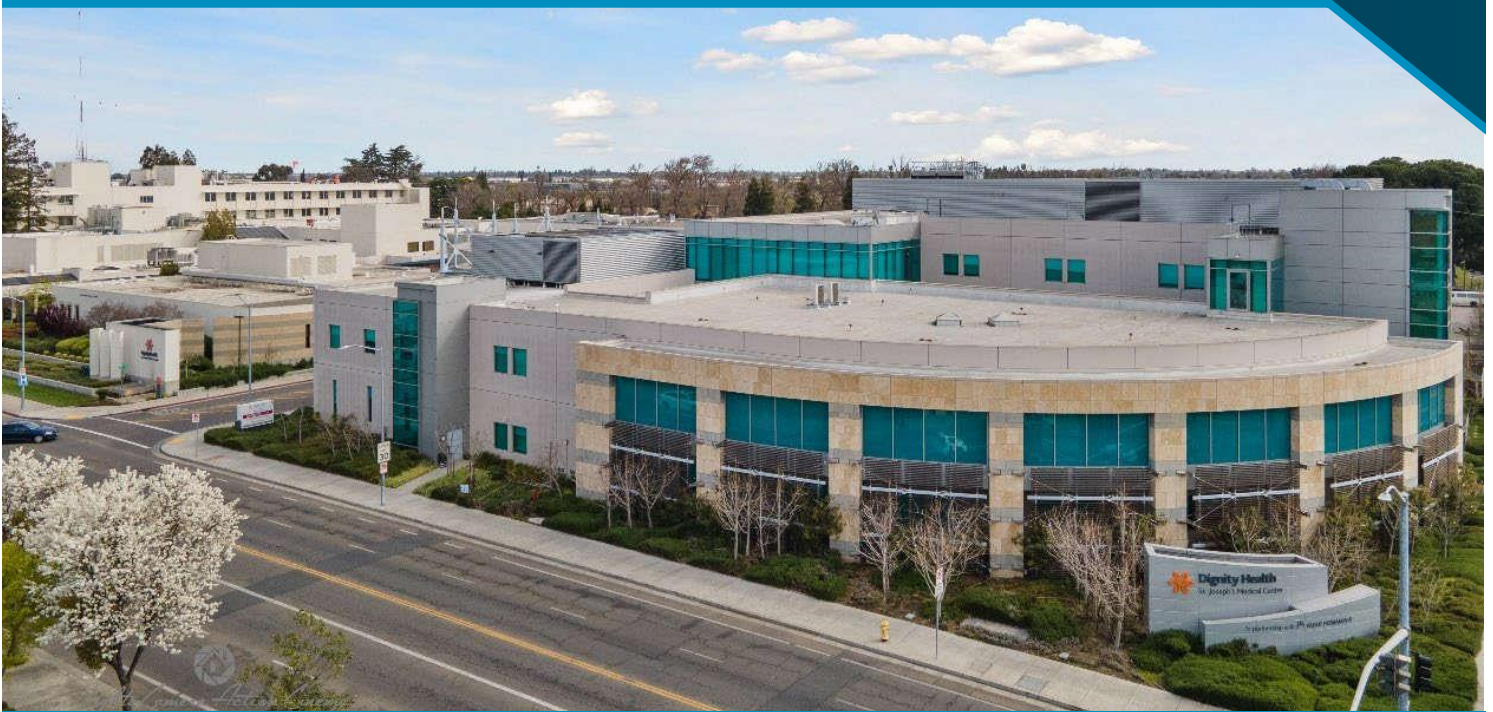


DRAFT ENVIRONMENTAL IMPACT REPORT

# ST. JOSEPH'S MEDICAL CENTER HOSPITAL EXPANSION PROJECT

SCH# 2021120439  
April 2023



Prepared for:



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Stockton, California 95202  
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Prepared by:

**DUDEK**

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Sacramento, California 95811



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Draft Environmental Impact Report

# **St. Joseph's Medical Center Hospital Expansion Project**

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**APRIL 2023**

*Prepared for:*

**CITY OF STOCKTON**

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# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition   |
|----------------------|--|
| ACM                  | asbestos-containing material   |
| ADA                  | Americans with Disabilities Act  |
| AERMOD               | American Meteorological Society/Environmental Protection Agency Regulatory Model |
| BMP                  | best management practices  |
| CAAQS                | California Ambient Air Quality Standards   |
| CAFE                 | corporate average fuel economy   |
| CAPCOA               | California Air Pollution Control Officers Association                            |
| CARB                 | California Air Resources Board   |
| CBC                  | California Building Code   |
| CDD                  | Community Development Director   |
| CERCLA               | Comprehensive Environmental Response, Compensation, and Liability Act            |
| CEQA                 | California Environmental Quality Act   |
| CG                   | Commercial, General  |
| CO                   | Commercial, Office   |
| CO*                  | carbon monoxide  |
| CRHR                 | California Register of Historic Resources  |
| CUPA                 | Certified Unified Program Agency   |
| dB                   | decibel  |
| DPM                  | diesel particulate matter  |
| DTSC                 | Department of Toxic Substances Control   |
| EIR                  | Environmental Impact Report  |
| EMS                  | emergency medical service  |
| EOP                  | Emergency Operations Plan  |
| EPA                  | Environmental Protection Agency  |
| ESA                  | Environmental Site Assessment  |
| EV                   | electric vehicle   |
| FAA                  | Federal Aviation Administration  |
| FHSZ                 | fire hazard severity zone  |
| GAMAQI               | Guidance for Assessing and Mitigating Air Quality Impacts                        |
| GHG                  | greenhouse gas   |
| gpm                  | gallons per minute   |
| HAP                  | hazardous air pollutant  |
| HARP2                | Hotspots Analysis and Reporting Program Version 2                                |
| HBW                  | home-based work  |
| HCAI                 | California Department of Health Care Access and Information                      |
| HMBP                 | Hazardous Materials Business Plan  |
| HRA                  | Health Risk Assessment   |
| HSC                  | California Health and Safety Code  |
| HVAC                 | heating, ventilation, and air conditioning                                       |



ACRONYMS AND ABBREVIATIONS

| Acronym/Abbreviation | Definition  |
|----------------------|---|
| Hz                   | hertz   |
| I-5                  | Interstate 5                                      |
| IS                   | Initial Study                                     |
| ISR                  | Indirect Source Review                            |
| kBtu                 | thousand British thermal units                    |
| LBP                  | lead-based paint                                  |
| LHMP                 | Local Hazard Mitigation Plan                      |
| LOS                  | level of service                                  |
| LRA                  | Local Responsibility Area                         |
| LTS                  | less than significant                             |
| MDP                  | Master Development Plan                           |
| MMRP                 | Mitigation Monitoring and Reporting Program       |
| MWMA                 | Medical Waste Management Act                      |
| MWMP                 | medical waste management plan                     |
| NAHC                 | Native American Heritage Commission               |
| NAAQS                | National Ambient Air Quality Standards            |
| NHSTA                | National Highway Traffic Safety Administration    |
| NPL                  | National Priorities List                          |
| NO <sub>2</sub>      | nitrogen dioxide                                  |
| NOP                  | Notice of Preparation                             |
| NO <sub>x</sub>      | oxides of nitrogen                                |
| NRHP                 | National Register of Historic Places              |
| O <sub>3</sub>       | ozone   |
| OEHHA                | Office of Environmental Health Hazards Assessment |
| OPR                  | Office of Planning and Research                   |
| OSHA                 | Occupational Safety and Health Administration     |
| PCB                  | Polychlorinated Biphenyl                          |
| PF                   | Public Facilities                                 |
| PHEV                 | plug-in hybrid electric vehicle                   |
| PM                   | particulate matter                                |
| ppm                  | parts per million                                 |
| PPV                  | peak particle velocity                            |
| PRC                  | Public Resources Code                             |
| PS                   | potentially significant                           |
| psi                  | pounds per square inch                            |
| RCMP                 | Regional Congestion Management Plan               |
| RCRA                 | Resource Conservation and Recovery Act            |
| REC                  | recognized environmental condition                |
| RL                   | Residential, Low Density                          |
| RM                   | Residential, Medium Density                       |
| RMS                  | root-mean-square                                  |
| ROG                  | reactive organic gases                            |
| ROW                  | right-of-way                                      |

ACRONYMS AND ABBREVIATIONS

| Acronym/Abbreviation | Definition  |
|----------------------|---|
| RTD                  | Regional Transit District                                     |
| RTP/SCS              | Regional Transportation Plan/Sustainable Communities Strategy |
| RWCF                 | Regional Wastewater Control Facility                          |
| RWQCB                | Regional Water Quality Control Board                          |
| SB                   | Senate Bill   |
| SIP                  | State Implementation Plan                                     |
| SJCOG                | San Joaquin Council of Governments                            |
| SJV                  | San Joaquin Valley  |
| SJVAB                | San Joaquin Valley Air Basin                                  |
| SJVAPCD              | San Joaquin Valley Air Pollution Control District             |
| SO <sub>2</sub>      | sulfur dioxide  |
| SPCC                 | spill prevention, control, and countermeasure                 |
| SR                   | State Route   |
| SU                   | significant and unavoidable                                   |
| SWRCB                | State Water Resource Control Board                            |
| TAC                  | toxic air contaminants  |
| TAZ                  | traffic analysis zone   |
| TCM                  | Three County Model  |
| TISG                 | Transportation Impact Study Guide                             |
| TWLTL                | two-way left-turn lane  |
| UAV                  | Unmanned Aerial Vehicle                                       |
| UST                  | underground storage tank                                      |
| UWMP                 | Urban Water Management Plan                                   |
| VdB                  | vibration decibels  |
| VMT                  | vehicle miles traveled  |
| VOC                  | volatile organic compound                                     |
| ZEV                  | zero-emission vehicle   |

\* As used in Section 4.1, Air Quality.

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# ES Executive Summary

This chapter provides a summary of the Draft Environmental Impact Report (EIR) for the proposed St. Joseph's Medical Center of Stockton Hospital Expansion Project ("proposed project"). Included in this summary are areas of known controversy and issues to be resolved, a summary of project alternatives, a summary of all project impacts and associated mitigation measures, and a statement of the ultimate level of significance after mitigation is applied.

## ES.1 Document Purpose

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

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

## ES.2 Project Location

The main project expansion site includes the existing 18.7-acre St. Joseph's Medical Center of Stockton ("Medical Center") campus which is generally bounded by E. Cleveland Street to the north, E. Harding Way to the south, N. California Street to the west, and Cemetery Lane to the east in the City of Stockton. The campus is approximately 1.3 miles north of State Route 4, 2.3 miles west of State Route 99, and 2.6 miles east of Interstate 5. Adjacent land uses include commercial uses located to the west and south. The San Joaquin Catholic Cemetery borders the site to the east and County and City facilities (which include County medical clinics, a County behavior health center, and City fire station) border the site to the south. Land uses to the west and north (across N. California Avenue and E. Cleveland Way) include residential and commercial uses. There are no residential uses immediately adjacent to the Medical Center campus. However, some residential uses are immediately adjacent to the additional off-campus properties that are within the scope of the Master Development Plan (MDP). The off-campus properties are within a 0.2-mile radius of the Medical Center campus.

## ES.3 Project Description

The proposed project involves preparation of a MDP that establishes the foundation for the hospital expansion and provides a single, unified concept for future growth of the St. Joseph's Medical Center of Stockton. The MDP includes a Site Master Plan which depicts a new hospital building ("Acute Care Hospital Tower"), a new multistory Parking Structure, construction of a new Central Utility Plant, expansion of the existing Generator building and other required support facilities within the Medical Center campus boundaries, as well removal of existing buildings to accommodate the project. Support facilities may include modular buildings on or proximate to the campus, medical offices, and temporary off-site parking facilities and a shuttle service for the benefit of employees, visitors and construction workers during the construction activities. Development of the proposed project would occur over a span of five (5) phases

(“Initial Expansion” phase) with a Future Expansion phase likely to include lands in the project vicinity. Please see Chapter 2, Project Description for a detailed overview of all aspects of the proposed project.

## ES.4 Project Objectives

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

The project applicant’s vision is to be known as the premier health care delivery network and teaching institution for the Northern San Joaquin Valley and provided below is the underlying purpose of the project. The proposed project would accomplish the following:

- Provide a broad range of healthcare services to Stockton and the surrounding Northern San Joaquin Valley to further establish St. Joseph’s Medical Center of Stockton as a regional provider of health care services.
- Expand and modernize existing medical facilities to meet current patient needs and the anticipated growth in the Northern San Joaquin Valley.
- Broaden the established medical learning environment that serves as a premier teaching institution for the Northern San Joaquin Valley that will support historical and anticipated shortages of medical professionals in the region.
- Address seismic requirements imposed by Senate Bill 1953.<sup>1</sup>

The project objectives for the purposes of this EIR are as follows:

- Provide additional capacity for acute care treatment for patients of all income levels and all payer sources in Stockton and the surrounding northern San Joaquin valley.
- Enhance building capacity for utilization of technology in the provision of health care services.
- Modernize and upgrade the existing Medical Center to meet seismic retrofit requirements as set forth in Senate Bill 1953 and do so without the temporary loss of use of patient beds.
- Improve flexibility of patient bed arrangements to meet surges in need for medical care such as was experienced with the COVID-19 Pandemic.
- Increase quantity and quality of space for graduate educational services with the goal of retaining physicians and other medical professional and technical staff trained at the Medical Center in Stockton and the surrounding northern San Joaquin valley.
- Improve quantity, quality, and proximity of parking for patients, visitors, and staff.
- Locate new buildings within a reasonable proximity to the existing medical center facilities to facilitate easy access for patients, visitors, and staff.
- Change internal site circulation to enhance emergency access for ambulances and patients transported by other third parties, focus non-patient access to the rear of the Medical Center, and complement City objectives of increasing reliance upon bicycle travel both around and into the site.
- Update existing utility connections to accommodate enhanced medical services and provide sufficient emergency back-up for expanded capacity.

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<sup>1</sup> Senate Bill 1953 was signed into law in September 1994. It amended the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983 and was added to Section 130060 of the Health and Safety Code.

- Create both short-term construction jobs related to development, including grading, infrastructure and building construction, and permanent employment-generating uses, consistent with City objectives for creation of employment opportunities for residents.
- Implement a Site Master Plan that maximizes the use and redevelopment of underutilized property to provide new opportunities for the construction of modernized, acute care facilities.
- Provide options for additional helicopter landing and parking to improve access for patients transported by helicopter to the expanded and relocated emergency facilities, and to accommodate a future trauma center designation should regional needs arise in the future.
- Maximize the efficient use of existing and very limited available land and buildings while replacement and modernization of some buildings is underway.

## ES.5 Summary of Environmental Impacts and Mitigation Measures

Table ES-1, Summary of Environmental Impacts and Mitigation Measures, provides an overview of the impact analysis and a summary of environmental impacts (before and after mitigation) resulting from implementation of the project pursuant to CEQA Guidelines Section 15123(b)(1). For a more detailed discussion of project impacts, please see Chapter 4 of this EIR and the Initial Study included in Appendix B.

To assist the reader the following acronyms are used in Table ES-1.

LTS = Less than Significant

S = Significant

PS = Potentially Significant

SU = Significant and Unavoidable

NI = No Impact

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s)  | Level of Significance After Mitigation |
|---|---|--|--|
| <b>4.1 Air Quality</b>  |   |  |  |
| 4.1-1 The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.   | LTS                                       | None required.   | LTS                                    |
| 4.1-2 The proposed project would not 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. | LTS                                       | None required.   | LTS                                    |
| 4.1-3 The proposed project would not expose sensitive receptors to substantial pollutant concentrations.  | PS  | <p><b>MM 4.1-1: Construction Health Effects</b></p> <p>Prior to the commencement of construction activities, the applicant shall require its construction contractor to demonstrate that project-generated construction emissions do not exceed the applicable San Joaquin Valley Air Pollution Control District (SJVAPCD) cancer risk thresholds.</p> <p>Compliance with this performance standard shall be achieved through the use of California Air Resources Board (CARB)-certified Tier 4 Final engines for all diesel-powered equipment pieces that are 50 horsepower or greater.</p> <p>In the event of changed circumstances (e.g., changes in the availability of specific types of construction equipment), the applicant may submit a request to the Office of Statewide Planning and Development Facilities Development Division for approval of a different method of achieving project-generated construction emissions that fall below the applicable SJVAPCD cancer risk threshold. Documentation shall be provided to the Office of Statewide Planning and Development Facilities Development Division demonstrating that project-generated construction emissions do not exceed the applicable SJVAPCD cancer risk threshold with the alternate construction methods.</p> | LTS                                    |



**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|---|---|---|--|
|   |   | <p>(This shall be demonstrated using industry-standard emission estimation methodologies.) If the documentation successfully demonstrates that project-generated construction emissions remain below the applicable SJVAPCD cancer risk threshold, then the Facilities Development Division may approve the alternate construction methods, at the Director’s discretion.</p> <p>Required construction equipment fleet and methodologies approved by the Office of Statewide Planning and Development Facilities Development Division shall be included in the contract specifications for the applicant’s construction contractor.</p> |  |
| 4.1-4 The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. | LTS                                       | None required.  | LTS                                    |
| 4.1-5 The proposed project would not result in increased emissions of criteria pollutants in the SJVAB.   | LTS                                       | None required.  | LTS                                    |
| <b>4.2 Aesthetics</b>   |   |   |  |
| 4.2-1 The proposed project would conflict with applicable zoning and other regulations governing scenic quality.                                    | S   | None available.   | SU                                     |
| 4.2-2 The proposed project would not result in a significant cumulative impact related to aesthetics or visual resources.                           | LTS                                       | None required.  | LTS                                    |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact   | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|--|---|---|--|
| <b>4.3 Biological Resources</b>  |   |   |  |
| <p>4.3-1 The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, nor substantially reduce the number or restrict the range of a rare or endangered plant or animal.</p> | <p>PS</p>                                 | <p>No mitigation required. Conditions of Approval (COA) are listed below.</p> <p><b>COA-1: Preconstruction Nesting Bird Surveys</b></p> <p>If vegetation removal and initial ground-disturbing activities would occur during the nesting season (March 1 – July 31) of common bird species potentially nesting on the project site, surveys for active nests shall be conducted as described below.</p> <ul style="list-style-type: none"> <li>(a) A qualified biologist shall conduct a pre-construction survey for nesting birds no more than 14 days prior to vegetation or tree removal or ground-disturbing activities. The survey shall be conducted in suitable nesting habitat both within the limits of construction as well as within 250 feet of the limits of construction. If suitable nest habitat within 250 feet of the limits of construction occurs beyond the project boundary into adjacent privately held lands, then the survey shall only be conducted within habitat up to the project site boundary. This includes trees and shrubs adjacent to the site within that buffer distance. If vegetation removal or ground-disturbance activities are delayed, additional nest surveys shall be conducted such that no more than 14 days elapse between the survey and vegetation removal or ground-disturbance activities.</li> <li>(b) If any active nests are observed during the pre-construction surveys, a qualified biologist shall establish a suitable avoidance buffer from the active nest and construction activities. The buffer distance shall be determined based on factors such as the species of bird; the presence/absence of visual barriers between the disturbance and the nest; type, intensity and extent of the</li> </ul> | <p>LTS</p>                             |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|----------------------|---|---|--|
|                      |   | <p>disturbance; timing relative to the nesting cycle; and anticipated construction schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.</p> <p>(c) If an active nest is identified in or adjacent to the construction zone after construction has started, work in the vicinity of the nest shall be halted until the qualified biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged and/or full-time monitoring by a qualified biologist during construction activities conducted in close proximity to the nest. The buffer distance shall be determined based on the same factors set forth in paragraph b.</p> <p><b>COA-2: Preconstruction Roosting Bat Surveys</b></p> <p>(a) To ensure compliance with California Fish and Game Code section 4150, if tree removal and building demolition will occur during peak bat activity periods (March 1–April 30 and August 1–October 31) when juvenile or overwintering bat species known to occur in the project region may be present, the following will be conducted to ensure protection of potentially occurring bats and their roosts on the project site. Additionally, and to the extent practicable, construction activities shall be restricted to daylight hours to reduce indirect and direct disturbance to roosting and foraging bat species.</p> <p>(b) A pre-construction bat survey shall be conducted within 30 days of the removal of any trees or buildings. The survey shall include a visual inspection of potential roosting</p> |  |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|---|---|---|--|
|   |   | features (bats need not be present) and presence of guano in the construction footprint and within 50 feet of the footprint. If bats are found within the vacant buildings, or if individual bats are located within tree bark or tree crevices of trees to be removed, the individuals shall be evicted under the direction of a qualified biologist to ensure their protection and to avoid unnecessary harm. |  |
| 4.3-2 The proposed project would not substantially interfere with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. | LTS                                       | None required.  | LTS                                    |
| 4.3-3 The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.   | LTS                                       | None required.  | LTS                                    |
| 4.3-4 The proposed project would not substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels.  | LTS                                       | None required.  | LTS                                    |
| 4.3-5 The proposed project would not result in a significant cumulative impact related to biological resources.   | LTS                                       | None required.  | LTS                                    |
| <b>4.4 Cultural and Tribal Cultural Resources</b>   |   |   |  |
| 4.4-1 The proposed project would not cause a substantial change in the significance of a historical resource.   | NI  | None required.  | NI                                     |
| 4.4-2 The proposed project could cause a substantial adverse change in the significance   | PS  | <b>MM 4.4-2: Unknown Subsurface Resources</b>   | LTS                                    |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|---|---|---|--|
| <p>of an historical resource of an archaeological nature or a unique archaeological resource.</p> |   | <ul style="list-style-type: none"> <li>(a) Prior to construction, construction personnel shall receive brief “tailgate” training by a qualified archaeologist in the identification of archaeological resources and protocol for notification should such resources be discovered during construction work. Such tailgate training shall include discussion of the criteria that cause archaeological resources to qualify as either unique archaeological resources under Public Resources Code Section 21083.2, subdivision (g), or a historical resource of an archaeological nature under CEQA Guidelines Section 15064.5, subdivision (1)(a).</li> <li>(b) In the event archaeological resources (e.g., sites, features, or artifacts) are exposed during construction activities, all construction work occurring within 50 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior’s Professional Qualification Standards, can evaluate the significance of the find (i.e., determine whether the resources qualify as unique archaeological resources or historical resources of an archaeological nature) and determine whether or not additional study is warranted. Upon such a work stoppage, the City of Stockton’s Community Development Director (CDD) shall be notified immediately.                         <ul style="list-style-type: none"> <li>o If it is determined that unique archaeological resources or historical resources of an archaeological nature are present, the qualified archaeologist shall develop mitigation or treatment measures for consideration and approval by the City’s CDD. Mitigation shall be developed and implemented in accordance with Public Resources Code Section 21083.2 and</li> </ul> </li> </ul> |  |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|----------------------|---|---|--|
|                      |   | <p>Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), preservation in place may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If approved by the City's CDD, such measures shall be implemented and completed prior to commencing further work for which grading or building permits were issued, unless otherwise directed by the City's CDD. Avoidance or preservation of unique archaeological resources or historical resources of an archaeological nature shall not be required where such avoidance or preservation in place would preclude the construction of important structures or infrastructure or require exorbitant expenditures, as determined by the City's CDD. Where avoidance or preservation are not appropriate for these reasons, the professional archaeologist, in consultation with the City's CDD, shall prepare a detailed recommended treatment plan for consideration and approval by the City's CDD, which may include data recovery. If employed, data recovery strategies for unique archaeological resources that do not also qualify as historical resources of an archaeological nature shall follow the applicable requirements and limitations set forth in Public Resources Code Section 21083.2. Data recovery will normally consist of (but would not be limited to)</p> |  |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|----------------------|---|---|--|
|                      |   | <p>sample excavation, artifact collection, site documentation, and historical research, with the aim of recovering important scientific data contained within the unique archaeological resource or historical resource of an archaeological nature. The data recovery plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals. If data recovery is determined by the City's CDD to not be appropriate, then an equally effective treatment intended to address the specific themes or research questions of significance associated with the data of that cultural resource shall be proposed, approved by the City's CDD, and implemented. Work may not resume within the no-work radius until the City's CDD, in consultation with the professional archaeologist, determines that the site either: (1) does not contain unique archaeological resources or historical resources of an archaeological nature; or (2) that the preservation and/or treatment measures have been completed to the satisfaction of the City's CDD.</p> |  |



