 4.5-1; MM 4.5-2.

Noise: MM 4.8-1.

Significance Determination After Mitigation:

None made.

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M.E. Civil Engineering (Transportation), University of California Berkeley, CA
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City of Orange
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Robert Garcia, Senior Planner

Native American Heritage Commission
Andrew Green, Cultural Resources Analyst

Native American Tribes
Gabrieleno Band of Mission Indians – Kizh Nation - Andrew Salas, Chairman

Gabrielino/Tongva Nation - Samuel Dunlap, Cultural Resources Director

San Gabriel Band of Mission Indians - Anthony Morales, Chief

Torres Martinez Desert Cahuilla Indians - Michael Mirelez, Cultural Coordinator

South Central Coast Information Center, University of California, Fullerton
Michelle Galaz, Assistant Coordinator

MITIGATION MONITORING AND REPORTING PROGRAM

(Refer to City's Mitigation Monitoring Program template on the City's website)

APPENDIX A

NATIVE AMERICAN HERITAGE COMMISSION RESPONSE

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Children's Hospital of Orange County (CHOC) Project

County: Orange County

USGS Quadrangle Name: Orange Quadrangle - see attached map

Township: N/A **Range:** N/A **Section(s):** N/A

Company/Firm/Agency: Jacobs Engineering - Paige Peyton, PhD, Principal Investigator

Street Address: 541 Golden West Drive

City: Redlands, CA **Zip:** 92373

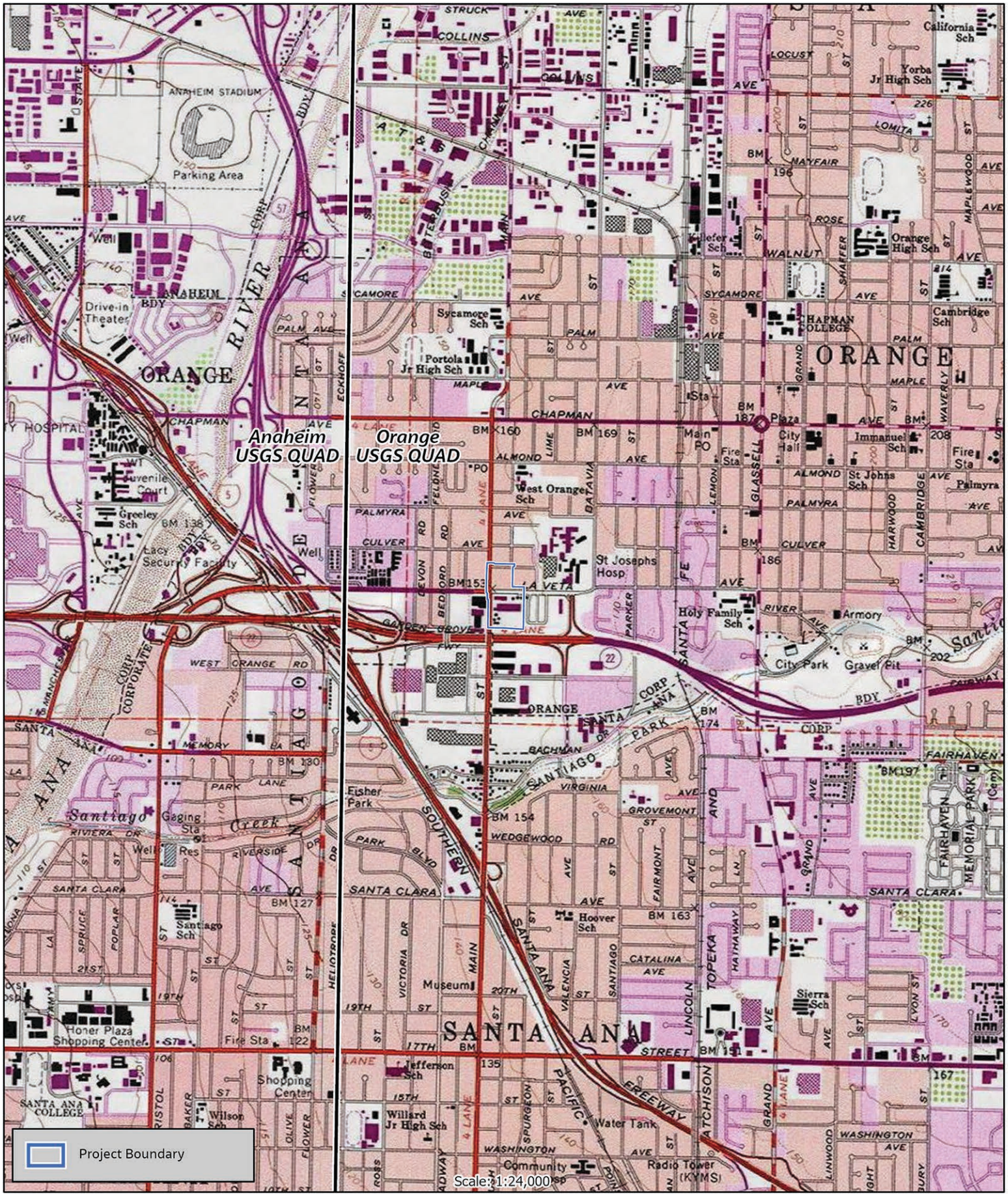
Phone: 909.307.8547

Fax: None

Email: paige.peyton@jacobs.com

Project Description:

Proposed expansion of the CHOC complex within the project site shown on the attached figure (small blue polygon). Project includes demolition of existing facilities, construction of new facilities, and expansion of parking facilities. The entire project site is heavily disturbed from previous construction and operational use and is almost entirely hardscaped.



Latitude: 33.78001
Longitude: -117.866568
USGS Quad: Orange
Map Date: 9/4/2020

Children's Hospital of Orange County
1201 W. La Veta Ave.
Orange, CA 92868

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

September 25, 2020

Paige Peyton
Jacobs Engineering

Via Email to: paige.peyton@jacobs.com

Re: Children's Hospital of Orange County (CHOC) Project, Orange County

Dear Ms. Peyton:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Orange County
9/25/2020

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 — Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 — Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 — Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street — Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

Juaneno Band of Mission Indians Acjachemen Nation - Belardes
Matias Belardes, Chairperson
32161 Avenida Los Amigos — Juaneno
San Juan Capisttrano, CA, 92675
Phone: (949) 293 - 8522
kaamalam@gmail.com

Juaneno Band of Mission Indians Acjachemen Nation - Belardes
Joyce Perry, Tribal Manager
4955 Paseo Segovia — Juaneno
Irvine, CA, 92603
Phone: (949) 293 - 8522
kaamalam@gmail.com

Pala Band of Mission Indians
Shasta Gaughen, Tribal Historic Preservation Officer
PMB 50, 35008 Pala Temecula Rd. — Cupeno, Luiseno
Pala, CA, 92059
Phone: (760) 891 - 3515
Fax: (760) 742-3189
sgaughen@palatribe.com

Santa Rosa Band of Cahuilla Indians
Lovina Redner, Tribal Chair
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosacahuilla-nsn.gov

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 — Cahuilla, Luiseno
San Jacinto, CA, 92581
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Soboba Band of Luiseno Indians
Scott Cozart, Chairperson
P. O. Box 487 — Cahuilla, Luiseno
San Jacinto, CA, 92583
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Children's Hospital of Orange County (CHOC) Project, Orange County.