**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact   | Level of Significance Prior to Mitigation | Mitigation Measure(s)  | Level of Significance After Mitigation |
|--|---|--|--|
| <p>4.4-3 The proposed project could potentially damage human remains during construction activities.</p> | <p>PS</p>                                 | <p><b>MM 4.4-3: Treatment of Human Remains</b></p> <p>If human remains are discovered at any project construction site(s) during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and the City of Stockton (City), the San Joaquin County coroner, and a qualified professional archaeologist shall be notified immediately. This boundary may be adjusted to meet the demands of ongoing work, so long as the location of all potential remains are effectively protected. The coroner shall examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands, in accordance with Section 7050(b) of the Health and Safety Code. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified by phone within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The Most Likely Descendent shall provide recommendations for management of these remains within 48 hours of being provided access to this site, or as otherwise agreed upon by the land owner and the City.</p> <p>The City shall be responsible for approval of recommended mitigation as it deems appropriate, taking into account the provisions of state law, as set forth in CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Section 5097.98 through Section 5097.994, as applicable. The applicant may choose to retain a Secretary of the Interior qualified archaeologist to review recommendations and to facilitate communication concerning human remains between the landowner and the Most Likely Descendant. If a find is archaeological in nature, Mitigation Measure 4.4-2 outlines required strategies for management.</p> | <p>LTS</p>                             |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact   | Level of Significance Prior to Mitigation | Mitigation Measure(s)  | Level of Significance After Mitigation |
|--|---|--|--|
| <p>4.4-4 The proposed project could cause an adverse change in the significance of a tribal cultural resource.</p> | <p>PS</p>                                 | <p><b>MM 4.4-4: Tribal Cultural Resources</b><br/>                     To minimize the potential for destruction of or damage to existing or previously undiscovered burials, archaeological and tribal cultural resources and to identify any such resources at the earliest possible time during project-related earthmoving activities, the project applicant and its construction contractor(s) will implement the following measures:</p> <ul style="list-style-type: none"> <li>▪ Paid Native American monitors, compensated by the project applicant, from culturally affiliated Native American Tribes shall be invited to monitor the vegetation grubbing, stripping, grading or other ground-disturbing activities in the project area to determine the presence or absence of any cultural resources. Native American representatives from cultural affiliated Native American Tribes act as a representative of their Tribal government and shall be consulted before any cultural studies or ground-disturbing activities begin.</li> <li>▪ Consulting tribes and their designated Native American monitors and/or representatives shall have the authority to identify sites or objects of significance to Native Americans and to request that work be temporarily stopped, diverted or slowed if such sites or objects are identified within the direct impact area. Native American representatives shall be the primary consulted authority on Tribal Cultural Resources and shall recommend appropriate treatment of such sites or objects. All management strategies shall be in compliance with regulatory conditions and be implemented in coordination with mitigation pertaining to cultural resources and human remains (see mitigation measures 4.4-2 and 4.4-3).</li> </ul> | <p>LTS</p>                             |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|-----------------------|--|
| 4.4-5 The proposed project, in conjunction with, past, present, and reasonably foreseeable probable future projects would not have a cumulative impact on archeological resources, tribal cultural resources and human remains. | LTS                                       | None required.        | LTS                                    |
| <b>4.5 Energy</b>   |   |                       |  |
| 4.5-1 The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.             | LTS                                       | None required.        | LTS                                    |
| 4.5-2 The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.   | LTS                                       | None required.        | LTS                                    |
| 4.5-3 Buildout of the proposed project and additional forecasted growth in the PG&E service area would not cumulatively increase the demand for electricity and natural gas supplies and infrastructure capacity.               | LTS                                       | None required.        | LTS                                    |
| <b>4.6 Geology and Soils</b>  |   |                       |  |
| 4.6-1 The proposed project would not expose people or structures to potentially substantial adverse events, including the risk of loss, injury, or death involving rupture of a known earthquake fault.                         | LTS                                       | None required.        | LTS                                    |
| 4.6-2 The proposed project would not expose people or structures to potentially substantial adverse events, including the risk of loss, injury, or death involving strong seismic ground shaking.                               | LTS                                       | None required.        | LTS                                    |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact   | Level of Significance Prior to Mitigation | Mitigation Measure(s)  | Level of Significance After Mitigation |
|--|---|--|--|
| 4.6-3 The proposed project would not expose people or structures to potentially substantial adverse events, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.             | LTS                                       | None required.   | LTS                                    |
| 4.6-4 The proposed project would not expose people or structures to potentially substantial adverse events, including the risk of loss, injury, or death involving landslides.   | NI  | None required.   | NI                                     |
| 4.6-5 The proposed project would not result in substantial soil erosion or the loss of topsoil.  | LTS                                       | None required.   | LTS                                    |
| 4.6-6 The proposed project would be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. | LTS                                       | None required.   | LTS                                    |
| 4.6-7 The proposed project would not be located on expansive soil that would create substantial risks to life or property.   | LTS                                       | None required.   | LTS                                    |
| 4.6-8 The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.  | PS  | <p><b>MM 4.6-8: Unanticipated Paleontological Discovery</b></p> <p>(a) Prior to construction, construction personnel shall receive brief “tailgate” training by a qualified archaeologist in the identification of paleontological resources and protocol for notification should such resources be discovered during construction work.</p> <p>(b) If buried paleontological resources are inadvertently discovered during ground-disturbing activities, work shall stop within 50 feet of the find. Work shall not continue at the discovery site until a qualified paleontologist can examine the find to determine whether it includes or constitutes a unique paleontological resource and, if it is, formulate</p> | LTS                                    |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact   | Level of Significance Prior to Mitigation | Mitigation Measure(s)  | Level of Significance After Mitigation |
|--|---|--|--|
|  |   | <p>mitigation recommendations for consideration and approval by the City’s Community Development Director (CDD). A unique paleontological resource means a paleontological resource about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the two following criteria: (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or (2) has a special and particular quality such as being the oldest of its type or the best available example of its type. Mitigation options shall include preserving the resource in place or recovering data and creating documentation for transmission to the University of California Museum of Paleontology or another institution of higher education with an established paleontological department or program. Avoidance or preservation in place of unique paleontological resources shall not be required where such avoidance or preservation would preclude the construction of important structures or infrastructure or require exorbitant expenditures, as determined by the City’s CDD.</p> |  |
| <p>4.6-9 The proposed project would not contribute to a cumulatively significant impact related to loss of paleontological resources.</p>  | <p>PS</p>                                 | <p>See <b>MM 4.6-8.</b></p>  | <p>LTS</p>                             |
| <p><b>4.7 Greenhouse Gas Emissions</b></p>   |   |  |  |
| <p>4.7-1 The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</p> | <p>PS</p>                                 | <p><b>MM 4.7-1: GHG Emission Reduction Measures</b></p> <p>The following GHG emission reduction measures shall be implemented:</p> <ul style="list-style-type: none"> <li>▪ New buildings shall be constructed with either a cool roof or an Energy Star roof.</li> </ul>  | <p>SU</p>                              |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|----------------------|---|---|--|
|                      |   | <ul style="list-style-type: none"> <li>▪ The parking structure shall be pre-plumbed and/or structurally engineered for the installation of complete solar energy systems as part of the parking structure and/or over surface parking.</li> <li>▪ In the parking structure and surface parking areas, dedicated electric vehicle (EV) parking shall be installed in a minimum of 5% of the parking spaces (or 99 spaces in the parking structure and approximately 4 spaces in the surface lot).</li> <li>▪ Long-term bicycle storage facilities such as bicycle lockers, pedestal posts, and rental bicycle lockers shall be provided and facilities included that allow for the installation of conduit to install charging stations for electric bicycles.</li> <li>▪ Include the installation of both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to the California Air Resources Board (CARB), San Joaquin Valley Air Pollution Control District (SVAPCD), and the building manager.</li> <li>▪ Run conduit to designated locations for future electric truck charging stations at delivery dock locations.</li> <li>▪ Post signs at every truck exit driveway providing directional information to the nearest truck route.</li> <li>▪ Include exterior outlets on all buildings to allow the use of electrically-powered landscape equipment and the use of gas-powered landscape maintenance equipment shall be prohibited on site.</li> <li>▪ Require the use of energy-efficient lighting LED for all street, parking, and building lighting. This reduces the amount of electricity consumed for outdoor lighting.</li> </ul> |  |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|----------------------|---|---|--|
|                      |   | <ul style="list-style-type: none"> <li>▪ Prepare a campus-wide Transportation Demand Management (TDM) Plan. The TDM Plan shall include a variety of trip reduction strategies such as expanding upon existing alternative transportation programs; establishing an incentives-based commuter program to encourage employees to carpool and take alternative modes of travel to the hospital; increase bicycle facilities; and prioritize carpool parking, etc.</li> <li>▪ Encourage telecommuting and alternative work schedules for those employees for whom remote work is acceptable.</li> <li>▪ Maximize the amount of drought tolerant landscaping. Turf shall be limited to high visibility areas. Low groundcover and native grasses shall be used as an alternative to turf. Any turf used shall be warm-season turf or shall have a plant species factor of 0.6 or lower.</li> </ul> <p><b>MM 4.7-2: GHG Emissions Reduction Program</b></p> <p>In order to reduce the remaining greenhouse gas (GHG) emissions to 0.50 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)/service population/per year, the applicant shall pursue feasible measures that contribute to an off-site GHG emissions reduction program or involve the payment of GHG offset fees. Any GHG offsets or GHG-mitigation credits included within a GGRP must be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2), which are defined for purposes of this mitigation measure as follows:</p> <ul style="list-style-type: none"> <li>i. Real—Represent reductions actually achieved (not based on maximum permit levels).</li> <li>ii. Additional/surplus—Not already planned or required by regulation or policy (i.e., not double counted).</li> </ul> |  |



**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)  | Level of Significance After Mitigation |
|----------------------|---|--|--|
|                      |   | <ul style="list-style-type: none"> <li>iii. Quantifiable—Readily accounted for through process information and other reliable data.</li> <li>iv. Enforceable—Acquired through legally binding commitments/agreements.</li> <li>v. Validated—Verified through accurate means by a reliable third party.</li> <li>vi. Permanent—Will remain as GHG reductions in perpetuity</li> </ul> <p>Such offsets shall be based on protocols consistent with the criteria set forth Section 95972, subdivision (a) of Title 17 of the California Code of Regulations, and shall not include offsets originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by the City of Stockton in consultation with the San Joaquin Valley Air Pollution Control District’s (SJVAPCD). Offsets for GHG emissions originating from outside the United States shall not be permitted. Such GHG offsets or GHG mitigation credits must be purchased through one of the following:</p> <ul style="list-style-type: none"> <li>i. a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard;</li> <li>ii. any registry approved by CARB to act as a registry under the California Cap and Trade program;</li> <li>iii. the California Air Pollution Control Officers Association (CAPCOA) GHG Rx program; or</li> <li>iv. any GHG offset or GHG mitigation program adopted the SJVAPCD.</li> </ul> <p>Over the course of project build out and prior to issuance of requested building permits, the project applicant shall submit reports to the Facilities Development Division that identify the carbon offsets that have been obtained to offset the project’s</p> |  |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|----------------------|---|---|--|
|                      |   | <p>operational generated GHG emissions below the 0.50 MT CO2e/service population/per year efficiency threshold. Such reports may be submitted on a phase-by-phase basis, with the required offsets for an individual phase being limited to what is necessary for that phase to achieve its proportional share of the emissions reductions needed to achieve the overall efficiency threshold for the project as a whole. The reports shall include: (i) the applicable protocol(s) associated with the carbon offsets, (ii) the third-party confirmation/verification reports affiliated with the carbon offset projects, (iii) the unique serial numbers assigned by the registry(ies) to the carbon offsets to be retired to ensure that the offsets cannot be further used in any manner, and (iv) the locational attributes of the carbon offsets.</p> <p>For purposes of this mitigation measure, what is “feasible,” as that word is used in the phrase “feasible measures that contribute to an off-site GHG emissions reduction program or involve the payment of GHG offset fees,” is a function of the technical viability and overall cost of carbon offsets, and, specifically, whether such offsets (i) are reasonably commercially available, (ii) would be prohibitively expensive for the nonprofit applicant in light of the financial challenges of providing health care services, (iii) would materially increase the cost of the health care provided by the applicant, or (iv) would render the overall project or phase of the project economically infeasible within the meaning of CEQA case law such as Uphold Our Heritage v. Town of Woodside (2007) 147 Cal.App.4th 587, 598-601 [proposal may be infeasible if “the marginal costs ... are so great that a reasonably prudent property owner would not proceed with” the proposal].)</p> <p>If the applicant contends that some or all of the carbon offsets conditionally required by this measure are infeasible either for the project as a whole or for an individual phase, the applicant shall so inform the City in advance of the due date for the reports</p> |  |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s)  | Level of Significance After Mitigation |
|---|---|--|--|
|   |   | described above. The applicant shall state in writing its reasons for concluding that the ostensibly required carbon offsets are infeasible. The City shall relieve the applicant of its ostensible obligation to provide such offsets if the applicant’s conclusions on the issue of feasibility are supported by substantial evidence and conform to the definition of “feasible” set forth above.   |  |
| 4.7-2 The proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.       | PS  | See <b>MMs 4.7-1 and 4.7-2.</b>  | SU                                     |
| 4.7-3 The proposed project would result in cumulatively considerable impacts with regard to greenhouse gas emissions.   | PS  | See <b>MMs 4.7-1 and 4.7-2.</b>  | SU                                     |
| <b>4.8 Hazards and Hazardous Materials</b>  |   |  |  |
| 4.8-1 The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. | PS  | <b>MM 4.8-1: Lead-based Paint Abatement</b><br>Prior to demolition permit issuance, the project applicant or their contractor shall retain a certified abatement contractor to prepare an abatement work plan in compliance with state and federal regulations for removal of lead-based paint identified on the outside doors of the McCloud and Main Hospital Wing buildings and include a monitoring plan to be conducted by a qualified consultant during abatement activities to ensure compliance with the work plan requirements and abatement contractor specifications. In addition, a certified contractor shall collect soil samples in the locations identified in the Phase 2 ESA to be tested to ensure any soil exported off-site or stockpiled soil on-site does not exceed 50 mg/kg. Demolition plans and contract specifications shall incorporate any necessary abatement measures for the removal of materials containing lead-based paint to the satisfaction of the City’s Community Development Department. | LTS                                    |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|---|---|-----------------------|--|
| 4.8-2 The proposed 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.                                   | LTS                                       | None required.        | LTS                                    |
| 4.8-3 The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.   | LTS                                       | None required.        | LTS                                    |
| 4.8-4 The proposed project site is not included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment.                                | NI  | None required.        | NI                                     |
| 4.8-5 The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.   | LTS                                       | None required.        | LTS                                    |
| 4.8-6 The proposed project, when combined with past, present and reasonably foreseeable future projects, would not contribute to a cumulative increase in the potential exposure of people to hazards associated with the use and transport of hazardous materials. | LTS                                       | None required.        | LTS                                    |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|---|---|---|--|
| <b>4.9 Noise</b>  |   |   |  |
| <p>4.9-1 The proposed project could result in generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project substantially above levels without the project or in excess of standards established in the City’s general plan or noise ordinance, or applicable standards of other agencies.</p> | <p>PS</p>                                 | <p><b>MM 4.9-1: Construction Noise</b></p> <p>Construction operations performed between 6:30 a.m. and 7:00 a.m. Monday through Friday, weekends and holidays shall comply with the following requirements:</p> <ul style="list-style-type: none"> <li>▪ Equipment shall be operated to minimize banging, clattering, buzzing, and other annoying types of noises, especially near residential and other noise sensitive areas prior to work commencing between 6:30 a.m. and 7:00 a.m. Monday through Friday, weekends and holidays.                             <ul style="list-style-type: none"> <li>- To the extent feasible, configure the construction site in a manner that keeps noisier equipment and activities as far as possible from noise sensitive locations and nearby buildings.</li> <li>- All auditory back-up alarms shall be disarmed and not reactivated until 7:00 a.m. on weekdays, weekends and holidays.                                     <ul style="list-style-type: none"> <li>- Signal persons and strobe lights must be used during periods when the back-up alarms are disarmed.</li> </ul> </li> <li>- Schedule high noise-producing activities, such as demolition or grading operations/equipment, to only occur between the hours of 7:00 a.m. and 4:00 p.m., weekdays, weekends and holidays, to minimize potential disruption to sensitive uses.</li> <li>- Minimize noise-intensive activities/operations between 6:30 a.m. and 7:00 a.m., weekdays, weekends and holidays by doing the following:                                     <ul style="list-style-type: none"> <li>- Plan noisier operations during times of highest ambient noise levels (i.e., daytime hours, 7:00 a.m. to 4:00 p.m.).</li> </ul> </li> </ul> </li> </ul> | <p>LTS</p>                             |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|----------------------|---|---|--|
|                      |   | <ul style="list-style-type: none"> <li>- Keep noise levels relatively uniform; avoid excessive and impulsive noises.</li> <li>- Turn off idling equipment.</li> </ul> <p><b>MM 4.9-2: Central Utility Plant Operational Noise</b></p> <p>Central Utility Plant operational noise levels shall be minimized through project site design, including the construction of localized barriers, and the use of acoustical absorption materials, as outlined below.</p> <ul style="list-style-type: none"> <li>▪ All mechanical equipment with the potential to generate excessive noise levels shall be fitted with intake and exhaust silencers, or acoustical enclosures sufficient to reduce noise levels to comply with City of Stockton noise standards.</li> <li>▪ Mechanical equipment with the potential to generate excessive noise levels shall be located within the Central Utility Plant building wherever possible. Building penetrations such as fresh air intakes shall be fitted with acoustical louvers.</li> <li>▪ Noise generating equipment not located within the Central Utility Plant building or within adjacent service yards shall be shielded from direct line-of-sight to nearby noise-sensitive uses (approximately 475 feet to the west and 1,000 feet to the east) through the use of localized noise barriers, rooftop parapets, sound rated mechanical screens or intervening structures.</li> <li>▪ The Central Utility Plant and other mechanical equipment shall be located a sufficient distance from nearby noise sensitive receptors (approximately 475 feet to the west and 1,000 feet to the east), so that mitigated noise levels do not exceed City of Stockton noise level performance standards.</li> </ul> |  |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|----------------------|---|---|--|
|                      |   | <p><b>MM 4.9-3: Parking Structure ADA Ingress and Egress Notification System</b></p> <p>The Parking Structure ADA ingress and egress notification system shall be minimized through project site design, including the selection of equipment capable of complying with the City of Stockton noise standards, equipment location, construction of localized acoustic screens, and providing documentation of compliance with the City of Stockton noise standards.</p> <ul style="list-style-type: none"> <li>▪ During equipment specification and selection processes, an auditory notification system capable of either being able to achieve compliance with City noise standards based on the equipment configuration; or,               <ul style="list-style-type: none"> <li>- Equipment selection shall place considerable deference to state-of-the-art equipment offering the best available acoustical performance (i.e., equipment configurable to produce the lowest acoustic energy as possible, while still achieving the necessary levels for appropriate notification).</li> </ul> </li> <li>▪ For equipment specified or selected for inclusion in the Parking Structure ingress and egress notification system that is not capable of being configured and installed in a manner to inherently achieve compliance with the City of Stockton noise standards, documentation shall be provided to the City demonstrating compliance with the City of Stockton noise standards at the nearby noise-sensitive receptors.               <ul style="list-style-type: none"> <li>- Demonstration of compliance may be provided through substantial reference sound level data from the equipment supplier/manufacture, or through consultation with a qualified acoustical consultant.</li> </ul> </li> </ul> |  |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s)   | Level of Significance After Mitigation |
|---|---|---|--|
|   |   | <ul style="list-style-type: none"> <li>- Should it be necessary to retain a qualified acoustical consultant to demonstrate compliance with the City noise standards, or if the manufacturer reference sound level data is deemed incomplete or insufficient, a qualified acoustical consultant shall be retained at the applicants expense to evaluate the manufacturer reference noise level data, demonstrate and provide documentation to the City that the sound levels produced by the notification system shall comply with City noise standards.</li> <li>- Should manufacturer sound level data not fully demonstrate compliance with the City noise standards, or if a supplemental analysis is performed post-construction, the sound level testing shall be performed by a qualified acoustical consultant or City Code Enforcement Officer familiar with and capable of documenting the notification system sound levels through the use of a precision integrating sound level meter or measurement platform that meets or exceeds the ANSI standards for type 1 or 2 sound level meters.</li> </ul> |  |
| 4.9-2 The proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels during construction.                   | LTS                                       | None required.  | LTS                                    |
| 4.9-3 The proposed project would not contribute to an increase in cumulative traffic noise exposing project residents to increased noise and exceed City standards. | LTS                                       | None required.  | LTS                                    |



**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact   | Level of Significance Prior to Mitigation | Mitigation Measure(s) | Level of Significance After Mitigation |
|--|---|-----------------------|--|
| <b>4.10 Public Utilities</b>   |   |                       |  |
| 4.10-1 The proposed project would not require the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities resulting in environmental effects. | LTS                                       | None required.        | LTS                                    |
| 4.10-2 The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.   | LTS                                       | None required.        | LTS                                    |
| 4.10-3 The proposed project would not result in a determination by the wastewater treatment provider, that it does not have adequate capacity to serve the project's projected demand in addition to existing commitments.                           | LTS                                       | None required.        | LTS                                    |
| 4.10-4 The proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.                           | LTS                                       | None required.        | LTS                                    |
| 4.10-5 The proposed project would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste.  | LTS                                       | None required.        | LTS                                    |

**Table ES-1. Summary of Impacts and Mitigation Measures**

| Environmental Impact  | Level of Significance Prior to Mitigation | Mitigation Measure(s)  | Level of Significance After Mitigation |
|---|---|--|--|
| 4.10-6 The proposed project, when combined with past, present and reasonably foreseeable future projects, would not result in cumulatively considerable impacts related to utilities and service systems. | LTS                                       | None required.   | LTS                                    |
| <b>4.11 Transportation and Circulation</b>  |   |  |  |
| 4.11-1 The proposed project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.                    | PS  | <b>MM 4.11-1: Traffic Signal</b><br>Prior to obtaining a Certificate of Occupancy, the project applicant shall coordinate with the City of Stockton on the design, construction, and implementation of a new traffic signal at the intersection of Cemetery Lane/E. Harding Way. The project applicant shall be fully responsible for the installation of the signal which would accommodate the expected future traffic demand, improve pedestrian safety, and improve emergency access via integrated traffic signal pre-emption for the adjacent Stockton Fire Station No. 9. | LTS                                    |
| 4.11-2 The proposed project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).  | LTS                                       | None required.   | LTS                                    |
| 4.11-3 The proposed 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).       | LTS                                       | None required.   | LTS                                    |
| 4.11-4 The proposed project would not result in inadequate emergency access.  | LTS                                       | None required.   | LTS                                    |
| 4.11-5 The proposed project would not result conflict or be inconsistent with CEQA Guidelines section 15064.3(b) under cumulative conditions.   | LTS                                       | None required.   | LTS                                    |

## ES.6 Comments Received in Response to the Notice of Preparation

The Notice of Preparation (NOP) for this Draft EIR was released on December 17, 2021, and the public comment period closed on January 18, 2022. A total of three letters were received, as shown in Table ES-2. The purpose of the NOP is to solicit input from public agencies and the public on the scope of the EIR analysis. Opinions on the merits of the project are noted but are not considered relevant for the purposes of defining the scope of the analysis. All of the NOP comment letters received are included in Appendix A.

Written comments in response to the NOP were received from the following agencies and local organization. No comments were received from members of the public.

**Table ES-2. Comments Received in Response to the NOP**

| Agencies  |
|---|
| Central Valley Regional Water Quality Control Board (RWQCB) |
| Native American Heritage Commission (NAHC)                  |
| Sierra Club, Delta-Sierra Group                             |

The Central Valley RWQCB provided an overview of standard agency requirements for development projects. As discussed in the Initial Study (Appendix B) the project would not have any impacts to hydrology and water quality.

The NAHC Letter states that the project must comply with Assembly Bill 52, which requires formal notification and consultation with California Native American tribes. The City sent notification letters to all tribes that requested notification. One request for consultation was received by the Wilton Rancheria and the City and the Rancheria have agreed to have a tribal monitor present during site disturbing activities. The Rancheria has not indicated if the projects site may contain any tribal cultural resources.

The Sierra Club letter requests more information on the relationship between Dignity Health (CommonSpirit Health) and Kaiser Permanente and asks if Dignity Health included the public during preparation of the MDP. The letter also requests the project alternatives address acquiring adjacent parcels for expansion in lieu of retaining all the development on the existing medical campus and also alternatives to constructing the parking garage. Lastly, the letter requests the project’s impact on biological resources that may use the adjacent cemeteries for foraging and nesting be evaluated. Further discussion on biological resources is included in the Biological Resources section of the Initial Study (Appendix B) and in Section 4.3 of this EIR. Chapter 6, Alternatives, evaluates feasible alternatives to the project.

## ES.7 Areas of Controversy/Issues to be Resolved

Section 15123(b)(2) of the CEQA Guidelines requires that areas of controversy known to the lead agency must be stated in the summary prepared as part of the EIR and Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved. Known areas of controversy include the concerns brought up in the Sierra Club letter, described above.

## ES.8 Summary of Project Alternatives

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

### Alternatives Evaluated

This EIR includes an evaluation of the following alternatives:

- **Alternative 1: No Project/No Development Alternative.** This alternative assumes the existing St. Joseph’s Medical Center campus would remain as currently designed and a MDP would not be prepared. The existing buildings would all remain and a new Acute Care Hospital Tower, Parking Structure, central utility plant and other supporting facilities would not be developed.
- **Alternative 2: Reduced Scope Alternative.** This alternative would reduce the scope of expansion of the Medical Center as compared to the proposed project. The same as the proposed project, project components including a multistory Parking Structure, Acute Care Hospital Tower, and other components would still be planned, but would be reduced in size and scale. This alternative would still expand the Medical Center and its ability to deliver healthcare services to the community, albeit to a lesser extent as compared to the proposed project.
- **Alternative 3: Reduced Parking Alternative.** This alternative would reduce the scope of the proposed new Parking Structure compared to the proposed project. The Reduced Parking Alternative would include all the same elements under the proposed project but would reduce the size and capacity of the new Parking Structure.

## ES.9 Environmentally Superior Alternative

Table ES-3, Comparison of Impacts of the Alternatives, provides a summary of the alternatives impact analysis considered in the EIR and identifies the areas of potential environmental effects per CEQA, and indicates whether each alternative is better, the same, or worse than the proposed project with respect to each issue area.

**Table ES-3. Comparison of Impacts of the Alternatives**

| Environmental Impact <sup>1</sup>  | Proposed Project     | Alternative 1: No Project | Alternative 2: Reduced Scope | Alternative 3: Reduced Parking |
|--|----------------------|---------------------------|------------------------------|--------------------------------|
| <b>4.1 Air Quality</b>   |                      |                           |                              |                                |
| 4.1-3 The proposed project could expose sensitive receptors to substantial pollutant concentrations.             | LTS with MM<br>4.1-1 | NI▼                       | LTS with MM<br>4.1-1▼        | LTS with MM<br>4.1-1▼          |
| <b>4.2 Aesthetics</b>  |                      |                           |                              |                                |
| 4.2-1 The proposed project would conflict with applicable zoning and other regulations governing scenic quality. | SU                   | NI▼                       | SU▼                          | SU▼                            |

**Table ES-3. Comparison of Impacts of the Alternatives**

| Environmental Impact <sup>1</sup>  | Proposed Project           | Alternative 1: No Project | Alternative 2: Reduced Scope | Alternative 3: Reduced Parking |
|--|----------------------------|---------------------------|------------------------------|--------------------------------|
| <b>4.3 Biological Resources</b>  |                            |                           |                              |                                |
| Biological Resources (general)   | LTS                        | NI▼                       | LTS (-)                      | LTS (-)                        |
| <b>4.4 Cultural and Tribal Cultural Resources</b>  |                            |                           |                              |                                |
| 4.4-2 The proposed project could cause a substantial adverse change in the significance of an historical resource of an archaeological nature or a unique archaeological resource. | LTS with MM 4.4-2          | NI▼                       | LTS with MM 4.4-2(-)         | LTS with MM 4.4-2(-)           |
| 4.4-3 The proposed project could potentially damage human remains during construction activities.  | LTS with MM 4.4-3          | NI▼                       | LTS with MM 4.4-3(-)         | LTS with MM 4.4-3(-)           |
| 4.4-4 The proposed project could cause an adverse change in the significance of a tribal cultural resource.  | LTS with MM 4.4-3          | NI▼                       | LTS with MM 4.4-3(-)         | LTS with MM 4.4-3(-)           |
| <b>4.5 Energy</b>  |                            |                           |                              |                                |
| Energy (general)   | LTS                        | NI▼                       | LTS▼                         | LTS▼                           |
| <b>4.6 Geology and Soils</b>   |                            |                           |                              |                                |
| 4.6-8 The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.  | LTS with MM 4.6-8          | NI▼                       | LTS with MM 4.6-8(-)         | LTS with MM 4.6-8(-)           |
| 4.6-9 The proposed project would not contribute to a cumulatively significant impact related to loss of paleontological resources.   | LTS with MM 4.6-8          | NI▼                       | LTS with MM 4.6-8(-)         | LTS with MM 4.6-8(-)           |
| <b>4.7 Greenhouse Gas Emissions</b>  |                            |                           |                              |                                |
| 4.7-1 The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.                          | SU with MM 4.7-1 and 4.7-2 | NI▼                       | SU with MM 4.7-1 and 4.7-2▼  | SU with MM 4.7-1 and 4.7-2(-)  |
| 4.7-2 The proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.                    | SU with MM 4.7-1 and 4.7-2 | NI▼                       | SU with MM 4.7-1 and 4.7-2▼  | SU with MM 4.7-1 and 4.7-2(-)  |
| 4.7-3 The proposed project would result in cumulatively considerable impacts with regard to greenhouse gas emissions.  | SU with MM 4.7-1 and 4.7-2 | NI▼                       | SU with MM 4.7-1 and 4.7-2▼  | SU with MM 4.7-1 and 4.7-2(-)  |
| <b>4.8 Hazards and Hazardous Materials</b>   |                            |                           |                              |                                |
| 4.8-1 The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.              | LTS with MM 4.8-1          | NI▼                       | LTS with MM 4.8-1(-)         | LTS with MM 4.8-1(-)           |

**Table ES-3. Comparison of Impacts of the Alternatives**

| Environmental Impact <sup>1</sup>  | Proposed Project                  | Alternative 1: No Project | Alternative 2: Reduced Scope        | Alternative 3: Reduced Parking      |
|--|-----------------------------------|---------------------------|-------------------------------------|-------------------------------------|
| <b>4.9 Noise</b>   |                                   |                           |                                     |                                     |
| 4.9-1 The proposed project could result in generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project substantially above levels without the project or in excess of standards established in the City’s general plan or noise ordinance, or applicable standards of other agencies. | LTS with MM 4.9-1 4.9-2 and 4.9-3 | NI▼                       | LTS with MM 4.9-1, 4.9-2 and 4.9-3▼ | LTS with MM 4.9-1, 4.9-2 and 4.9-3▼ |
| <b>4.10 Public Utilities</b>   |                                   |                           |                                     |                                     |
| Public Utilities (general)   | LTS                               | NI▼                       | LTS▼                                | LTS(-) / ▼ <sup>2</sup>             |
| <b>4.11 Transportation and Circulation</b>   |                                   |                           |                                     |                                     |
| 4.11-1 The proposed project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.   | LTS with MM 4.11-1                | NI▼                       | LTS▼                                | LTS with MM 4.11-1(-)               |

**Notes:**

- ▲ Alternative is likely to result in greater impacts to issue when compared to proposed project.
- (-) Alternative is likely to result in similar impacts to issue when compared to proposed project.
- ▼ Alternative is likely to result in reduced impacts to issue when compared to proposed project.

NI = No impact

LTS = Less-than-significant impact

SU = Significant and unavoidable impact

MM = Mitigation Measure

- 1 The environmental topics that had significant impacts (significant and unavoidable, or requiring mitigation to reduce the impact to a less-than-significant level) include those specific impacts within the table, while the environmental topics with no significant impacts are summarized.
- 2 Under Alternative 3, only the solid waste impact from the Public Utilities section would be reduced in severity. All other utilities impacts would remain the same or similar to the proposed project.

As indicated in Table ES-3, Alternative 1, the No Project Alternative would result in the fewest environmental impacts and would be considered the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Based on the analysis in Chapter 6, the environmentally superior alternative would be the Reduced Development Alternative, or Alternative 2 because it would reduce the transportation impact from the proposed project to a less-than-significant impact with no mitigation required and would reduce impact severity (but would not change impact determinations) in the topics of air quality, aesthetics, energy, GHG emissions, noise, and public utilities. Alternative 2 would reduce impacts regarding aesthetics and GHG emissions; however, it is important to note that these impacts would still remain significant and unavoidable under this alternative the same as the proposed project. Comparably, the Reduced Parking Alternative (Alternative 3) would not remove mitigation required to address the transportation impact and would result in fewer reductions to GHG emissions and demand for water, wastewater and solid waste disposal compared to Alternative 2.

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# 1 Introduction and Scope of the EIR

## 1.1 Purpose and Intended Use of this EIR

The City of Stockton (City), as the lead agency under the California Environmental Quality Act (CEQA), has prepared this Draft Environmental Impact Report (EIR) to inform responsible, trustee and local agencies, the general public, and the local community regarding the potential significant environmental effects resulting from implementation of the St. Joseph’s Medical Center of Stockton Hospital Expansion Project (“proposed project”), as well as feasible measures to mitigate those significant effects along with an analysis of alternatives to the proposed project. This Draft EIR was prepared in compliance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC], Section 21000 et seq.), the CEQA Guidelines (14 CCR 15000 et seq.). The EIR is a project-level EIR as defined in CEQA Guidelines Section 15061, and thus examines “all phases of the project including planning, construction, and operation.”

As described in CEQA Guidelines Section 15121(a), an EIR is an informational document that assesses the reasonably foreseeable environmental effects of a project, as well as identifies potentially feasible mitigation measures and project alternatives that could reduce or avoid adverse environmental impacts.

## 1.2 Project Background and Overview

Port City Operating Company, LLC, doing business as St. Joseph’s Medical Center of Stockton (“St. Joseph’s”), is the applicant for this project, which includes preparation of a Master Development Plan (MDP) that establishes the foundation for the hospital expansion and provides a single, unified concept for future growth of the St. Joseph’s Medical Center of Stockton (“Medical Center”) campus.<sup>1</sup> The MDP would serve as the primary land use and regulatory document that establishes the vision, standards, and strategies to guide development of the Medical Center. The MDP is intended to provide flexibility and simplify the City’s review of subsequent development and minor modifications by establishing a Site Master Plan, development standards, and design guidelines, to guide, manage, administer, and monitor future development accompanied by the Public Facilities Financing Plan (PFFP) and the Development Agreement (DA), as well as other related project approvals.

The City’s Envision Stockton 2040 General Plan designates the Medical Center campus (bounded by E. Cleveland Street to the north, E. Harding Way to the south, N. California Street to the west, and Cemetery Lane to the east) as Administrative Professional and Commercial. Some of the off-campus properties have a General Plan designation of Medium Density Residential. A majority of the Medical Center campus properties are zoned Commercial, Office (CO); a portion of the Medical Center campus, located south of E. Maple Street is zoned Commercial, General (CG) and the parcels between Chestnut Street and McCloud Avenue are zoned CO and Residential, Medium (RM), and the parcel at 2510 N. California Street is zoned CO. The Medical Center is an allowed use within the CO and CG zoning designations.

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<sup>1</sup> The buildings within the main physical location of the Medical Center campus are referred to as “on-campus.” Several parcels west of N. California Street that are considered part of the Medical Center and are within the scope of the MDP are referred to as “off-campus.”



## Project Location

The existing 18.7-acre Medical Center campus is located within the City and is generally bounded by E. Cleveland Street to the north, E. Harding Way to the south, N. California Street to the west, and Cemetery Lane to the east. The Main Hospital building, located at 1800 N. California Street, is approximately 1.3 miles north of State Route (SR) 4, 2.3 miles west of SR 99, and 2.6 miles east of Interstate 5 (I-5) (see Figure 2-1 in Chapter 2, Project Description).

## Project Description

The MDP includes a Site Master Plan, which depicts a new main hospital building (“Acute Care Hospital Tower”), a new multistory Parking Structure, replacement of the existing Central Utility Plant, a potential new Plant Maintenance building, expansion of the existing Generator building and other required support facilities within the Medical Center campus boundaries, along with new water, wastewater, and storm drain facilities. To accommodate the project, up to six (6) existing buildings would be removed, along with a surface parking lot and possibly a portion of the North Wing building.

The MDP includes a near-term expansion of the Medical Center that would occur mostly within the existing campus boundaries, with some temporary structures and temporary parking located off-campus, on adjacent or near-adjacent properties. Development of the proposed project would occur as follows:

- (1) the “Initial Expansion” phase (phases 1-4, which would include building demolition and site preparation in Phase 1),
- (2) a future “Phase 5 Expansion,” which is expected to occur on land within the Medical Center campus, and
- (3) a “Future Expansion” phase that would likely require additional nearby lands.

The MDP also factors in administrative flexibility to allow St. Joseph’s the ability, to accommodate over the life of the Plan, any changing federal and state regulations (for example seismic retrofit requirements), evolving medical services and technology, project budgets and schedules, and community and regional medical needs. Two (2) options (Option A and Option B) are presented in the MDP, involving the locations of the Central Utility Plant and Plant Maintenance building. Option A includes placing the new Central Utility Plant building at the northeast corner of the Acute Care Hospital Tower and relocating the new Plant Maintenance building at the corner of E. Cleveland Street and Cemetery Lane. Option B places the new Central Utility Plant building at the corner of E. Cleveland Street and Cemetery Lane with no change to the existing Plant Maintenance building.

The Initial Expansion, anticipated to be built over four (4) phases, would include removal of existing buildings and other site preparation work, construction of a new Acute Care Hospital Tower, along with a new multistory Parking Structure, Central Utility Plant, Plant Maintenance building, and other required support facilities on and off the existing Medical Center campus. New water and sewer infrastructure is anticipated to serve the new buildings. Chapter 2, Project Description, provides more details specific to the various project elements.

## 1.3 Scope of the EIR

This EIR evaluates the direct and reasonably foreseeable indirect environmental impacts of the proposed project. In doing so, the EIR establishes the existing environmental resources or conditions within the project site, analyzes potential impacts on those resources due to implementation of the proposed project, and identifies mitigation measures to reduce significant impacts. Where project specific information is available this EIR quantifies and/or evaluates project impacts at a level of detail commensurate with information available at the time the analysis was



conducted. Although the proposed project is not yet fully designed or fully engineered, the technical, economic, and environmental characteristics of the proposed project are sufficiently developed to allow for meaningful project-level environmental review.

Based on a review of the proposed project elements, the results of the Environmental Checklist or Initial Study (IS) prepared for the project (see Appendix B), and comments received during the Notice of Preparation (NOP) public review period (see Appendix A for a copy of the NOP and comments received), the City determined that the following technical issue areas should be addressed in detail in the EIR, as opposed to Appendix B, which is also part of the EIR and also subject to public and agency review and comment:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Greenhouse Gases
- Noise and Vibration
- Public Utilities
- Transportation and Circulation

The technical issue areas are presented in Sections 4.1 through 4.11 in Chapter 4. An evaluation of land use and planning is included in Chapter 3.

The topics of agriculture and forestry resources, hydrology and water quality, mineral resources, population and housing, public services, recreation, and wildfire are not addressed in Chapter 4 because impacts in these areas would be less than significant or result in no impact based on the analysis contained in the IS prepared for the project (see Appendix B). With respect to impacts in these areas, Appendix B satisfies the requirements of CEQA Guidelines Section 15128, which provides that “[a]n EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study.”

The Alternatives chapter of the EIR (Chapter 6, Alternatives) was prepared in accordance with Section 15126.6 of the CEQA Guidelines. CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modifications or alternatives are not required, however, where significant environmental impacts would not occur.

## 1.4 CEQA Process

### Notice of Preparation

In accordance with CEQA Guidelines Section 15082, the City circulated an NOP for public and agency review from December 17, 2021 to January 18, 2022 (see Appendix A). The purpose of the NOP is to provide notification that an EIR for the proposed project is to be prepared and to solicit guidance on the scope and content of the document. A summary of the comments received on the NOP is included in the Executive Summary.

### Draft EIR and Public Review

This Draft EIR is being circulated for public review and comment for a period of 45 days pursuant to CEQA Guidelines Section 15105. The 45-day public review period for the Draft EIR will be from April 17, 2023, through June 1, 2023.

The public can review the Draft EIR at the following address during normal business hours (Monday through Friday, 8 a.m. to noon and 1 p.m. to 5 p.m.) or on the City's website at: <http://www.stocktonca.gov/government/departments/communityDevelop/cdPlanEnv.html>

City of Stockton Community Development Department  
345 N. El Dorado Street  
Stockton, California 95202

The City encourages all comments on the Draft EIR to be submitted in writing. All comments or questions regarding the Draft EIR should be addressed to:

City of Stockton Community Development Department  
Attention: Nicole Moore, Planning Manager  
345 N. El Dorado Street  
Stockton, California 95202  
Email: [nicole.moore.CTR@stocktonca.gov](mailto:nicole.moore.CTR@stocktonca.gov)

## Final EIR

Upon completion of the Draft EIR public review period, a Final EIR will be prepared that will include written responses to all significant environmental issues raised in comments received during the public review period. The Final EIR will also include a Mitigation Monitoring and Reporting Program (MMRP) prepared in accordance with Public Resources Code Section 21081.6(a)(1) and CEQA Guidelines Section 15097. The Final EIR will address any revisions to the Draft EIR made in response to City staff, agency or public comments. The Draft EIR and Final EIR together will comprise the EIR for the proposed project. Before the City can approve the project, its decision-making body, the City Council, must first certify that the EIR has been completed in compliance with CEQA, that the City Council has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the City. The City Council is also required to adopt Findings of Fact, along with a Statement of Overriding Considerations if there are any significant and unavoidable impacts where no feasible mitigation measures or alternatives are available to reduce the severity of such significant unavoidable impacts (see CEQA Guidelines Sections 15091 and 15093).

## EIR Adequacy

The level of detail contained throughout this EIR is consistent with Section 15151 of the CEQA Guidelines, which states the following:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

CEQA Guidelines Section 15204 adds that:

[T]he adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project.

## 1.5 Lead, Responsible and Trustee Agencies

### Lead Agency

In accordance with CEQA Guidelines Sections 15050 and 15367, the City of Stockton is the “lead agency” for the project. The lead agency is defined as the “public agency which has the principal responsibility for carrying out or disapproving a project.” The lead agency is also responsible for determining the scope of the environmental analysis, preparing the EIR, and responding to comments received on the Draft EIR. Prior to making a decision to approve a project, the lead agency’s decision-making body is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body has reviewed and considered the information in the EIR, and that the EIR reflects the lead agency’s independent judgment.

### Responsible Agencies

Responsible agencies are state, regional, and local public agencies, other than the lead agency, that have some discretionary authority to carry out or approve a project or that are required to approve a portion of the project or approve a permit for which a lead agency is preparing or has prepared an EIR or IS/Negative Declaration (CEQA Guidelines Section 15096). The following agencies would potentially act as responsible agencies for the purposes of this project:

- Central Valley Regional Water Quality Control Board
- San Joaquin Valley Air Pollution Control District
- California Department of Health Care Access and Information
- California Department of Transportation (Caltrans)

### Trustee Agencies

Trustee agencies are designated public agencies with legal jurisdiction over natural resources that are held in trust for the people of California and that would be affected by a project, whether or not the agencies have authority to approve or implement the project (CEQA Guidelines Section 15386). The following agency was identified as a trustee agency with potential jurisdiction over the proposed project:

- California Department of Fish and Wildlife

## 1.6 Use of Previously Prepared Environmental Documentation

This Draft EIR relies in part on data, environmental evaluations, mitigation measures, and other components of EIRs and plans prepared by the City for areas within or adjacent to the project vicinity. These documents are listed below and used as source documents for this EIR. All of these City documents are available for public review during

normal business hours (Monday through Friday, 8 a.m. to noon and 1 p.m. to 5 p.m.) at the City of Stockton Community Development Department, 345 N. El Dorado Street, Stockton, California 95202 or on the City's website at <http://www.stocktonca.gov/>.

- Envision Stockton 2040 General Plan and EIR
- City of Stockton Municipal Code
- Stockton Citywide Design Guidelines
- City of Stockton Stormwater Management Plan
- City of Stockton Emergency Operations Plan
- City of Stockton Bicycle Master Plan

## 1.7 Organization of the Draft EIR

The Draft EIR is organized in the following chapters: Executive Summary, Introduction and Scope of the EIR, Project Description, Land Use and Planning, Environmental Analysis (to include technical sections that address Impacts and Mitigation Measures), CEQA Considerations, Alternatives, EIR Preparers, and Appendices.

**Chapter ES, Executive Summary** — Provides an overview of areas of known controversy and issues to be resolved and identifies project alternatives. This chapter also summarizes the elements of the proposed project and the environmental impacts that could result from implementation of the project and provides a table which lists impacts, describes proposed mitigation measures, and indicates the level of significance of impacts before and after mitigation.

**Chapter 1, Introduction and Scope of the Draft EIR** — Provides an introduction and overview of the EIR process and describes the intended use of the EIR and the review process.

**Chapter 2, Project Description** — Provides a detailed description of the proposed project, including its location, background information, project history, project objectives, and technical characteristics.

**Chapter 3, Land Use and Planning** – This chapter describes consistency with the City's General Plan and the MDP.

**Chapter 4, Environmental Analysis** — Included in this chapter are the technical sections that evaluate project impacts. Each technical section describes the baseline environmental setting and provides an assessment of potential project impacts. Each section is divided into four sub-sections: Introduction, Environmental Setting, Regulatory Background, and Impacts and Mitigation Measures (project-specific and cumulative).

**Chapter 5, CEQA Considerations** — Provides information required by CEQA including a summary of significant environmental impacts, significant and unavoidable environmental impacts, significant irreversible changes to the environment, potential secondary impacts resulting from growth inducement, and an overview of project alternatives.

**Chapter 6, Alternatives** — Describes and compares alternatives to the proposed project.

**Chapter 7, EIR Preparation** — Lists report authors who provided technical assistance in the preparation and review of the EIR.

**Appendices** — Includes various documents and data that support the analysis presented in the Draft EIR.

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## 2 Project Description

### 2.1 Introduction

The St. Joseph’s Medical Center of Stockton Hospital Expansion Project (“proposed project”) involves preparation of a Master Development Plan (MDP) that establishes the foundation for the expansion of acute care medical services and provides a single, unified concept for future growth of the St. Joseph’s Medical Center of Stockton (“Medical Center”). The MDP, proposed by the project applicant (Port City Operating Company, LLC, doing business as St. Joseph’s Medical Center of Stockton [“St. Joseph’s”]), includes a Site Master Plan, which depicts a new multistory Parking Structure, new main hospital building (“Acute Care Hospital Tower”), replacement of the existing Central Utility Plant, a potential new Plant Maintenance building, and expansion of the existing Generator building, the addition of new heliports, and other required support facilities, including temporary uses and facilities, within the Medical Center campus. Development of the proposed project would occur over a span of approximately four (4) phases (“Initial Expansion”), and a possible fifth (5th) phase (“Phase 5”), with an additional Future Expansion phase likely to include lands in the project vicinity. The proposed project also includes separate work, which can occur across all phases or as a separate phase, that is necessary to complete required seismic and other safety retrofits for buildings and support utilities mandated by state and federal laws.

### 2.2 Project Location

The proposed project incorporates the existing main Medical Center campus, which consists of approximately 18.7 acres and is generally bounded by E. Cleveland Street to the north, E. Harding Way to the south, N. California Street to the west, and Cemetery Lane to the east in the City of Stockton (City) (see Figure 2-1). The proposed project also includes off-campus properties owned by Port Operating Company, LLC or the Dignity Health Medical Foundation, including parcels that are proposed for short-term uses during and after construction (five parcels located at N. California Street and E. Maple Street). There are also six other off-campus parcels that are included in the MDP. These off-campus parcels consist of two along Chestnut Street (one of which is a residence); one along N. California Street with two adjacent parcels along McCloud Avenue east of N. California Street; and another along N. California Street, shown on Figure 2-2. This group of off-campus parcels are mostly used for medical offices, parking, and a behavioral health center.

The Medical Center campus is located at 1800 N. California Street, approximately 1.3 miles north of State Route (SR) 4, 2.3 miles west of SR 99, and 2.6 miles east of Interstate 5. The current Medical Center campus occupies multiple parcels that are physically constrained and present a challenge in expanding medical care to serve the growing region. Due to site constraints, the Medical Center also currently relies upon off-campus properties to house medical support services, some out-patient treatment and some parking. With the exception of unimproved off-campus properties that are identified in the MDP to be used for (modular) structures or parking (both during construction and after completion of construction for non-acute care services and staff support), the off-campus properties are not proposed for development at this time, but are incorporated into the project’s MDP to allow for application of the MDP’s proposed Development Standards and Design Guidelines in the event any of these

properties has a changed use in the future.<sup>1</sup> The proposed project would involve the 30 parcels listed in Table 2-1. The boundary of the MDP and the project site is depicted in the existing site plan in Figure 2-3.

**Table 2-1. Assessor's Parcel Numbers and Property Description**

| APN                            | Description   |
|--------------------------------|---|
| <b>Existing Medical Center</b> |   |
| 127-150-28                     | Surface Parking (Pavilion)                              |
| 127-150-29                     | Surface Parking (Pavilion)                              |
| 127-150-30                     | Surface Parking (Pavilion)                              |
| 127-150-31                     | Surface Parking (Pavilion)                              |
| 127-150-32                     | Surface Parking (Pavilion)                              |
| 127-150-33                     | Surface Parking (Pavilion)                              |
| 127-164-06                     | Classroom Building (564 E. Cleveland St.)               |
| 127-164-07                     | Generator Building                                      |
| 127-164-08                     | Surface Parking   |
| 127-164-15                     | Surface Parking   |
| 127-164-16                     | Single-Family Residence (554 E. Cleveland St.) (vacant) |
| 127-164-22                     | Health Care Clinical Laboratory Building                |
| 127-173-28                     | Surface Parking, Utility Plant, Water Tank              |
| 127-174-30                     | Surface Parking, Engineering Shop, Cooling Tower Yard   |
| 127-180-44                     | Main Hospital (1800 N. California Street)               |
| 127-190-08                     | Surface Parking (Pavilion)                              |
| 127-190-09                     | Surface Parking (Pavilion)                              |
| 127-190-10                     | Surface Parking (Pavilion)                              |
| 127-190-32                     | Women and Children's Pavilion                           |
| <b>Off-campus</b>              |   |
| 125-360-15 <sup>1</sup>        | Behavioral Health Center (2510 N. California Street)    |
| 127-140-16 <sup>1</sup>        | Duplex Residence  |
| 127-150-23                     | Surface Parking   |
| 127-150-24                     | Surface Parking   |
| 127-150-25                     | Surface Parking   |
| 127-150-48                     | Surface Parking   |
| 127-150-49                     | Surface Parking   |
| 127-172-11 <sup>1,2</sup>      | Surface Parking   |
| 127-172-12 <sup>2</sup>        | Surface Parking   |
| 127-172-16 <sup>1,2</sup>      | Medical Offices (1901 N. California Street)             |
| 127-180-16 <sup>1</sup>        | Single-Family Residence                                 |

**Source:** St. Joseph's Medical Center 2022.

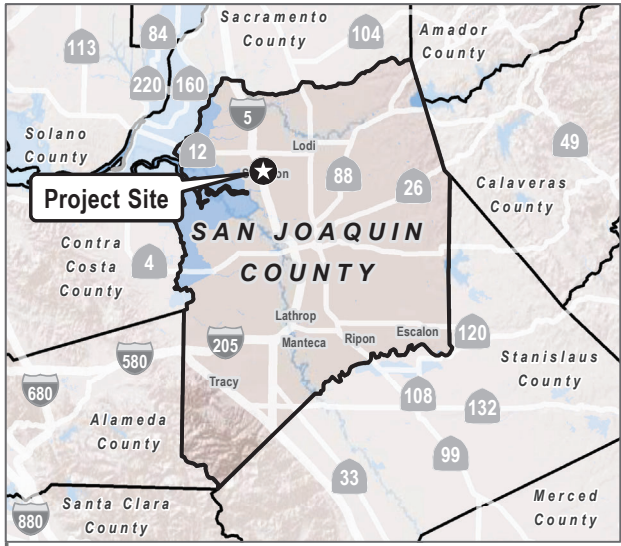
**Notes:** Unless otherwise noted, all parcels are owned by Port City Operating Company, LLC doing business as St. Joseph's Medical Center.

<sup>1</sup> No changes to these parcels are proposed under this project.

<sup>2</sup> Owned by Dignity Health Medical Foundation.

<sup>1</sup> Note: There is one privately owned parcel along E. Maple Street, between N. California Street and Cemetery Lane that is not included in the MDP.





SOURCE: Bing Imagery 2021; Open Street Map 2020; County of San Joaquin 2019



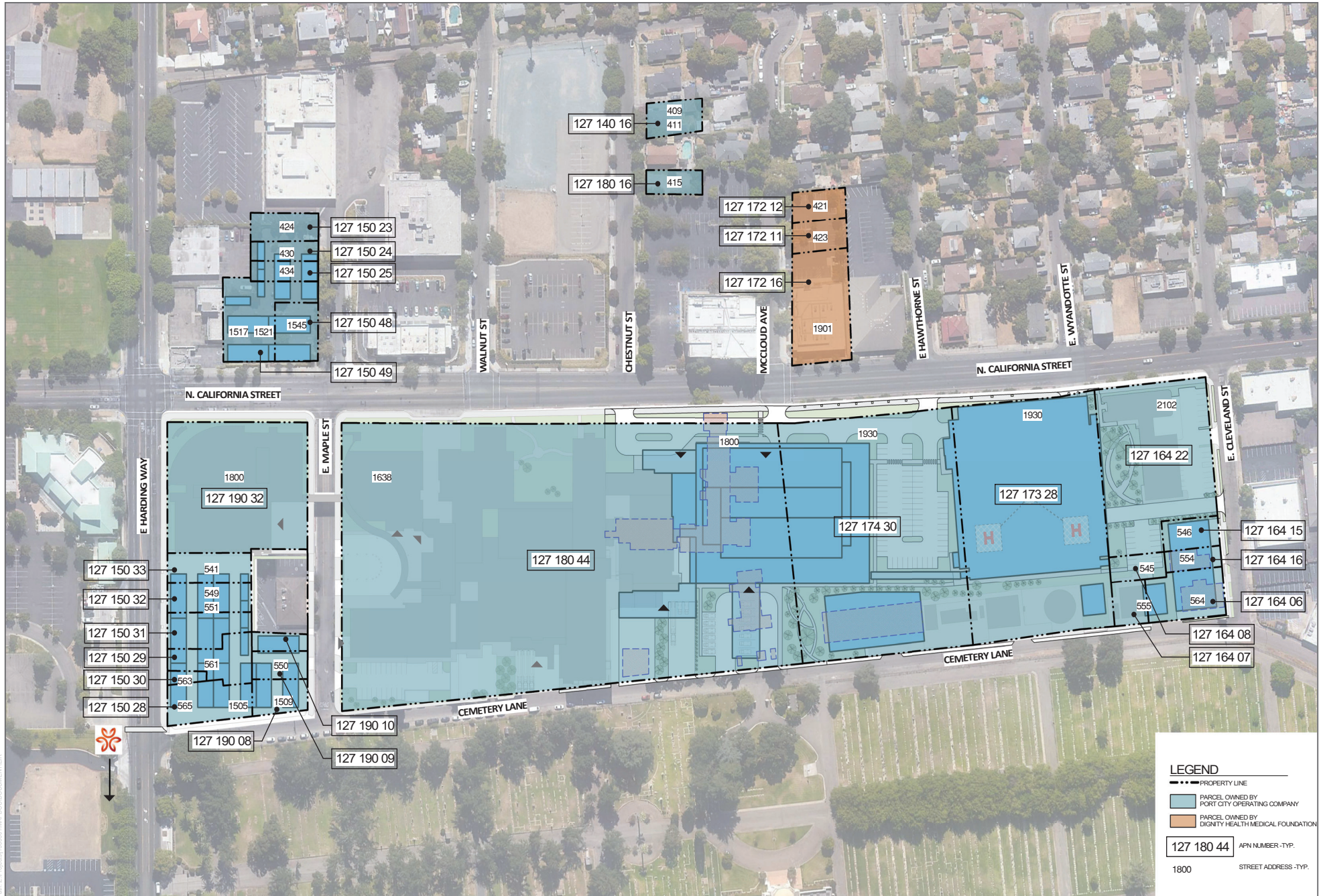
FIGURE 2-1

Project Location

St. Joseph's Medical Center of Stockton Hospital Expansion Project

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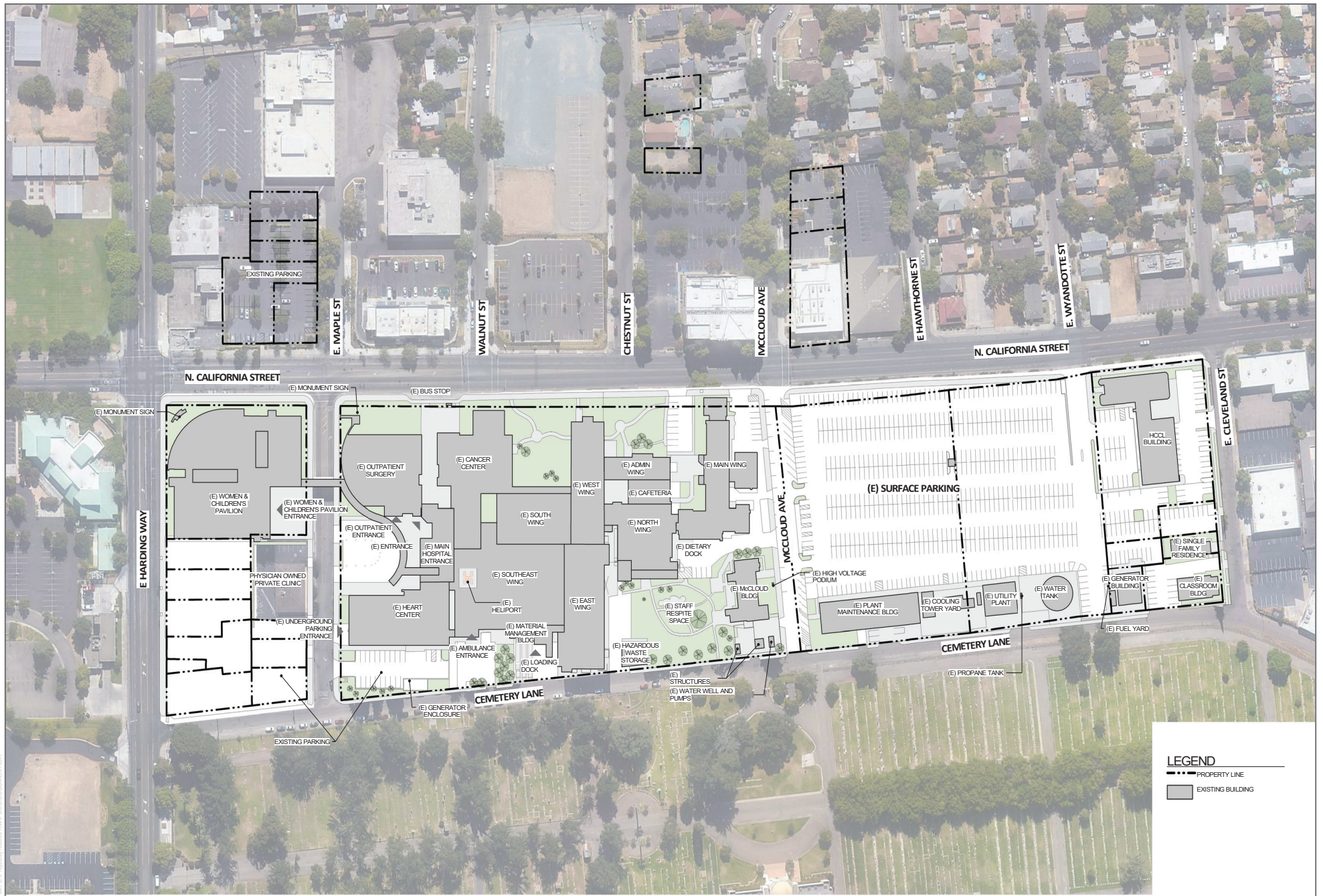


Source: Dignity Health, 2022

**FIGURE 2-2**  
**Parcel Map**

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Source: Dignity Health, 2022

**FIGURE 2-3**  
Existing Project Site

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## 2.3 Existing Project Site

### 2.3.1 Land Use and Zoning

The City's Envision Stockton 2040 General Plan (adopted December 4, 2018) designates the project site for Administrative Professional and Commercial. The site is zoned for Commercial, Office (CO), Commercial, General (CG), and the off-campus parcels along N. California Street and E. Maple Street are zoned CO and Residential, Medium Density (RM) (City of Stockton 2018).

### 2.3.2 Surrounding Land Uses and Setting

The surrounding area is developed with a mix of uses. To the north and west are residential uses zoned Residential, Low Density (RL) to the north and Residential, Medium Density (RM) to the west; commercial uses zoned Commercial, Office (CO) are also located to the west and Commercial, General (CG) uses to the south. The San Joaquin Catholic Cemetery borders the site to the east, and County and City facilities (which include County medical clinics, a County behavioral health center, and a City fire station) border the site to the south; these properties are zoned for Public Facilities (PF).

### 2.3.3 Project Site Conditions

The Medical Center campus currently consists of 25 buildings, surface parking lots, and numerous accessory structures with three (3) buildings located off-campus. Nearly all patient services are provided in buildings south of the intersection of N. California Street and McCloud Avenue. These include the Main Hospital building, Outpatient Surgery, Heart Center, Cancer Center, and Patient Pavilion, as shown on Figure 2-3. Five buildings of the Medical Center campus currently provide patient care services: East Wing, North Wing, South Wing, Women and Children's Pavilion, and the Southeast Wing. The Main Wing and McCloud Building are part of this central complex but are currently underutilized because the structures are unable to house acute care functions due to building age and lack of seismic compliance. North of the intersection of N. California Street and McCloud Avenue is a staff surface parking lot, campus Plant Maintenance facilities, a laboratory building, classroom building, and an unoccupied single-family residence. An outdoor respite area currently used by hospital employees is located near the Main Wing and the McCloud Building.

The majority of the Medical Center campus properties are zoned CO; a portion of the Medical Center, located south of E. Maple Street is zoned CG; the parcels between Chestnut Street and McCloud Avenue are zoned CO and RM; and the parcel at 2510 N. California Street is zoned CO, as shown in Figure 2-4. The proposed project is consistent with the City's General Plan Land Use designations, which are Administrative Professional, and Commercial, and the underlying zoning. No changes to the General Plan land use designation or zoning are contemplated by the proposed project.



## 2.4 Project Description

### 2.4.1 Project Purpose and Objectives

California Environmental Quality Act (CEQA) Guidelines Section 15124(b) requires that the Project Description include a statement of the objectives of the project. The objectives should describe the purpose of the project and are intended to assist the lead agency in developing a reasonable range of alternatives for consideration in the EIR.

The project applicant's vision is to be known as the premier health care delivery network and teaching institution for the Northern San Joaquin Valley and provided is the underlying purpose of the project. The proposed project would accomplish the following:

- Provide a broad range of healthcare services to Stockton and the surrounding Northern San Joaquin Valley to further establish St. Joseph's Medical Center of Stockton as a regional provider of health care services.
- Expand and modernize existing medical facilities to meet current patient needs and the anticipated growth in the Northern San Joaquin Valley.
- Broaden the established medical learning environment that serves as a premier teaching institution for the Northern San Joaquin Valley that will support historical and anticipated shortages of medical professionals in the region.
- Address seismic requirements imposed by Senate Bill 1953.<sup>2</sup>

The project objectives for purposes of this EIR include:

- Provide additional capacity for acute care treatment for patients of all income levels and all payer sources in Stockton and the surrounding northern San Joaquin valley.
- Enhance building capacity for utilization of technology in the provision of health care services.
- Modernize and upgrade the existing Medical Center to meet seismic retrofit requirements as set forth in Senate Bill 1953 and do so without the temporary loss of use of patient beds.
- Improve flexibility of patient bed arrangements to meet surges in need for medical care such as was experienced with the COVID-19 Pandemic.
- Increase quantity and quality of space for graduate educational services with the goal of retaining physicians and other medical professional and technical staff trained at the Medical Center in Stockton and the surrounding northern San Joaquin valley.
- Improve quantity, quality, and proximity of parking for patients, visitors, and staff.
- Locate new buildings within a reasonable proximity to the existing medical center facilities to facilitate easy access for patients, visitors, and staff.
- Change internal site circulation to enhance emergency access for ambulances and patients transported by other third parties, focus non-patient access to the rear of the Medical Center, and complement City objectives of increasing reliance upon bicycle travel both around and into the site.

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<sup>2</sup> Senate Bill 1953 was signed into law in September 1994. It amended the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983 and was added to Section 130060 of the Health and Safety Code.

- Update existing utility connections to accommodate enhanced medical services and provide sufficient emergency back-up for expanded capacity.
- Create both short-term construction jobs related to development, including grading, infrastructure and building construction, and permanent employment-generating uses, consistent with City objectives for creation of employment opportunities for residents.
- Implement a Site Master Plan that maximizes the use and redevelopment of underutilized property to provide new opportunities for the construction of modernized, acute care facilities.
- Provide options for additional helicopter landing and parking to improve access for patients transported by helicopter to the expanded and relocated emergency facilities, and to accommodate a future trauma center designation should regional needs arise in the future.
- Maximize the efficient use of existing and very limited available land and buildings while replacement and modernization of some buildings are underway.

## 2.4.2 Project Site Master Plan

The proposed project includes a MDP that establishes the foundation for the Medical Center campus expansion. The MDP describes and provides a Site Master Plan which includes a new multistory Parking Structure, Acute Care Hospital Tower, replacement of the existing Central Utility Plant, a potential new Plant Maintenance building, expansion of the existing Generator building, the addition of new heliports, and other required support facilities within the main Medical Center campus boundaries. This portion of the campus slated for development comprises approximately nine (9) acres. Future opportunities for additional medical buildings and required parking to serve such facilities are also included under the MDP as part of a longer-term planning horizon. The Site Master Plan is depicted in Figure 2-5.

Development of the proposed project would be phased as follows: (1) the Initial Expansion phase (phases 1-4, which would include building and site demolition, site preparation, relocation of support services and parking, construction of the new Parking Structure, the new Acute Care Hospital Tower, and related support buildings; (2) Phase 5 Expansion, which is expected to occur on land within the Medical Center campus, and (3) a Future Expansion phase that would likely require additional off-site lands in the vicinity of the Medical Center. The Initial Expansion phase of the Medical Center would occur mostly within the existing campus boundaries, with some modular structures and parking located off-campus. Seismic and other safety retrofits for buildings and support utilities are described as a separate phase, which can occur at the same time as phases 1-5, or during a separate construction period as may be required to meet state law requirements.

The MDP also factors in flexibility to allow St. Joseph's the ability to accommodate over the life of the plan any changing federal and state regulations (for example, seismic retrofit requirements), evolving medical services and technology, project budgets and schedules, and community and regional medical needs. Two (2) options are presented in the MDP, involving the locations of the Central Utility Plant and Plant Maintenance building. Option A includes placing the new Central Utility Plant building at the northeast corner of the Acute Care Hospital Tower and relocating the new Plant Maintenance building at the corner of E. Cleveland Street and Cemetery Lane. Option B places the new Central Utility Plant building at the corner of E. Cleveland Street and Cemetery Lane with no change to the existing Plant Maintenance building.

Table 2-2 summarizes the project components under the Initial Expansion phase and the Phase 5 Expansion.

**Table 2-2. Expansion Building Summary<sup>1</sup>**

| Building Name                                 | Approximate Building Area (Square Feet [sf])                  | Use                                | Building Height <sup>2</sup>   |
|---|---|------------------------------------|--|
| <b>Initial Expansion (Phases 1-4)</b>         |   |                                    |  |
| New Acute Care Hospital Tower                 | Up to 331,000 sf  | Medical Services                   | Up to five (5) stories (115 feet [ft] excluding mechanical screen) <sup>3</sup>  |
| New Multistory Parking Structure              | Up to 1,980 parking stalls<br>Up to 800,000 sf                | Parking and Heliports <sup>3</sup> | Nine (9) tiers elevated <sup>4</sup><br>115 ft to top of parking deck parapet, excluding mechanical screen and heliports |
| New Central Utility Plant                     | Up to 30,000 sf   | Support                            | Up to two (2) stories (60 ft)  |
| New Fuel Tank Yard                            | Up to 3,500 sf  | Support                            | 55 ft  |
| New Generator Building Addition               | Up to 3,500 sf  | Support                            | 55 ft  |
| New Plant Maintenance Building                | Up to 18,000 sf   | Support                            | Up to two (2) stories (55 ft)  |
| <b>Phase 5 Expansion</b>                      |   |                                    |  |
| Acute Care Hospital Tower II                  | Potential expansion up to 150,000 sf                          | Medical Services                   | Up to five (5) stories (80 ft excluding mechanical screen) <sup>3</sup>  |
| Parking Structure (location to be determined) | To be determined<br>Parking ratio of up to 5.6 stalls per bed | Parking                            | To be determined   |

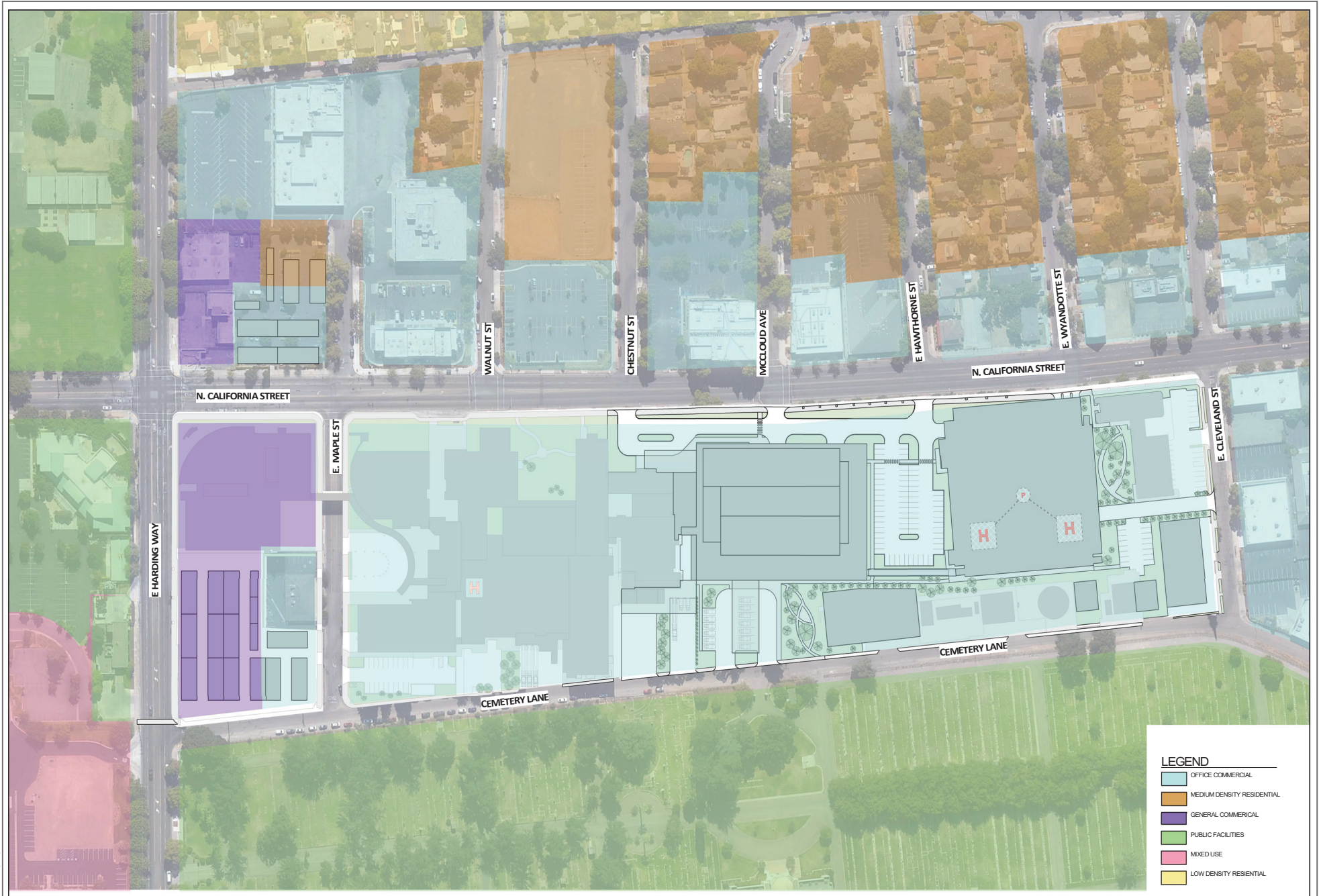
**Source:** St. Joseph's Medical Center 2022.

**Notes:**

- <sup>1</sup> Seismic and other safety retrofits for buildings and support utilities may occur at the same time as phases 1-5, or during a separate construction period as may be required to meet state requirements.
- <sup>2</sup> Building heights, exceptions and roof mounted structures for institutional buildings, expressly including hospitals, are addressed in Section 16.36.090 of the Municipal Code.
- <sup>3</sup> To accommodate design flexibility, St. Joseph's is seeking a maximum height of 115 ft.
- <sup>4</sup> The existing heliport located on the roof of the Main Hospital building would remain and up to two (2) new heliports and/or helicopter or Unmanned Aerial Vehicle (UAV) parking areas may be added on the roof of the Parking Structure.

Due to constraints of available land within the Medical Center campus, it is anticipated that a Future Expansion phase would occur on properties to be determined in the future. A Future Expansion is included in the MDP to support the continued growth of the Medical Center, and these off-campus properties may be incorporated through a future administrative process.



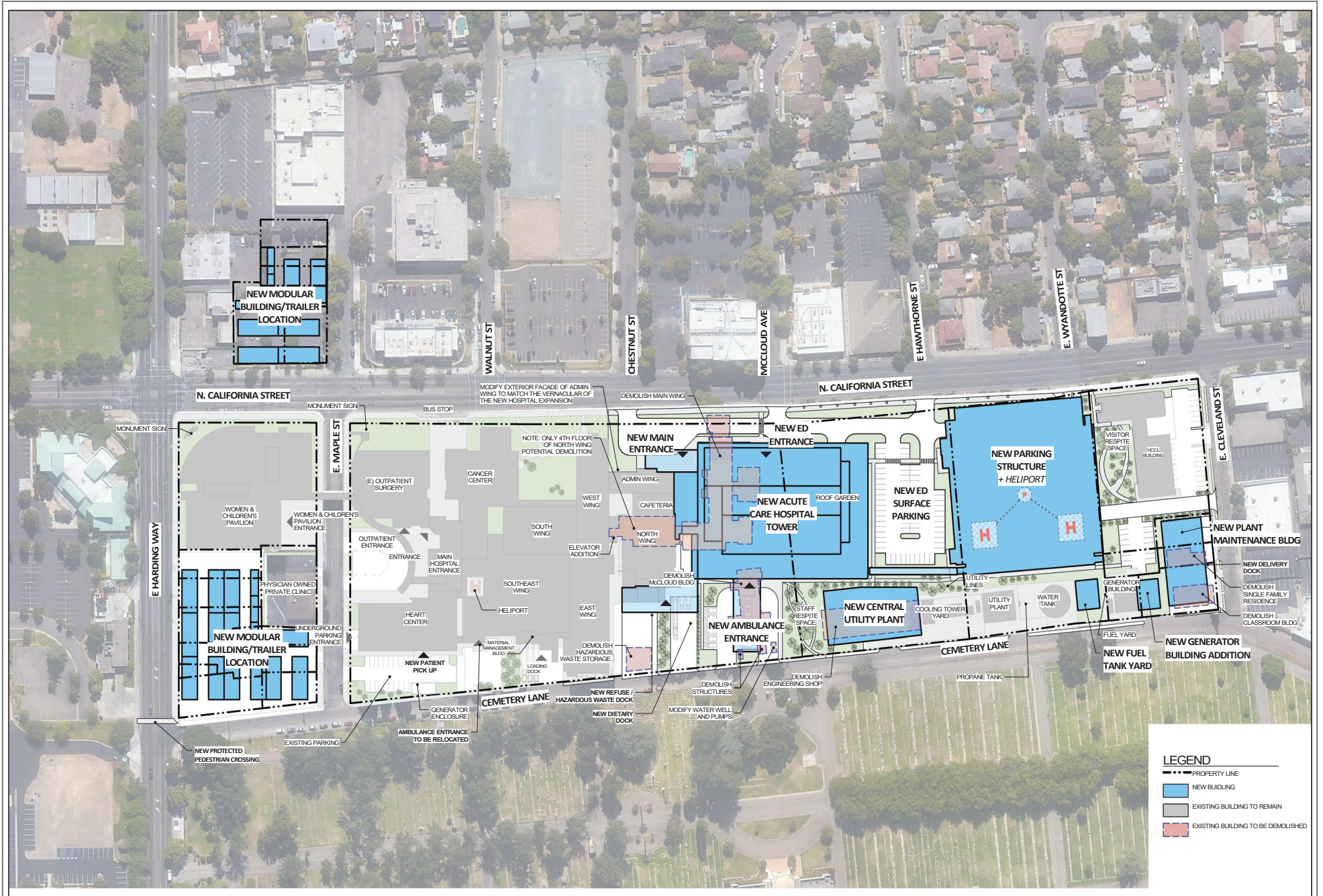


Source: Dignity Health, 2022

**FIGURE 2-4**  
Zoning

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**LEGEND**

- PROPERTY LINE
- NEW BUILDING
- EXISTING BUILDING TO REMAIN
- EXISTING BUILDING TO BE DEMOLISHED

Source: Dignity Health, 2022

**FIGURE 2-5**  
Site Master Plan

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## Initial Expansion (Phases 1–4)

The Initial Expansion phase, which is anticipated to be built over four (4) phases, would include removal of existing buildings and other site preparation work; construction of a new Parking Structure; construction of a new Acute Care Hospital Tower accommodating the expansion of acute care services; replacement of the existing Central Utility Plant and a potential new Plant Maintenance building; and construction of other required support facilities on the existing Medical Center campus. New water and sewer infrastructure is anticipated to serve the new buildings, and existing utilities in the McCloud Avenue right-of-way would need to be relocated to accommodate the new Acute Care Hospital Tower.

To accommodate the Initial Expansion, it is anticipated that approximately 365 new employees, including residents, medical staff, medical students, and facilities staff would be required over time. With the addition of these new employees, the Medical Center is anticipated to include a total of approximately 3,230 employees performing their tasks in shifts over the course of a 24-hour day.

## New Buildings

### Multistory Elevated Parking Structure and Surface Level Parking

The project proposes the option of including more vehicle parking than required by City standards based upon experience in patient, visitor and staff needs at this location and throughout the hospital system. Parking stall calculations are estimates, with a more precise number evolving as the approval process continues. In addition to the Parking Structure, surface parking with 70 spaces would be located between the Acute Care Hospital Tower and the new Parking Structure. A smaller new surface parking lot north of the Parking Structure would hold approximately 16 parking spaces, as shown on Figure 2-5.

The minimum number of bicycle parking spaces for the project is 40. Similarly, electric vehicle spaces are contemplated to be accommodated in the new Parking Structure. The number of electrical vehicle spaces required by California Building Code requirements at the time of issuance of a building permit would be the minimum number of electrical vehicle spaces provided by the project.

### Acute Care Hospital Tower

The conceptual design of the Acute Care Hospital Tower proposes a new building with a basement, a two-story base, and two (2) parallel towers above that would be up to three (3) stories each to accommodate patient beds. One design option includes a landscaped viewing area in between the two (2) buildings that would be visible from patient rooms. The height of each tower is anticipated to be a maximum of 115 feet (excluding partial basement, rooftop elevator, and mechanical equipment screening). There is no intent presently for the project to build what would be characterized as a high-rise building.

The Acute Care Hospital Tower is the primary expansion component of the project and is projected to accommodate approximately up to 331,000 square feet (sf) of inpatient acute care hospital services. This portion of the project would increase the inpatient bed count, modernize and expand the emergency department, and update and modernize the current surgery department. Major components of the acute care expansion are anticipated to include:

- An additional 24 intensive care patient beds
- An additional 120 general acute care patient beds



- A new 70-station Emergency Department
- A new entrance for ambulances and Emergency Department drop-off
- A new surgical area with 10 general operating rooms
- Capacity for future expansion of emergent care adjacent to the Emergency Department
- New Central Sterile Processing Department
- New kitchen with an expanded and modernized dining area
- New entry lobby, covered drop off and admitting department along N. California Street (new front of hospital)
- A naturally landscaped rooftop for patient viewing located in the courtyard of the hospital tower

### Accessory Structures

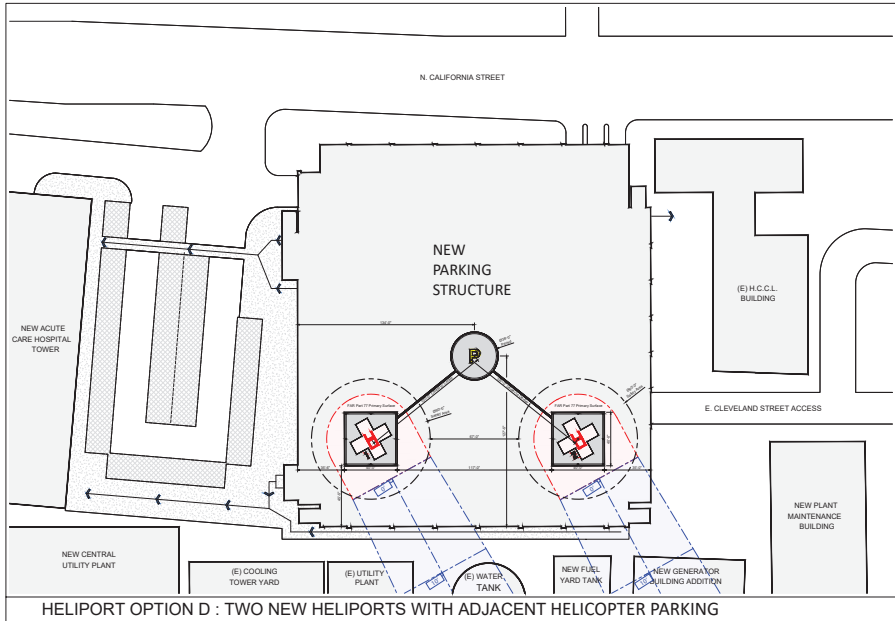
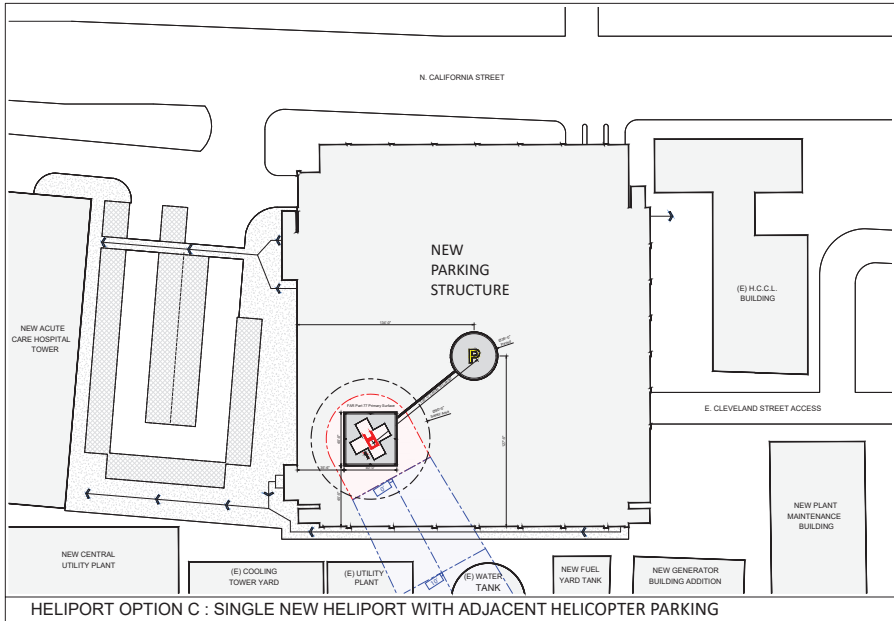
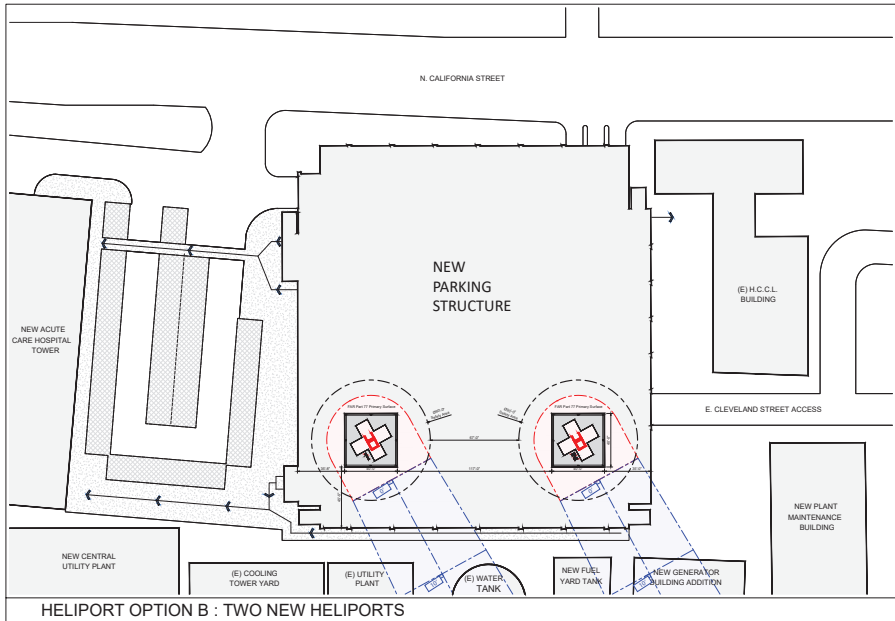
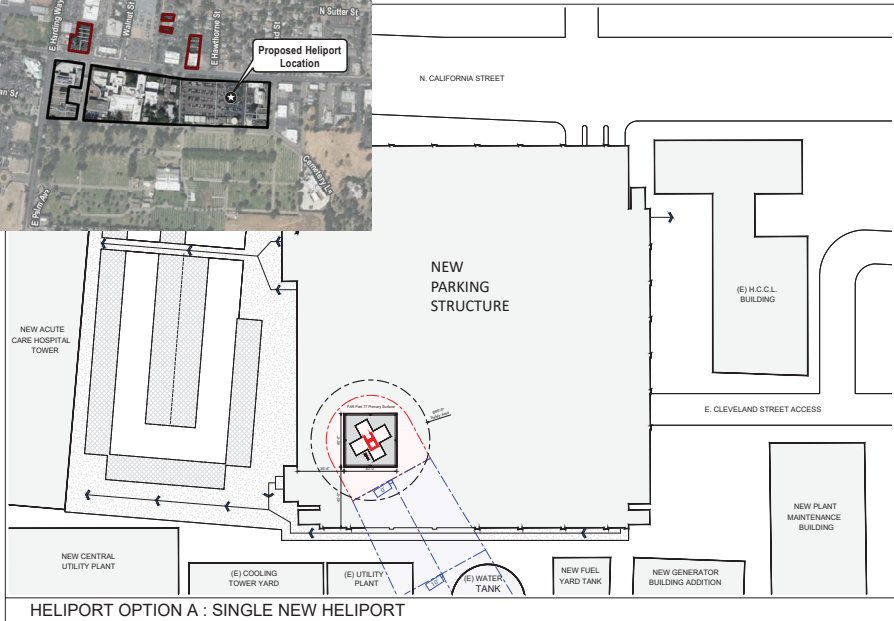
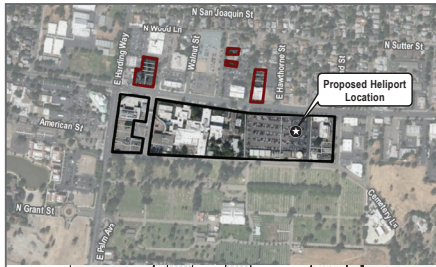
Several modifications and new structures are required to support the new Acute Care Hospital Tower. A new Generator building addition of up to 3,500 sf would include new emergency backup generators with a new fuel tank yard for additional on-site aboveground fuel storage in addition to an existing generator building adjacent to Cemetery Lane close to E. Cleveland Street. The following improvements may be modified and/or expanded: cooling tower yard, chiller room, heating hot water plant, below-grade boiler fuel storage tanks, bulk oxygen tank, medical gas bottle storage, transformers, and switchgear. The project also includes a new dietary loading dock and a new compacting/sanitizing waste dock that would also hold caged storage of hazardous materials for vendor removal, and a new secure material management loading dock with recycling container(s).

### Heliports

In addition to the existing heliport, the project includes new heliport facilities to be located on the roof of the Parking Structure to increase efficiency in patient transport to the Emergency Department, organ and medical supply transport to the Medical Center, and to minimize operational impacts on the Medical Center. The Parking Structure would also be designed to accommodate heavier weight helicopters than are presently allowed at the existing heliport on the Main Hospital building. Currently the Medical Center has averaged 9-10 helicopter flights per month over the past two (2) years. It is anticipated the number of helicopter flights may increase to approximately 15 flights per month with the project.

The project includes four (4) options for the new heliport facilities: Option A includes the construction of one (1) new heliport; Option B includes the construction of two (2) new co-located heliports; Option C is a heliport with adjacent helicopter parking area; and Option D includes two (2) heliports with an adjacent helicopter/unmanned aerial vehicle (UAV) parking area. In all options the Parking Structure would include a “gurney way” to provide safe passage from the heliport to the new Acute Care Hospital Tower via a dedicated trauma elevator within (or adjacent to) the Parking Structure, along with a covered sidewalk-level pathway to the Emergency Department. Additional equipment would include a lighted wind indicator, closed circuit camera system, and weather system that would upload weather conditions to helicopter dispatch centers. Illumination of the heliports would be as required to ensure flight safety during helicopter and/or UAV operations. The locations of the existing and planned heliport options are depicted in Figure 2-6.

Under each option, the Medical Center would allow heliport landing areas to be used by UAVs for medical-related and other emergency purposes. For example, to accommodate a request or need by a public agency to use the heliport(s) for non-medical emergencies (e.g., flood event). UAVs are presently in use for transport of medical supplies, equipment, and organs for transplant procedures. UAV operations may occur at any time.



Source: Dignity Health, 2022

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## Central Utility Plant

The proposed new Central Utility Plant would house chillers, infrastructure, and operational equipment for the Medical Center, including but not limited to a hot water boiler, hot water expansion tanks, water softeners, medical air compressors, and other equipment of a similar nature. The existing Central Utility Plant building would remain, with some of the existing equipment being demolished within the structure. A new Central Utility Plant would be constructed to accommodate operational equipment with increased capacity to serve the expanded Medical Center as well as the existing campus buildings.

The project includes two (2) options for the replacement of the existing Central Utility Plant. Each option contemplates a new free-standing two (2)-story Central Utility Plant building up to 60 feet in height and totaling approximately 30,000 sf. Option A proposes to demolish the existing Plant Maintenance building and build the new Central Utility Plant in this location at the northeast corner from the Acute Care Hospital Tower and adjacent to the existing cooling towers. Alternatively, under Option B, a new free-standing Central Utility Plant would be constructed at the corner of E. Cleveland Street and Cemetery Lane. Option A is the preferred option and is depicted on the Site Master Plan (Figure 2-5).

## Plant Maintenance Building

The project contemplates two (2) options for the existing Plant Maintenance building, dependent upon the proposed location of the Central Utility Plant. The Plant Maintenance building would house offices, shop and maintenance space, and accessory areas, to assist Medical Center campus maintenance. As mentioned above, Option A proposes to demolish the existing Plant Maintenance building. A new free-standing Plant Maintenance building up to 55 feet in height and up to 18,000 sf would be constructed at the corner of E. Cleveland Street and Cemetery Lane after demolition of the existing classroom building and vacant single-family residence. If Option B is determined to be more cost-effective, the existing Plant Maintenance building would remain. Upgrades to both exterior and interior spaces would occur to provide more efficient working environments for staff. For the purposes of this EIR, Option A is evaluated because it would include demolition of a structure followed by construction of a new building.

## Respite Areas and Community Amenity

Standards for the design and location of a new respite areas for visitors, patients, and staff would be incorporated into the MDP, with approximate locations identified on the Site Master Plan. The “Community Amenity” component of the MDP will be evaluated by the City through the entitlement process, with an acknowledgement of the significant contributions by the applicant to the community both in terms of medical support to the underserved and the significant economic benefit from the expansion of the Medical Center campus by a nonprofit hospital.

## Parcel Map and Parcel Mergers

The Medical Center campus consists of 30 parcels. The project applicant intends to combine many of these parcels through filing and approval of a tentative parcel map and parcel mergers, leaving fewer parcels on the main campus. The accompanying approved Commission Permits that would remain in place are to be identified in the Development Agreement. The Commission Use Permits that have no remaining applicability would be terminated through the adoption of the MDP and are also referenced in the Development Agreement.

## Buildings to be Demolished

The Initial Expansion phase, anticipated to be built over four (4) phases, would include removal of existing buildings and structures. A technical study that evaluates the historical significance of all buildings proposed to be demolished to accommodate the project is included in Appendix E. To accommodate the project, the following buildings and components would be removed, as shown in Table 2-3. A Demolition Site Plan (Figure 2-7) provides the framework for the structures under consideration for removal. Additional buildings may also be identified for removal in the future.

**Table 2-3. Buildings and Structures to be Removed**

| Building/Structure   | APN                       | Square Footage |
|--|---------------------------|----------------|
| Main Hospital Wing   | 127-180-44                | 45,400         |
| McCloud Building   | 127-180-44                | 19,400         |
| North Wing, 4th Floor <sup>1</sup>   | 127-180-44                | 5,408          |
| Concrete Block Structure (houses the bio-hazard autoclave and associated refuse compactor and bins) and Landscape Storage Building | 127-180-44 and 128-180-44 | 4,900          |
| Hazardous Waste Storage Building   | 127-180-44                | 1,527          |
| 564 E. Cleveland Street Classroom Building   | 127-156-06                | 3,213          |
| 554 E. Cleveland Street Single-family Residence <sup>2</sup>   | 127-164-16                | 1,258          |
| Plant Maintenance Shop Building  | 127-174-30                | 8,962          |
| <b>Total</b>   |                           | <b>90,068</b>  |

**Source:** St. Joseph's Medical Center 2022.

**Notes:** APN = assessor's parcel number.

<sup>1</sup> Only if necessary to meet seismic requirements.

<sup>2</sup> This residence is owned by Port City Operating Company, LLC, and is unoccupied.

Development of the new Central Utility Plant may require removal and relocation of some existing surface parking. In addition to the structures and surface parking to be removed, the MDP identifies removal of an outdoor respite area currently used by hospital employees. This outdoor area is presently located in between technical support buildings and serves multiple purposes, including storage.

The portion of McCloud Avenue between N. California Street and Cemetery Lane currently owned by St. Joseph's Medical Center was abandoned by the City Council in 1978. Existing public and private underground utilities would require relocation to make way for the new Acute Care Hospital Tower. A draft utility relocation plan has been submitted to the City for consideration and is included in the MDP.

## Seismic and Other Safety Retrofits for Buildings and Support Utilities

Senate Bill 1953 requires phased implementation of seismic-related safety upgrades to improve durability of acute care hospital buildings during major earthquakes. Safety enhancements are intended to ensure that such buildings are capable not only of surviving a major earthquake, but also are able to provide on-going services after an earthquake. The project applicant completed some of the required upgrades when the old Main Hospital building was decommissioned as an acute care facility in 2015. Seismic and other safety retrofits are part of an

ongoing implementation plan at the Medical Center. The MDP includes retrofits that are known or anticipated at the time of approval of the project and may be required to be implemented by 2030.

The MDP identifies seismic retrofits and related upgrades that are presently required under Senate Bill 1953, and also provides standards for implementation of retrofits that may be required in the future. The state presently requires completion of seismic retrofits prior to 2030, but deadlines may be extended either on a case-by-case basis or if the Legislature provides flexibility in light of financial challenges imposed on hospitals as a result of the Affordable Care Act and, more recently, the multiyear Covid-19 pandemic. The MDP provides flexibility for completion of seismic retrofits during construction of other phases of the project, or as a separate phase if state deadlines are extended and the expansion project is complete. Seismic retrofits require careful planning and phasing to avoid disruption in patient care. The MDP is intended to accomplish that objective. The MDP contemplates that the new buildings to be constructed in phases 2 and 3 would be operational in sufficient time to allow for patient transfer to these new buildings and thereby minimize the loss of patient beds while seismic retrofits are completed. Seismic retrofits are identified as a separate phase in the MDP to allow for flexibility if State law modifies completion deadlines but are likely to be undertaken about the same time as phase 4. Without new buildings in place, delivery of patient services could be disrupted for two (2) or more years while seismic retrofits are completed.

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Source: Dignity Health, 2022

**FIGURE 2-7**  
Demolition Site Plan

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## Building Retrofits Anticipated Prior to 2030

The fourth (4th) floor of the existing hospital (the “North Wing,” constructed in 1960) is anticipated to require significant retrofits, including the possible complete removal of the fourth (4th) floor to address seismic regulatory requirements set forth under Senate Bill 1953. The North Wing Seismic Retrofit is identified within phase 4 of the Initial Expansion phase but may occur in an alternate phase if the state modifies the deadline. Retrofits to the North Wing are anticipated to include, but not be limited to, interior structural modifications that would comply with applicable building codes, replacement of windows, and adjustments to building fenestrations. Design evaluation would include consideration of compatibility with the first(1st) through third (3rd) floors of the North Wing, which are not anticipated to be replaced during this retrofit phase.

Although the fourth (4th) floor of the North Wing was constructed more than 50 years ago, it has been remodeled since that time and therefore is not anticipated to have historical resource significance under Stockton Municipal Code Section 16.220.105. If the fourth (4th) floor is not retrofitted by the state-mandated deadline, a significant disruption in patient services would result.

## Redundant Support Facilities

To enhance operations during a seismic event, Senate Bill 1953 also requires utility storage tanks that can be activated if normal utility services are interrupted. Two (2) below-grade back-up wastewater storage tanks with approximate capacities of 129,600 gallons and 21,600 gallons, a below-grade water storage tank with approximate capacity of 88,900 gallons, and a diesel fuel underground storage tank with capacity of 32,000 gallons are contemplated for the Initial Expansion phase. At buildout, an additional four (4) below-grade water and wastewater tanks are anticipated to be required prior to 2030 including a 26,250-gallon capacity water storage tank, two (2) below grade wastewater tanks with approximate capacities of 11,250 gallons and 67,500 gallons, and a 16,000-gallon diesel fuel tank. All storage tanks are intended to provide 96-hour storage in the case of an emergency event and are not intended to provide additional capacity for regular operations, unless otherwise allowed by state law. All storage tanks would be installed below-grade, with possible sites identified in Figure 2-8. The project applicant may propose alternative locations that would be evaluated under the administrative procedures of the MDP (see Chapter 8), including an analysis of whether any new environmental impacts require evaluation.

## Future Safety Retrofit Requirements

As building requirements and seismic and other safety standards evolve over time, additional retrofits (whether to achieve seismic protections or for other health/safety reasons) may be necessary and would be included within the scope of the development policies and design standards of the MDP. Safety retrofits may be presented for approval under the administrative procedures set forth in Chapter 8 (of the MDP) and would include, but not be limited to, interior and exterior modifications, replacement of windows, addition of sprinklers as existing buildings are renovated, and adjustments to building fenestrations. The development policies and design standards of the MDP would be applied to future building retrofits and those retrofits would also be subject to approval as “Minor Changes to the Plan” as authorized by Municipal Code Section 16.140.110B and in “substantial conformity” with the MDP if the criteria of Section 8.4.1 of the MDP are met.

## Phase 5 Expansion

After completion of the Initial Expansion phase and as new buildings are occupied, there would be an opportunity for continued expansion of acute care hospital services by up to an additional aggregate total of 150,000 sf, as



well as the parking required to serve the additional planned facilities. This Phase 5 Expansion could occur in a single new building or be distributed across several locations. One option may be to remove approximately 65 to 70 surface level parking spaces located between the new Acute Care Hospital Tower and the new Parking Structure. The EIR considers and evaluates the environmental impacts of each of the Phase 5 Expansion options based on what is known at this time. Future analysis would determine if Phase 5 Expansion requires additional parking, or whether the accompanying parking demand could be accommodated in the new Parking Structure contemplated in the Initial Expansion phase. A requirement for additional parking may require additional environmental review.

### Future Expansion

Due to constraints of available land within the Medical Center campus, it is anticipated that a Future Expansion phase beyond Phase 5 would occur on properties to be determined in the future. The Future Expansion phase is included in the MDP to support the continued growth of the Medical Center, and these off-campus properties may be incorporated through a future administrative process. Because no properties are presently identified for expansion beyond Phase 5 Expansion, any Future Expansion phase would be subject to additional environmental review under CEQA.

## 2.4.3 Project Design Features

The following provides additional project design features including lighting, landscaping, circulation, utilities, and energy conservation/sustainability.

### Lighting

Currently, there are pedestrian, parking lot, and building lights located throughout the developed portions of the Medical Center campus. The proposed project would include additional lighting for new buildings and parking lots for security and safety. Lighting would not be overly bright but would be sufficient to ensure safety as determined by the City's Community Development Director. The heliports would also be lighted to define the structural edge of the landing area and to ensure flight safety during all flight operations.

The MDP identifies the following guidelines for outdoor lighting:

- Free-standing parking lot lighting shall be the same throughout the parking areas. Height to be a maximum of 20 feet and shielded from residential uses.
- Luminance within parking and pedestrian areas shall comply with Stockton Development Code requirements (Section 16.32.070).
- Free standing parking lot lighting on the top deck of the parking structure shall be limited to a maximum height of 16 feet, shall be located away from the edge of the structure, shielded from the helicopter operations and residential uses, and comply with FAA and Caltrans heliport regulations. Light standards near helicopter operations shall be fitted with night-vision goggle compatible obstruction lights.
- Lighting shall be appropriately scaled to the building.
- Buildings shall be lit with a combination of ground mounted up lighting, architecturally integrated down lighting, and building mounted sconce lighting.
- Color of the lighting shall be white and flatter skin tones.
- Lighting color temperatures shall be consistent throughout the project.





Source: Dignity Health, 2022

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## Landscaping

The intent of landscape design for this project is to create user-friendly, functional, intuitive, human-scaled spaces that provide shade, biodiversity, seasonal interest, seating areas, healing spaces, and an overall calming and therapeutic effect that living landscapes can offer.

There are approximately 403 trees within the Medical Center campus, including trees that are protected by the City's Municipal Code as a Heritage Tree or a Street Tree, as well as the on-site trees that are not protected by the City's Municipal Code. Approximately 254 trees have the potential to be impacted by the proposed project. An arborist report was prepared that identified the species and size of each tree as well as the health of the trees and is included in Appendix D.

New landscaping would include new trees, groundcover and shrub plantings, and gardens. A conceptual landscaping plan is included with the MDP and relies upon the following landscaping guidelines as identified in the MDP:

- All plant material shall be California-adapted, long-lived, non-toxic and non-invasive. California native plant species shall be incorporated where appropriate.
- All plant material shall have a very low water use, low water use, or medium water use rating according to the Water Use Classification of Landscape Species rating system.
- Plants shall be spaced with adequate room to grow to their full size without requiring shearing.
- Perennial plants may be used sparingly, in accent plantings at entries and therapeutic garden spaces. There shall be no annual color plantings.
- Mowed lawns shall be limited to small areas for patient/visitor use for therapeutic purposes and shall not exceed 5% of the total landscaped area.
- Street trees on the frontages shall be consistent with City of Stockton streetscape requirements.

## Circulation and Parking

Several new public driveways to access the new Acute Care Hospital Tower building are planned off N. California Street. Two (2) driveways would provide public access to the new main entrance to the Acute Care Hospital Tower building and to the Emergency Department. An additional two (2) driveways would provide access to the new Parking Structure located off E. Cleveland Street. Ambulance access to the campus would continue to be from Cemetery Lane but would be moved farther north, closer to the east elevation of the new Acute Care Hospital Tower. Two (2) new ambulance driveways would be added, providing covered patient drop-off and ambulance parking. On Cemetery Lane, several new delivery truck driveways would be added and/or modified to access the Acute Care Hospital Tower building.

A new sidewalk would be added to improve pedestrian circulation between E. Maple Street and E. Harding Way along N. California Street. The project would also include pedestrian signal enhancements to improve pedestrian safety from off-site leased facilities at the corner of E. Harding and Cemetery Lane. The circulation plan is depicted in Figure 2-9.

The project would be served by fire and emergency access roads around the sides of new and existing building areas. The site includes public streets meeting the general fire department access road requirements on the north (E. Cleveland), south (E. Maple), east (Cemetery Lane), and west (N. California Street).

As described above, the project would also remove some existing surface parking lots and spaces and would introduce a new Parking Structure and two small surface lots. The parking summary is provided in Table 2-4.

**Table 2-4. Parking Summary**

| Location                                       | No. of Parking Spaces |
|--|-----------------------|
| Existing Parking (excluding public ROW)        | 1,354                 |
| <b>Parking to be Removed</b>                   |                       |
| North Lot                                      | 606                   |
| Administration Lot                             | 7                     |
| Administration Overflow Lot                    | 9                     |
| McCloud Avenue                                 | 24                    |
| HCCL (Laboratory) North                        | 6                     |
| HCCL (Laboratory) South                        | 21                    |
| Vendor/Maintenance                             | 7                     |
| <b>Total to be Removed</b>                     | <b>680</b>            |
| <b>New Parking to be Provided</b>              |                       |
| New Parking Structure                          | 1,980                 |
| North Surface Lot                              | 16                    |
| Emergency Department Parking Lot               | 70                    |
| <b>Total New Parking Provided</b>              | <b>2,066</b>          |
| <b>Total Parking (Initial Expansion Phase)</b> | <b>2,740</b>          |

**Source:** St. Joseph's Medical Center 2022.

**Notes:** ROW = right-of-way.

Total parking includes remaining spaces plus new spaces (1,354 - 680 + 2,066 = 2,740).

## Utilities and Storm Drainage

### Storm Drainage and Stormwater Management

The local storm drain infrastructure is owned and maintained by the City. There is an existing graduated 12-inch to 18-inch storm drain line along N. California Street that collects stormwater flows and conveys it south where it combines with an existing 60-inch storm drain main in E. Harding Way. In addition, there is an existing 10-inch to 14-inch storm drain line along Cemetery Lane that also collects stormwater flows and conveys it south to the 60-inch main in E. Harding Way.

The following storm drain service lines currently serve the existing Medical Center campus (see the MDP for the complete list of all storm drain lines):

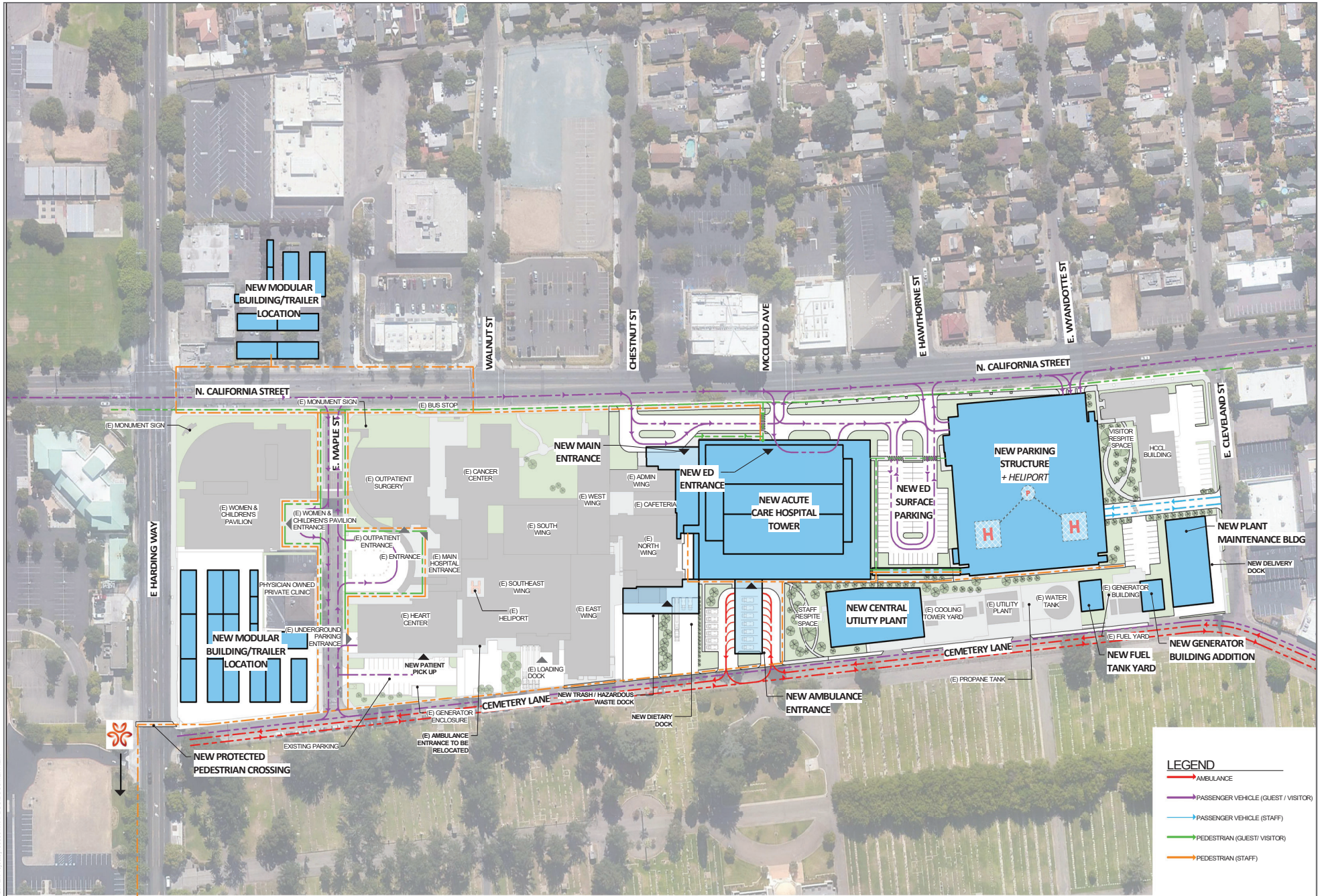
- 10-inch storm drain line, tie-in at N. California Street and Walnut Street
- 10-inch storm drain line, tie-in at N. California Street and E. Wyandotte Street
- 12-inch storm drain line on N. California and McCloud Avenue
- 10-inch storm drain line, tie-in at N. California Street and E. Chestnut Street
- 10-inch storm drain line, tie-in at N. California Street and E. Hawthorne Street
- 12-inch storm drain line, tie-in at N. California Street and Maple Street



- 12-inch storm drain line, tie-in at N. California Street and Cleveland Street
- 10-inch to 14-inch storm drain line, tie-in on Cemetery Lane
- 12-inch storm drain line, tie-in on E. Harding Way and Cemetery Lane
- 12-inch storm drain line, tie-in on E. Harding Way between N. California Street and Cemetery Lane

The abandonment of McCloud Avenue by the City in 1978 and the location of the proposed Acute Care Hospital Tower over what used to be the McCloud right-of-way would require the relocation of existing underground utilities in the McCloud right-of-way. The conceptual utility relocation plan will be included in the MDP, with the final design determined during preparation of improvement plans and approved by the City Engineer.

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Source: Dignity Health, 2022

**FIGURE 2-9**  
Circulation Plan

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## Water and Fire Distribution System

Water service for the Medical Center is currently provided by the California Water Service Company Stockton District (Cal Water). There is an existing 6-inch water main located along Cemetery Lane and a 6-inch water main on N. California Street. Domestic water supply service to the existing hospital is currently provided via a direct tap to the existing water main along Cemetery Lane (via the north side of the East Wing). Chilled water is provided and routed to the existing hospital from an on-site cooling tower. There are existing perimeter fire hydrants located at the corners of E. Harding Way, N. California Street, Cemetery Lane and E. Harding Way; Maple Street and Cemetery Lane; and McCloud Avenue and Cemetery Lane. A fire hydrant is also located approximately 288-feet north of the intersection of E. Maple Street and Cemetery Lane.

The project analyzed and provided fire flow requirements for maximum building square footage (SEC 2021). With the submittal of building designs, the required California Fire Code formula for fire flow will be applied and submitted to the Fire Marshal for approval. If structures are reduced in size from the maximum allowed under the MDP, fire flow requirements will decrease. The following pump sizes and water pressures incorporate the 75% reduction allowed for sprinklered buildings, and represent the fire flow that would be required for fire protection under proposed maximum square footages:

- 1,500 gallons per minute (gpm) and 50 pounds per square inch (psi) for the Acute Care Hospital Tower
- 1,500 gpm and 80 psi for the Parking Structure
- 600 gpm and 40 psi for the Central Utility Plant and Plant Maintenance building
- 600 gpm and 30 psi for the Generator building
- 300 gpm and 50 psi for the existing Medical Center

A Water Supply Assessment has been prepared by the water purveyor, Cal Water, and is included herein by reference and in Appendix H.

The seismic upgrades required by Senate Bill 1953 would require the installation of water and wastewater tanks on the campus, some of which would be installed below-grade. See the discussion of seismic upgrades, above.

The Acute Care Hospital Tower would include building sprinklers, per the California Building Code. All buildings constructed in the Initial Expansion phase, Phase 5 Expansion, and Future Expansion phase would be designed to meet current building and fire code requirements at the time of construction.

## Sanitary Sewer

Wastewater service, including conveyance and treatment for the Medical Center is currently provided by the City. There is an existing graduated 8-inch to 12-inch sewer main along N. California Street that conveys sewer flows from E. Harding Way to E. Wyandotte Street to the north.

The following sewer service lines currently serve the existing Medical Center campus:

- 4-inch sewer force main/pump station with tie-in on N. California Street and E. Maple Street
- 6-inch gravity sewer line with tie-in on N. California Street and Walnut Street
- 6-inch gravity sewer line on McCloud Avenue
- 6-inch gravity sewer line with tie-in on N. California Street and E. Hawthorne Street

- 6-inch gravity sewer line with tie-in on N. California Street and E. Wyandotte Street

A technical study addressing sewer calculations has been prepared by the applicant's civil engineering team and is included herein by reference and in Appendix H. The City also requested an independent peer review of sewer capacity, which also is included herein by reference in Appendix H.

### Off-Campus Improvements

The draft utility relocation plan would require the relocation and or extension of new underground utilities in the City's right-of-way along E. Maple Street, Cemetery Lane, E. Cleveland Street, and N. California Street. For example, the existing underground water, sewer, gas and possibly stormwater drainage utilities in McCloud Avenue would have to be re-located to accommodate the new Acute Care Hospital Tower, with relocation anticipated to be primarily into Cemetery Lane, although some stormwater drainage facilities may be relocated or redirected to N. California Street. Similarly, some facilities in E. Maple Street may have to be upsized or new facilities installed to accommodate the hospital expansion. In addition, the transportation analysis would also require improvements within City rights-of-way at E. Harding and Cemetery Lane (traffic signal and pedestrian crosswalk), N. California Street and Alpine Avenue (phasing signal) and W. Harding Avenue at N. California Street (extension of queuing lane). Street improvements to accommodate new entrances to the Medical Center and parking structure at N. California are also possible and would be addressed in the project's conditions of approval. The project applicant is exploring with the City the possibility of a private utility easement along Cemetery Lane to service the expansion, as well as dry utility (data) easements under E. Harding Way and several locations under N. California Street.

### Sustainability Measures

The proposed project would be required to comply with the current version of Title 24, Part 6, of the California Code of Regulations energy efficiency standards and Part 11, of the California State Building Code "Green Building Standards Code" in effect at the time of construction of the project components as well as all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended. In addition, the proposed project includes the following sustainability goals. The intent is to provide the selected design-builder with these goals and require them to demonstrate the most efficient way to achieve or contribute to progress on as many of these goals as possible.

The following are calendar year 2030 goals that will be measured against calendar year 2020:

- Reduce energy consumption 25% as measured in thousand British thermal units (kBtu)/sf by 2030.
  - Convert interior/exterior lighting with LED technology with dimmable controls improving patient satisfaction scores.
  - Convert surgical lights to LED technology improving physician satisfaction and variability of operating room temperatures.
  - Implement retro-commissioning programs across the system aimed at improving energy use through more effective operations.
  - Replace aging equipment such as chillers, boilers, air handler units, medical gas systems with more efficient equipment.
  - Replace roofs and windows to reduce heat gain.

- Installation of building automation systems and other smart controllers to manage energy consumption and improve building comfort.
- Increase use of renewable energy by 20% by 2030.
  - Implement renewable energy sources including photovoltaic, solar hot water, cogeneration, fuel cells, geothermal, and wind where economically viable through the use of Power Purchase Agreements and internal funding.
  - Pursue and participate in, where economically viable, renewable energy through local energy supplier or third-party firms.
- Reduce greenhouse gas emissions by 40% by 2030.
  - Increase number of electric vehicle charging stations 3× by 2030 according to demand.
  - Convert emergency generators/fuel oil steam boilers to more environmentally friendly fuels.
- Reduce water consumption 25% by 2030.
  - Installation of smart meters for landscape irrigation minimizing overwatering.
  - Rebuild cooling towers to reduce water loss from evaporation and drift.
  - Replace water softeners to reduce blow down cycles.
  - Modernization of cart wash and dish machines improving cleanliness.
  - Installation of sub meters to track end use consumption and pinpoint opportunities to reduce water consumption.
- Design and construct new acute care building 15% below code required energy efficiency.
  - Position new acute care buildings to take advantage of external day lighting.
  - Maintain window/wall ratios to maximize energy efficiency through decreased heat gain by selectively choosing exterior material and window reflectance.
  - Select high efficiency mechanical equipment (low kW/ton) matched to anticipated cooling loads over the highest percentage of operating hours.
  - Utilize waste heat recovery from boiler exhaust to pre heat make up water to deaerator tank, hydronic hot water boilers, and/or domestic hot water boilers.

### 2.4.4 Project Construction/Phasing

Project construction would occur over approximately four (4) major phases (Initial Expansion phase) and a future Phase 5 Expansion. The activities included in these phases are described in Section 2.4.2, Project Site Master Plan. Building of the Initial Expansion is anticipated to last 5-6 years. The start date will be affected by the timing of entitlement approvals, construction seasons and internal scheduling to accommodate ongoing hospital operations. The goal is to complete the Initial Expansion by approximately 2030.

As the project is underway, non-hospital and non-clinical staff would be relocated to modular buildings (some of which may be temporary and some of which may continue after construction is complete), generally on property owned by St. Joseph's Medical Center. In the event additional space is needed, the hospital may locate modular buildings on nearby leased parcels. Additionally, hospital support staff may be relocated to leased commercial space within the community. With the removal of existing parking, temporary parking would be required. Interim parking is contemplated to occur on nearby off-site parcels shown on Figure 2-10 with 24-hour shuttle services for staff and visitors. It is anticipated that there would be a shortage of 615 parking spaces during phase 1 and

1,279 parking spaces during phase 2 from the removal of existing parking. On-site parking shortages during phase 1 and phase 2 would be satisfied by temporary off-site parking lots constructed to meet all local ordinances, including requirements on materials to be used, lighting, striping and other surface markings.

If the project is approved by the City, and component parts are approved by other regulatory agencies (e.g., California Department of Transportation and the Federal Aviation Administration for the heliports, California Department of Health Care Access and Information [HCAI] for the Acute Care Tower), the Initial Expansion phase could be completed within 5-6 years after construction is commenced. All construction equipment would be staged on-site when in-use for that particular phase of construction (i.e., site clearing, grading, trenching for utilities, building erection, etc.). Construction activities would occur Monday through Friday from 6:30 AM to 4:00 PM. It is anticipated that a grading plan would be prepared by the applicant and approved by the City before construction begins. The amount of soil to be exported would be approximately 2,066 cubic yards. Building support would be installed via an auger or drill method and no pile driving would be used. Similarly, a temporary (construction) traffic control plan would be prepared and submitted to the City's Public Works Department Traffic Division and Community Development Department Engineering Division for review and comment before construction begins.

## 2.5 Required Approvals

Based on information currently available to the City, the City has identified the following discretionary approvals/entitlements required by the City for the project:

- Certification of the Environmental Impact Report
- Adoption of the Master Development Plan (for all aspects of the comprehensive application, including, for example, the heliports)
- Adoption by Ordinance of a Development Agreement
- Commission Use Permits, Design Review, Certificate of Appropriateness from the Cultural Heritage Board for any potential historic demolition as necessary, and other permits as may be required
- Administrative approval of parcel mergers, Temporary Use Permits, Building Permits, Demolition Permits, and other administrative actions as may be required
- Parcel Map and Parcel Mergers

Ministerial approvals would include permits for temporary activities (e.g., for construction activities and parking to serve modular structures). The removal of the existing surface parking lots, totaling 680 parking stalls (see Table 4.2.5-1 in the MDP) may be subject to an Administrative Permit within the City's existing requirements for "alteration" of a private parking lot under Municipal Code Section 15.04.250.



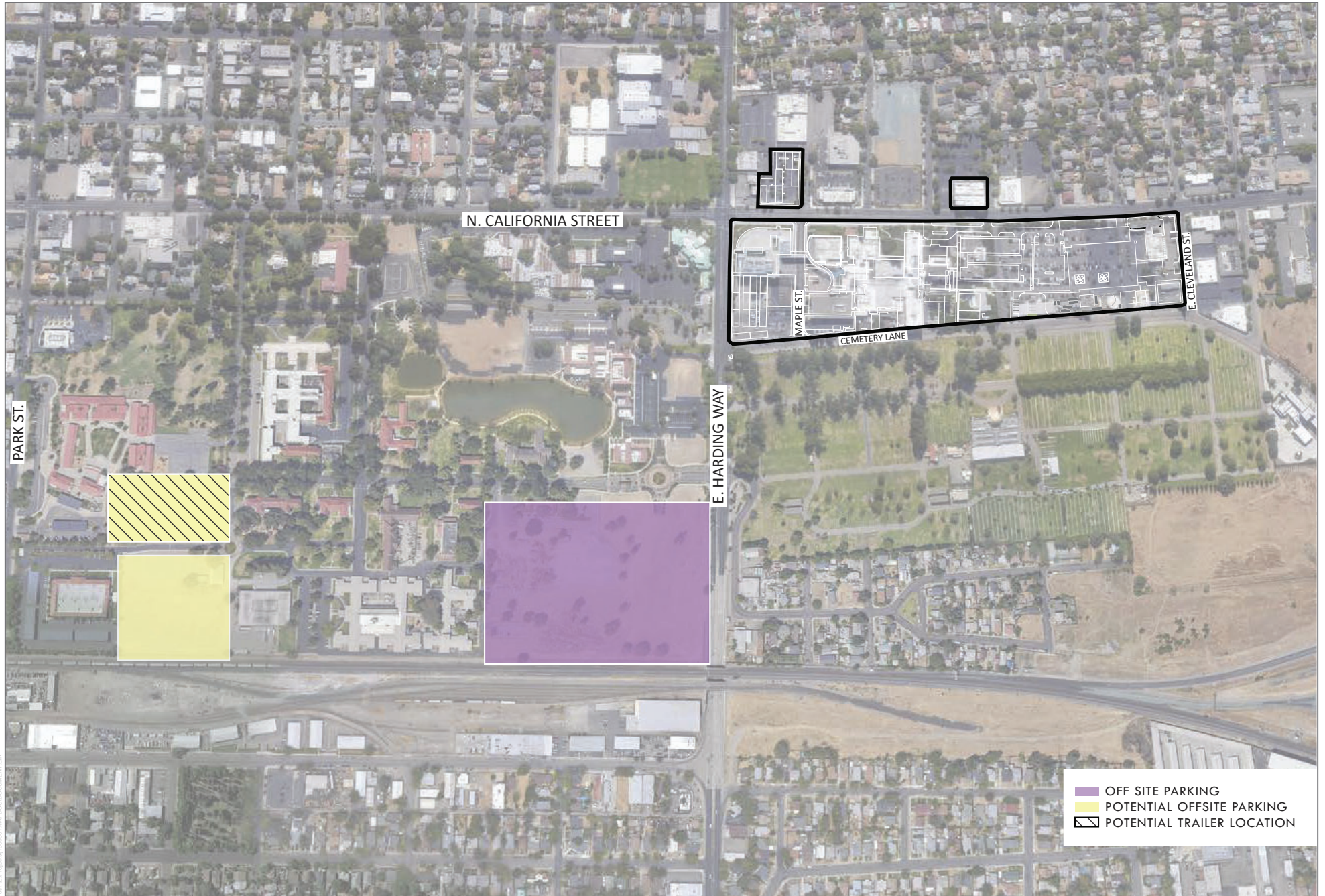


PHOTO: ZEPHYRUS/ISTOCK/SHUTTERSTOCK.COM

Source: Devenny Group Architects Ltd. 2022

**FIGURE 2-10**

**Temporary Off-site Parking**

St. Joseph's Medical Center of Stockton Hospital Expansion Project

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Approvals by responsible and federal regulatory agencies as well as private parties other than the City are listed below:

### Responsible Agencies

- Central Valley Regional Water Quality Control Board
- San Joaquin Valley Air Pollution Control District
- California Department of Transportation
- HCAI (formerly the Office of Statewide Health Planning and Development)

HCAI reviews and issues permits for hospital additions and renovation permits. In essence, HCAI serves as a building department for permit application review for all hospital projects in California. HCAI would review all proposed project components (with the exception of the Plant Maintenance building and the modular structures, which would obtain building permits through the City of Stockton). HCAI would review the Acute Care Hospital Tower building, Generator building, Central Utility Plant, Parking Structure, and internal retrofits and seismic safety improvements to existing buildings and issue building permits for these project components.

### Trustee Agencies

Trustee agencies are designated public agencies with legal jurisdiction over natural resources that are held in trust for the people of California and that would be affected by a project, whether or not the agencies have authority to approve or implement the project (CEQA Guidelines Section 15386). The following agency was identified as a trustee agency with potential jurisdiction over the proposed project:

- California Department of Fish and Wildlife

## 2.6 References

City of Stockton. 2018a. *Envision Stockton 2040 General Plan*. Accessed May 23, 2022.

[http://www.stocktonca.gov/files/Adopted\\_Plan.pdf](http://www.stocktonca.gov/files/Adopted_Plan.pdf)

SEC. 2021. St. Joseph's Medical Center Stockton, Fire Protection Systems Narrative, Sacramento Engineering Consultants. February 2022.

St. Joseph's Medical Center of Stockton. 2022. *St. Joseph's Medical Center of Stockton Hospital Expansion Project Master Development Plan*. Revised April 22, 2022.



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# 3 Land Use and Planning

## 3.1 Introduction

This chapter of the Draft EIR describes existing and planned land uses within and adjacent to the St. Joseph's Medical Center of Stockton Hospital Expansion Project ("proposed project") site, including current land uses, land use designations and zoning, and analyzes the consistency of the proposed project with existing land use plans and policies. This chapter identifies any potential conflicts with applicable plans, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect. In addition, the project includes a Master Development Plan (MDP) which must be consistent with the adopted General Plan and applicable ordinances (Section 16.140.070 of the Stockton Municipal Code). The project also includes a separate parcel map application and would also be subject to any ministerial approval for parcel mergers, Land Use Permits, and possible review by the City of Stockton (City) Cultural Heritage Board for the demolition of structures over 50 years of age.

CEQA Guidelines Section 15125(d) provides that the environmental setting of an EIR must discuss "any inconsistencies between the proposed project and applicable general plans and regional plans. Such regional plans include, but are not limited to, the applicable air quality attainment or maintenance plan or state Implementation Plan, area-wide waste treatment and water quality control plans, regional transportation plans, regional housing allocation plans...." Potential inconsistencies between the proposed project and planning documents specific to a particular environmental issue area, such as air quality or greenhouse gases, are addressed in the applicable section of this EIR. The reader is referred to the various technical sections in Chapter 4 for a discussion of any potential physical environmental effects and potential incompatibilities with applicable planning documents, depending on the type of environmental resource implicated by particular planning policies.

As noted in Chapter 2, Project Description, the layout and design of project development would be guided by the proposed MDP and associated Site Master Plan, which includes phases 1-4 ("Initial Expansion" phase) improvements, including an Acute Care Hospital Tower, multistory Parking Structure, new Central Utility Plant, Plant Maintenance building, expansion of the existing Generator building, and other support facilities within the St. Joseph's Medical Center of Stockton ("Medical Center") campus boundaries (see Figure 2-5 in Chapter 2, Project Description). During and after project construction, non-hospital and non-clinical staff would be relocated to modular buildings on property owned or leased by St. Joseph's. Phase 5 Expansion improvements are not shown on the site plan but may include the continued expansion of acute care hospital services and additional parking. The exact locations of these facilities are not yet determined but are expected to be sited within the existing Medical Center campus.

While an increase in population or new employees resulting from new development does not necessarily cause direct adverse physical environmental effects, indirect physical environmental effects such as increased vehicle trips and associated increases in air pollutant emissions and noise could occur. The information in this chapter is used as a basis for the analysis of project impacts in the technical sections contained in Chapter 4 of this Draft EIR.

Comments received in response to the Notice of Preparation (NOP) included a concern regarding the proposed parking garage, which is anticipated to be up to 115 feet in height. The comment raised concern that the Parking Structure would be out of scale with the existing neighborhood and contends that there are no parking garages in the City that are of a similar scale. Section 3.3, Land Use Consistency Analysis, analyzes the project's compliance

with the City's Development Code and General Plan land use policies, which includes a review of proposed building heights and floor area ratio. Section 4.2, Aesthetics, also contains a discussion of the project's consistency with regulations that address scenic quality and potential conflicts with zoning.

Information for this chapter was primarily obtained from the Envision Stockton 2040 General Plan (City of Stockton 2018a) and its Environmental Impact Report (EIR) (City of Stockton 2018b; SCH No. 2017052062) and the City's Development Code (Title 16 of the City's Municipal Code).

## 3.2 Existing Setting

The project site includes the approximately 18.7-acre Medical Center campus and several off-campus parcels. The project site is located in the central portion of the City, approximately one (1) mile north of the City's downtown historic core. The project site is generally flat, with elevations ranging from approximately 15 to 20 feet above mean sea level from the northeast corner to the southwest corner of the project site. The Medical Center campus, which includes the project site, is generally bounded by E. Cleveland Street to the north, E. Harding Way to the south, N. California Street to the west, and Cemetery Lane to the east. McCloud Avenue and E. Maple Street bisect the campus. The San Joaquin Catholic Cemetery borders the site to the east. The site is fully developed and occupied by buildings and uses associated with the Medical Center, surface parking lots, and includes an existing residence (vacant).

The MDP includes two (2) primary phases: Initial Expansion phase (Phases 1-4) and Phase 5 Expansion. Development proposed within these phases is focused within the northern portion of the campus and includes 19 parcels but not all are proposed for development. This portion of the campus contains the Main Wing and McCloud Building south of McCloud Avenue. North of McCloud Avenue there are surface parking lots, Plant Maintenance facilities (engineering shop, Cooling Tower Yard and Plant Maintenance building), Clinical Laboratory building, Generator building, a classroom building, an unoccupied single-family residence, and small storage buildings). An outdoor respite area currently used by hospital employees is located near the Main Wing and the McCloud Building.

Off-campus parcels are also included in the MDP and are slated for short-term surface parking for hospital staff during construction, construction equipment storage, and for modular trailers to house various non-clinical staff during and after construction.

### City of Stockton General Plan Land Use Designations and Zoning

Land use and zoning designations are determined by the City's General Plan and Municipal Code. The project does not propose any changes to the zoning or land use designation on the project site. The City's General Plan designates parcels on the project site for Administrative Professional and Commercial. Project site parcels east of N. California Street are primarily designated as Administrative Professional by the General Plan; this land use designation is intended to allow for business, medical, and professional offices, including residential, public/quasi-public, and other similar uses (City of Stockton 2018a). The General Plan notes that this designation is appropriate on the borders of residential areas. Several adjacent parcels north of E. Harding Way and south of E. Maple Street are designated as Commercial under the General Plan; this land use designation is intended to allow for a variety of retail, commercial service, recreational, business, medical, professional office, residential, public/quasi-public uses, and other similar uses.

The project site is zoned for Commercial, Office (CO) and Commercial, General (CG) (see Figure 2-4 in Chapter 2, Project Description). The Medical Center currently operates under the “Medical Services” use definition in the City’s Municipal Code, which is defined as uses that provide personal health services by physicians, dentists, nurses, and other health and professional personnel, as well as medical testing and analysis services and care facilities. All proposed permanent uses under the project would fall within this definition (City of Stockton 2022).

### Off-Campus Parcels: General Plan Land Use Designations and Zoning

As described in Section 2.2 of the Project Description, the project includes 11 off-campus parcels west of N. California Street. Eight of these parcels are designated as Medium Density Residential by the General Plan. This land use designation is intended to allow for a variety of residential uses, neighborhood-serving retail, commercial service, and mixed uses. Accordingly, these parcels are zoned Residential, Medium (RM). The other three parcels are designated as Administrative Professional by the General Plan and are zoned CO.

### Surrounding Land Uses

The surrounding area is developed with a mix of uses. To the north and west are residential uses zoned Residential, Low Density Residential (RL) to the north and RM to the west; commercial uses zoned Commercial, Office Commercial (CO) are also located to the west and Commercial, General (CG) Commercial uses to the south. The San Joaquin Catholic Cemetery borders the site to the east, and County and City facilities, which include County medical clinics, a County behavioral health center, and a City fire station, border the site to the south; these properties are zoned for Public Facilities (PF).

## 3.3 Regulatory Setting

### Federal Regulations

#### Federal Aviation Administration

The Federal Aviation Administration (FAA) regulates engineering, design, and construction of new airports and heliports. The project applicant would be required to notify the FAA pursuant to Federal Regulation Title 14 Part 157, Notice of Construction, Alteration, Activation and Deactivation if any adjustments or additions to heliports are proposed. This regulation establishes standards and notification requirements for projects proposing to construct, alter, or deactivate a civil or joint-use (civil/military) airport. This regulation also addresses proposals that alter the status or use of such an airport.

This notification enables the FAA to evaluate effects of the project on the safe and efficient use of airspace by aircraft and the safety of persons and property on the ground. Through this notification, the FAA evaluates the following: existing or proposed traffic patterns of neighboring airports; effects the project would have on the existing airspace structure and projected programs of the FAA; and the effects that existing or proposed objects (on file with the FAA) within the affected area would have on the project. Notification, pursuant to this federal regulation, allows the FAA to identify potential aeronautical hazards in advance, with the intention of preventing or minimizing the adverse impacts to the safe and efficient use of navigable airspace (FAA 2022).

To comply with this regulation, the project applicant is required to submit a form of notification to the FAA 90 days prior to construction of any heliport. This submittal would include FAA Form 7480-1, which would include a description of the proposed landing area, airports, heliports, and obstructions within the project vicinity, list of

schools, churches, and residential communities within the project vicinity, and waste disposal sites near the proposed landing area. The FAA also requires that a city map, heliport layout plan, and landing area sketch be submitted for review and approval. The project applicant would be required to obtain a letter of no objection from the FAA for the heliport.

## State Regulations

### California Department of Health Care Access and Information

The California Department of Health Care Access and Information (HCAI), previously known as the Office of Statewide Health Planning and Development, has approval authority over hospital building design and construction (including fire safety requirements). HCAI is designated as the “enforcing agency” for specified health facilities and has jurisdiction over plan checking and inspection of the design and details of the architectural, structural, mechanical, plumbing, electrical, fire, and panic safety systems. The scope of authority of HCAI includes general acute care hospital buildings, as well as central plant buildings and non-building structures that provide utility service to buildings under HCAI jurisdiction. A non-hospital building may also fall under HCAI jurisdiction if the building contains elements required for an acute care hospital. Under the Initial Expansion phase, HCAI would review all proposed project components with the exception of the Plant Maintenance building and temporary trailers or modular structures.

Division 107 of the California Health and Safety Code (HSC) states that HCAI requirements may take precedence over proposed development standards and/or design guidelines proposed by the MDP. The HCAI is responsible for approving final building design and construction of new acute care hospital buildings, as well as central plant buildings and non-building structures that provide utility service to buildings under HCAI jurisdiction proposed under the MDP. Specifically, section 129860(b) of Article 1 of the HSC states that local jurisdictions are preempted from the enforcement of building standards published in the California Building Code relating to the regulation of hospital buildings. The HCAI’s role includes plan checking and inspection of the design and details of the architectural, structural, mechanical, plumbing, electrical, fire safety systems, and observation of construction; HCAI shall assume responsibility of these actions pursuant to Division 107 of the HSC.

### California Department of Transportation Heliport Permit

California Department of Transportation Office of Airports is responsible for heliport permitting and inspection, and other matters related to heliports and aviation in the state. This agency reviews new heliport permit applications, including plan check/approval, site visits, final permit inspections, and permit issuance (Caltrans 2022).

Pursuant to Public Utilities Code Section 21664 and Section 3534 of Title 21 of the California Code of Regulations, the construction, establishment, or expansion of a heliport is required to apply for the appropriate permit from the California Department of Transportation. The permit application is required to include, among other requirements, a map depicting the heliport and location of schools, places of public gathering and residential areas within 1,000 feet of the proposed heliport; documentation of action by the County’s Airport Land Use Commission; documentation of CEQA compliance; and documentation of FAA approval.

It is possible that the project could be exempt from State Heliport Permit requirements if it is determined to be an emergency medical service (EMS) landing site. To be considered an EMS landing site, the project site would have to be used for landing and taking off of EMS helicopters located at or near as practical to the Medical Center. To obtain this exemption, the site would also: have to be designated an EMS landing site by an officer authorized by a public safety agency as defined by Public Utilities Code Section 21662.1; be used over a 12-month period, for no

more than an average of six (6) landings per month with onboard patients (except to allow for adequate medical response to a mass casualty event) and not be marked as a permitted heliport as described in California Code of Regulations, Title 21, Section 3554; and only be used for emergency medical purposes.

## Local Regulations

### City of Stockton Envision 2040 General Plan

Adopted in December 2018, the City's 2040 General Plan provides a comprehensive plan for the growth and development of the City. The General Plan is built around a series of goals, policies, and actions that describe the community's vision for its future. The General Plan promotes topics of particular concern throughout the document, including Downtown, Public Health, Environmental Justice, Air Quality, and Climate Change. The plan is comprised of four (4) separate Elements: Land Use, Transportation, Safety, and Community Health. Goals and policies applicable to the proposed project are described below.

#### Land Use

The Land Use chapter encourages land use planning efforts to enhance and build upon neighborhood assets, address current challenges, and generally improve the quality of life in the City. The proposed project is located on lands designated by the General Plan as Administrative Professional and Commercial; these land use designations and associated goals and policies are summarized below (City of Stockton 2022):

**Administrative Professional:** This designation allows for business, medical, and professional offices; residential uses; public and quasi-public uses; and other similar and compatible uses. This designation also allows ancillary retail uses that provide office workers and residents in the immediate area with convenient access to daily services and necessities near their work, provided those retail and service uses can operate compatibly with surrounding uses. This designation is appropriate on the borders of residential areas.

**Commercial:** This designation allows for a wide variety of retail, service, and commercial recreational uses; business, medical, and professional offices; residential uses; public and quasi-public uses; and other similar and compatible uses. Community or regional commercial centers as well as freestanding commercial establishments are permitted. In addition, limited industrial uses are allowed, provided that they are indoors and compatible with surrounding uses.

The following goals and policies of the Land Use Element of the General Plan are applicable to the proposed project.

**Goal LU-3. Authentic Neighborhoods.** Protect and preserve the authentic quality of Stockton's neighborhoods and historic districts.

**Policy LU-3.1.** Ensure that exterior remodels and the siting, scale, and design of new development are compatible with surrounding and adjacent buildings, public spaces, and cultural and historic resources.

**Policy LU-3.2.** Retain narrower roadways and reallocate right-of-way space to preserve street trees and mature landscaping and enhance the pedestrian and bicycle network within and adjacent to residential neighborhoods.



Policy LU-3.3. Ensure that Stockton youth and adults have access to the services and resources they need to enhance their vocational and professional skills for job readiness and retention.

Goal LU-4. High-Quality Jobs. Attract and retain companies that offer high-quality jobs and wages that are competitive with the region and state.

Policy LU-4.1. Encourage large-scale development proposals in appropriate locations that include significant numbers of higher-wage jobs and local revenue generation. Such development may utilize the Economic and Education Enterprise land use designation if the proposal meets all of the criteria listed under the definition of the designation.

Policy LU-4.2. Attract employment- and tax-generating businesses that support the economic diversity of the City.

Goal LU-6. Effective Planning. Provide for orderly, well-planned, and balanced development.

Policy LU-6.1. Carefully plan for future development and proactively mitigate potential impacts.

Policy LU-6.2. Prioritize development of vacant, underutilized, and blighted infill areas.

Policy LU-6.3. Ensure that all neighborhoods have access to well-maintained public facilities and utilities that meet community service needs.

Policy LU-6.4. Ensure that land use decision balance travel origins and destination in as close proximity as possible, and reduce vehicle miles traveled (VMT).

Policy LU-6.6. Coordinate land use planning efforts among City departments and with regional agencies.

### Transportation

The Transportation Element is intended to strengthen physical transportation connections within the City and greater region, including road, bicycle, and trail networks. The following goals and policies are applicable to the proposed project.

Goal TR-2. Active Community. Offer active transportation opportunities for the entire community.

Policy TR-2.2. Connect housing and employment development in areas with good transit access through open and inclusive processes where appropriate.

### Community Health

The Community Health chapter is focused on promoting personal health and enhancing the overall health and livability for the City. The following goals and policies are applicable to the proposed project.

Goal CH-2. Restored Communities. Restore disadvantaged communities to help them become more vibrant and cohesive neighborhoods with high-quality affordable housing, a range of employment options, enhanced social and health services, and active public spaces.

Policy CH-2.2. Stimulate investment through partnerships with private property owners, neighborhood groups, health and housing advocates, nongovernmental organizations, and other community supporters.

Goal CH-3. Skilled Workforce. Expand opportunities for local enterprise, entrepreneurship, and gainful employment.

Policy LU-3.3. Ensure that Stockton youth and adults have access to the services and resources they need to enhance their vocational and professional skills for job readiness and retention.

## Stockton Municipal Code

The Stockton Municipal Code contains all ordinances for the City, identifies land use categories, provides site development regulations, and other general provisions to ensure consistency between the General Plan and proposed development projects.

### Title 16. Development Code

Title 16 of the Stockton Municipal Code is the City's primary tool to regulate physical development within City boundaries. The Development Code classifies and regulates allowed land uses and physical development within the city. According to Section 16.04.020 of the Municipal Code, the purpose of the Development Code is to:

- Provide standards for orderly growth and development of the city;
- Implement the land uses of the General Plan;
- Maintain and protect the value of property;
- Conserve and protect the natural resources of the city, including its surrounding agricultural lands;
- Protect the character and social and economic stability of residential, commercial, and industrial areas;
- Assist in maintaining a high quality of life without causing unduly high public or private costs for development or unduly restricting private enterprise, initiative, or innovation in design; and
- Provide regulations for the subdivision of land in compliance with the Subdivision Map.

### Division 2. Zoning Districts, Allowable Land Uses, and Zone-Specific Standards

This section of the Development Code establishes zoning districts within the City that regulate land use in accordance with the General Plan (see Figure 2-4 in Chapter 2, Project Description). Division 2 establishes a Zoning Map which is used to specify allowable uses on a parcel-by-parcel level. This section also outlines the City's permit requirements for land uses and defines physical development standards for each of the City's zoning districts.

#### Zoning Map

The Zoning Map, which is established in Division 2 of the Development Code, identifies zoning districts within the City at the parcel level. As mentioned above, parcels on the project site have various zoning designations including CO, and CG; these zoning districts are further described below:

**Commercial, Office (CO):** This district is intended to serve as a transitional area between residential and general commercial uses. The primary uses in this district include offices, incidental retail and/or residential in conjunction with an office, and other compatible uses. The CO zoning district is consistent with the administrative-professional land use designation of the General Plan.

**Commercial, General (CG):** This district is applied to areas for a variety of general commercial uses, including retail, personal and business services; commercial recreational uses; and a mix of office, commercial, and/or residential uses. The CG zoning district is consistent with the commercial land use designation of the General Plan.

### Division 3. Site Planning and General Development Regulations

This Division of the Development Code provides general performance, development, and use standards for proposed projects and existing uses within the City. The proposed project would be required to comply with several regulations in Division 3, including but not limited to the following topics: fences, hedges and walls (Chapter 16.48); landscaping (Chapter 16.56); noise (Chapter 16.60), parking (16.64); and signage (Chapter 16.76). This section of the Development Code provides standards for orderly growth and development to preserve and enhance the aesthetic quality of the City.

### Division 5. Land Use/Development Procedures

This section of the Development Code establishes procedures for discretionary and nondiscretionary review of various land use and development permit applications. The proposed project would be required to adhere to procedures and permit application processes outlined in Division 5, including but not limited to the following topics: design review (Chapter 16.120); MDPs (Chapter 16.140); site plan review (Chapter 16.152); and use permits (Chapter 16.168). This section of the Development Code implements regulations described above in Divisions 1 and 3 of the related to land uses, development standards, and site planning regulations.

## 3.4 Land Use Consistency Analysis

As discussed above, the project site is developed with existing Medical Center buildings, accessory structures, one single-family residence (vacant), and surface parking lots. There is residential development to the north and west of the project site, but connections between these areas are not provided through the project site. Therefore, development of the site would not physically divide an established community. See the Initial Study Checklist included in Appendix B.

This land use consistency evaluation reviews the proposed project for consistency with applicable goals and policies contained in the Stockton 2040 General Plan as well as the standards and regulations prescribed in the City's Development Code. In interpreting the 2040 General Plan provisions, the evaluation is guided by legal principles developed in case law interpreting the Planning and Zoning Law (Gov. Code, § 65000 et seq.). Recognizing that the language found in general plan goals and policies is sometimes susceptible to varying interpretations, these legal principles provide that (i) the ultimate meaning of the operative language is to be determined by the elected City Council or a lower tier decision-making body such as a Planning Commission, as opposed to city staff and EIR consultants, applicants, or members of the public; and (ii) the decision-making body's interpretations of such policies will prevail if they are "reasonable," even though other reasonable interpretations are also possible (See *No Oil, Inc. v. City of Los Angeles* (1987) 196 Cal.App.3d 223, 245-246, 249). Courts also have recognized that, because general plans often contain numerous policies adopted to effect differing or competing legislative goals, a development project may be "consistent" with a general plan, taken as a whole, even though the project appears to be inconsistent or arguably inconsistent with some specific policies within a given general plan (*Sequoia Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 719). Furthermore, courts strive to "reconcile" or "harmonize" seemingly disparate general plan policies to the extent reasonably possible (*No Oil, supra*, 196 Cal.App.3d at p. 244). The ultimate determination of General Plan consistency for a proposed project often turns on whether the project is consistent with policies that are fundamental, mandatory, and specific.

*(Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd. of Supervisors (1998) 62 Cal.App.4th 1332, 1341-1342.)* Similar principles apply to other local enactments such as a Zoning or Development Code, “[A]n agency’s view of the meaning and scope of its own ordinance is entitled to great weight unless it is clearly erroneous or unauthorized.” *(Friends of Davis v. City of Davis (2000) 83 Cal.App.4th 1004, 1015.)*

Physical environmental impacts resulting from development of the project site are discussed in the applicable technical sections in Chapter 4 of this Draft EIR. The discussion in this chapter differs from the impact discussions in that only general land use plan or policy consistency issues are discussed, as opposed to a discussion of the physical impacts on the environment that could occur with implementation of the proposed project. This discussion complies with Section 15125(d) of the CEQA Guidelines, which requires EIRs to discuss potential conflicts with local or regional plans as part of the environmental setting. Therefore, the following discussion analyzes consistency with the Stockton 2040 General Plan and the City’s Development Code.

This consistency analysis provides the reader with a general overview of whether the project is in harmony with the overall intent of the City’s General Plan goals and policies. As noted above, it is within the City Council’s purview to ultimately decide if the proposed project is consistent or inconsistent with applicable City goals or policies. The discussions in this Draft EIR on the subject of General Plan consistency represent the best attempt of City staff to advise the City Council of its opinions as to whether the proposed project is consistent with identified goals and policies of the City’s General Plan. Based on the evaluations contained in this Draft EIR, including the following discussion, including Table 3-1, the proposed project is generally consistent with the City’s 2040 General Plan and Development Code. Should the City Council choose to approve the proposed project, the Council can rely on the analysis below, including Table 3-1, as support for the conclusion that the proposed project is consistent with the General Plan and Development Code. Absent any indication to the contrary, certification of the Final EIR will be indicative of agreement with the conclusions in the table.

### 3.4.1 Consistency with the Stockton Development Code

As discussed previously, the project site contains parcels that are zoned CO and CG. The Medical Center operates under the “Medical Services” land use designation provided in the Development Code. All future permanent uses under the project would continue to fall under this use. The Medical Services land use designation is an allowed use in both the CO and CG zones under the Development Code. The project site includes eight (8) off-campus parcels which are zoned RM and three (3) off-campus parcels zoned CO. These parcels are not currently proposed for development with Medical Service uses; rather, these parcels would be used for the relocation of non-hospital and non-clinical staff into modular buildings during and after construction as well as for temporary parking, storage of construction equipment, and parking adjacent to modular structures for the time needed to serve those structures. These uses would be allowed through the City’s approval of Temporary Activity Permits, in accordance with Section 16.164 of the Development Code.

Division 5 of the Development Code outlines the purpose, review authority, and processing requirements for MDPs. According to the Chapter 16.140 of the Development Code, the intent of a MDP is to provide flexibility in the planning review process to minimize review of subsequent approvals. Consistent with Chapter 16.140, the MDP would become the primary entitlement to implement long-term development of the Medical Center. Within the MDP framework, the following permits would be considered, as incorporated with the MDP approval: Commission and Administrative Use Permits, Demolition Permits, Temporary Use Permits, Deviations from the Municipal Code, Historic Demolition, and other potential discretionary and ministerial actions. Approval under the primary entitlement (MDP approval), would be consistent with the intent of Chapter 16.140 of the City’s Development Code. After approval of the MDP, the project would still be responsible for obtaining approval of the

parcel map, parcel mergers, building permits, certificate of occupancy issuance, and adherence to provisions under the project's Development Agreement between the applicant and the City.

The MDP is prepared in accordance with Chapter 16.140.050 of the Development Code, which specifies the preparation and content a MDP must have: proposed land uses, infrastructure, development standards, implementation measures, and discussion of its relationship to the General Plan. The MDP contains this information and therefore conforms with the intent of MDPs, per this chapter of the Development Code.

The MDP is also subject to review and approval by the City and would require specific findings pursuant to Chapter 16.140.080 of the Development Code. In particular, in approving the MDP, the City would need to make a finding that that the MDP is consistent with objectives, policies, and general land uses contained in its General Plan. Section 16.140.080(C) of the Development Code states that in approving an MDP, and its proposed development standards, the City must determine that the standards protect the public convenience, health, safety, and general welfare within the City.

As mentioned above, Table 3-1 provides an evaluation of the project's consistency with the goals and policies contained in the City's 2040 General Plan. The MDP includes its own development standards for the project that regulate building criteria such as setbacks, height, site coverage, floor area ratio, and parking. The MDP notes where existing and/or proposed standards deviate from the City's underlying zoning standards. Pursuant to Sections 16.140.010(A) and 16.140.070(A) of the City's Development Code, the proposed MDP Development Standards and Design Guidelines (Chapter 6 of the MDP) that differ from the City's existing development standards can vary from otherwise applicable standards. Specifically, Section 16.140.010(A) states that the intent of a MDP is to provide flexibility in planning and land use requirements; Section 16.140.070(A) requires that provisions, regulations, and standards governing development in the MDP that differ from those contained in the Development Code, must be stated clearly in the MDP. Considered together, these two (2) provisions suggest that an MDP may depart from normally applicable standards otherwise stated in the Development Code. Section 6.3 of the MDP describes existing development standards for the underlying zoning districts, existing conditions, and the project's proposed MDP standards. The MDP also states where existing and/or proposed standards deviate from the underlying zoning standards. Because an MDP is intended to allow for flexibility in land use requirements and development standards, and Section 6.3 of the MDP clearly states where proposed standards deviate from existing development standards, the MDP may depart from normally applicable City development standards.

The proposed MDP development standards would allow medical care buildings to be built to a maximum height of 115 feet, parking structures to a height of 115 feet (plus the heliport and elevator extension), and campus and infrastructure support buildings to a maximum height of 75 feet. Currently, the City limits building heights to 45 feet for parcels zoned for Commercial, Office or Commercial, General. Under the City's Development Code, exceptions are made for public and private institutional uses, including hospitals, which may be built to a maximum of 75 feet.

The project also proposes design deviations from the City's Development Code related to parking, signage, and landscaping. These deviations, which are fully described in Table 6.9-1 of the MDP, propose a parking requirement of one (1) space per 2,000 square feet of building space (the Development Code requires one (1) space per 2,000 square feet for buildings over 100,00 square feet), a total of four (4) skyline signs (where one (1) would normally be allowed, per the Development Code), one (1) monument sign per vehicle entry (where one (1) would normally be allowed per parcel under the Development Code), and no landscaping requirements at 0-foot setback locations (where 20 feet of landscaping would be required per the Development Code). As described above, the project is dependent on approval of the MDP, which would then take precedence over the City's development standards. Therefore, although the City's zoning standards limit hospital building heights and other requirements related to

parking, signage, and landscaping, the proposed project, if approved would be subject to MDP development standards, as outlined above.

Furthermore, the MDP allows for future Administrative Interpretations of its proposed Development Standards and Design Guidelines. Section 16.140.110(C) of the Development Code provides that “[t]he Director shall have the authority to interpret the precise language of the master development plan to determine if a proposed use, while not specifically listed as an allowable use, would be consistent with and share the same or similar characteristics of an allowed use identified in the adopted master development plan[.]” Consistent with this provision, administrative Interpretations under the MDP would allow City staff to make judgments that apply to specific and/or unusual circumstances that could occur during future development under the MDP. Interpretations are generally expected to be made where requirements and guidelines of the MDP may appear to provide conflicting guidance or appear to be in conflict with the requirements of other agencies. In these instances, administrative Interpretations would be made by City staff that are intended to ensure future development is consistent with the overall intent including goals and policies of the City’s General Plan land uses; in doing so, these interpretations would be made to promote and protect the health, safety, and general welfare of the City.

Section 16.140.060(C) requires the City and the Medical Center to enter into a Development Agreement in accordance with Chapter 16.128, which establishes the procedures and requirements for the review, consideration, and approval of development agreements. The project’s Development Agreement would establish required infrastructure improvements, timing, and methods for financing improvements, and other performance obligations between the St. Joseph’s and the City. The MDP and Development Agreement also identify how the project applicant would meet the Community Amenity requirement under Chapter 16.140.070, which states that at least one amenity of a permanent nature (i.e., recreation facility, community meeting hall, parks, play fields, etc.) shall be provided for in an MDP. As explained in the MDP, significant economic benefits would accrue from the planned expansion, both short term (i.e., during construction) and long term (i.e., as the Medical Center operates through expanded facilities). The applicant also established to the City’s satisfaction the ongoing, multi-year community benefit contributions by the applicant, which are substantial. The City acknowledged that the Medical Center expansion would result in a net contribution to the City, as opposed to imposing additional burdens on the City budget or City resources. Therefore, the Medical Center expansion was determined to be an amenity of a permanent nature sufficient to satisfy the City’s Community Amenity requirement.

Table 3-1 provides an evaluation of the project’s consistency with the City’s 2040 General Plan. Please see the technical sections in Chapter 4 for a discussion of consistency with plans and policies applicable to that issue area (e.g., see Section 4.1, Air Quality for a discussion of consistency with applicable local, regional, and state air plans).



**Table 3-1 Consistency with Applicable 2040 General Plan Goals and Policies**

| Envision Stockton 2040 General Plan  |   |
|--|---|
| Land Use Chapter   |   |
| <p><b>Goal LU-3.</b> Authentic Neighborhoods. Protect and preserve the authentic quality of Stockton’s neighborhoods and historic districts.</p>   | <p>Consistent. See Policies LU-3.1 and LU-3.2 below.</p>  |
| <p><b>Policy LU-3.1.</b> Ensure that exterior remodels and the siting, scale, and design of new development are compatible with surrounding and adjacent buildings, public spaces, and cultural and historic resources.</p>              | <p>Consistent. As described above in Section 3.2, HCAI has jurisdiction over many design elements of the project. Buildings not subject to HCAI approval are subject to design review by the City of Stockton. The applicant anticipates receiving approval for the demolition of several identified buildings as part of the approval of the MDP. Design Review of new construction will be coincident with the issuance of RFP(s) for new construction and prior to the issuance of building permits. These standards and guidelines apply to many design and site elements including, but not limited to, the massing, height, footprint, form, lighting, materials, and landscaping. To facilitate staff and patients access throughout the Medical Center, the MDP’s Design Guidelines emphasizes wayfinding. In addition, design and landscaping shall consist of California-adaptive or native plants. The MDP’s Development Standards and Design Guidelines would be reviewed by the City in conjunction with procedures for design review listed in Chapter 16.120 of its Development Code.</p>  |
| <p><b>Policy LU-3.2.</b> Retain narrower roadways and reallocate right-of-way space to preserve street trees and mature landscaping and enhance the pedestrian and bicycle network within and adjacent to residential neighborhoods.</p> | <p>Consistent. The MDP does not specify the removal of street trees present along roadways adjacent to the site or the removal of public roadways. The applicant anticipates that if any street trees may need to be removed to allow for future construction under the MDP, such tree removal would be approved as part of the approval of the MDP. Similarly, the applicant anticipates that the planting of new trees along N. California Street and E. Cleveland Street, as well as within the project site, would be approved as part of the approval of the MDP. In each instance, the approval of the MDP would be interpreted as compliance with Section 16.162 of the City’s Municipal Code. If any Heritage trees may need to be removed to allow for future construction under the MDP, removal of Heritage trees would be subject to the City’s Heritage tree removal permit process pursuant to Section 16.130 of the City’s Municipal Code. The project includes a landscaping plan which include trees and other shrub plantings within the project site. The project also includes the installation of additional bicycle parking and a new protected pedestrian crossing across E. Harding Way that would improve the City’s bicycle and pedestrian network. The project provides a new sidewalk between E. Maple Street and E. Harding Way (MDP p. 4-19). The City of Stockton Bicycle Master Plan incorporates N. California Street as a</p> |

**Table 3-1 Consistency with Applicable 2040 General Plan Goals and Policies**

| Envision Stockton 2040 General Plan   |   |
|---|---|
|   | roadway that will implement additional bike lanes. The project’s Site Master Plan incorporates the design requirements per the Bicycle Master Plan.   |
| <b>Goal LU-4.</b> High-Quality Jobs. Attract and retain companies that offer high-quality jobs and wages that are competitive with the region and state.  | Consistent. See Policies LU-4.1 and LU-4.2 below.   |
| <b>Policy LU-4.1.</b> Encourage large-scale development proposals in appropriate locations that include significant numbers of higher-wage jobs and local revenue generation. Such development may utilize the Economic and Education Enterprise land use designation if the proposal meets all of the criteria listed under the definition of the designation. | Consistent. The Medical Center currently provides significant employment opportunities to the Stockton community. Expansion of the Medical Center under the MDP would generate additional employment and higher-wage healthcare and medical jobs in the City. The MDP states an objective to provide additional employment for all educational levels to the City. The project also involves the expansion of the Graduate Medical Education program that would attract aspiring and practicing physicians, other medical professionals, and technology professionals to the City. At full project build-out, the Medical Center would include approximately 3,230 employees, including doctors, nurses, and administrative staff; this represents an increase of 365 people from the current total of 2,865. |
| <b>Policy LU-4.2.</b> Attract employment- and tax-generating businesses that support the economic diversity of the City.  | Consistent. The project would provide a broad range of healthcare services to the City and further establish the Medical Center as a regional provider for health care. The MDP outlines future development that would modernize the Medical Center which could subsequently attract new medical-related businesses and employment opportunities to the City that would support the economic diversity of the City.   |
| <b>Goal LU-5.</b> Protected Resources. Protect, maintain, and restore natural and cultural resources.   | Consistent. See Policy LU-5.4 below.  |
| <b>Policy LU-5.4.</b> Require water and energy efficiency in both new construction and retrofits.   | Consistent. The project would update existing utility connections (including water and energy) to accommodate new services and buildings proposed under the project. The MDP states that all new buildings would meet building code standards for energy and water conservation. The MDP lists several sustainability standards; these include the following related to energy and water efficiency: <ul style="list-style-type: none"> <li>▪ Reduce energy consumption by up to 25% as measured in kBtus/square foot</li> <li>▪ Implement retro-commissioning programs across the system aimed at improving energy use through more effective operations</li> <li>▪ Replace aging equipment such as chillers, boilers, air handler units, medical gas systems with more efficient equipment</li> </ul>       |

**Table 3-1 Consistency with Applicable 2040 General Plan Goals and Policies**

| Envision Stockton 2040 General Plan   |   |
|---|---|
|   | <ul style="list-style-type: none"> <li>▪ Increase use of renewable energy by 20%</li> <li>▪ Implement renewable energy sources including photovoltaic, solar hot water, cogeneration, fuel cells, geothermal, and wind where economically viable through the use of Power Purchase Agreements and internal funding</li> <li>▪ Pursue and participate in, where economically viable, renewable energy through local energy supplier or third-party firms</li> <li>▪ Increase number of electric vehicle charging stations according to demand, per state law</li> <li>▪ Reduce water consumption by 25%</li> <li>▪ Installation of smart meters for landscape irrigation minimizing overwatering</li> <li>▪ Rebuild colling towers to recue water loss from evaporation and drift</li> <li>▪ Installation of sub meters to track end use consumption and pinpoint opportunities to reduce water consumption</li> <li>▪ Design and construction the new Acute Care Building 15% below code required energy efficiency</li> <li>▪ Maintain window/wall ratios to maximize energy efficiency through decreased heat gain by selectively choosing exterior material and window reflectance</li> <li>▪ Select high efficiently mechanical equipment matched to anticipated cooling loads over the highest percentage of operating hours</li> <li>▪ Retrofits to existing buildings would occur over time as renovations are made to existing buildings</li> </ul> |
| <b>Goal LU-6.</b> Effective Planning. Provide for orderly, well-planned, and balanced development.      | Consistent. See Policies LU-6.1 through LU-6.3 below.   |
| <b>Policy LU-6.1.</b> Carefully plan for future development and proactively mitigate potential impacts. | Consistent. The MDP provides a land use tool and regulatory document for the City and Medical Center to establish the vision, development standards, design guidelines and strategies to guide future development of the Medical Center. The MDP is intended to provide flexibility and outline the project planning review process for the City. Approval of the MDP is subject to environmental review and mitigation measures prescribed in this Draft EIR. These mitigation measures are required to reduce and/or avoid potentially significant environmental impacts to the greatest extent feasible.   |
| <b>Policy LU-6.2.</b> Prioritize development of vacant, underutilized, and blighted infill areas.       | Consistent. The Medical Center campus is located in a developed area of downtown Stockton. The majority of development proposed on the MDP Master Site Plan would occur on parcels that are underutilized and used for surface parking or include vacant buildings and would be considered an infill site.  |

**Table 3-1 Consistency with Applicable 2040 General Plan Goals and Policies**

| Envision Stockton 2040 General Plan   |  |
|---|--|
| <p><b>Policy LU-6.3.</b> Ensure that all neighborhoods have access to well-maintained public facilities and utilities that meet community service needs.</p>                  | <p>Consistent. The project would upgrade utilities to accommodate enhanced medical services that would serve the campus as well as adjacent areas and would expand medical facilities to establish the Medical Center as a regional provider for health care services.</p>   |
| <p><b>Policy LU-6.4.</b> Ensure that land use decision balance travel origins and destination in as close proximity as possible, and reduce vehicle miles traveled (VMT).</p> | <p>Consistent. The Medical Center campus is located in a developed area of the City near downtown, residential neighborhoods, and commercial uses. Medical offices and other medical support facilities are adjacent to the campus. Existing transit also provides service to the area. By redeveloping the existing campus, the project would help to reduce a future increase in VMT, consistent with this policy.</p>   |
| <p><b>Policy LU-6.6.</b> Coordinate land use planning efforts among City departments and with regional agencies.</p>  | <p>Consistent. The project applicant has been working with the City on the MDP and Development Agreement. The Notice of Preparation and EIR prepared for the project was provided to all local, regional, and state agencies for review and comment. The project applicant has held outreach meetings to the adjacent businesses and residents. The project applicant would continue to work with City staff and other stakeholders through the process.</p>   |
| Transportation Chapter  |  |
| <p><b>Goal TR-2.</b> Active Community. Offer active transportation opportunities for the entire community.</p>  | <p>Consistent. See Policy TR-2.2 below.</p>  |
| <p><b>Policy TR-2.2.</b> Connect housing and employment development in areas with good transit access through open and inclusive processes where appropriate.</p>             | <p>Consistent. The MDP involves the development of facilities that would provide employment opportunities in proximity to existing transit services. There are two (2) existing San Joaquin Regional Transit District (RTD) bus stops along the western boundary of the project site on N. California Street. RTD is the primary regional transit provide for San Joaquin County which provides transit services in the Stockton Metropolitan area as well as intercity and rural transit services countywide.</p> |

**Table 3-1 Consistency with Applicable 2040 General Plan Goals and Policies**

| Envision Stockton 2040 General Plan  |   |
|--|---|
| Community Health Chapter   |   |
| <p><b>Goal CH-2.</b> Restored Communities. Restore disadvantaged communities to help them become more vibrant and cohesive neighborhoods with high-quality affordable housing, a range of employment options, enhanced social and health services, and active public spaces.</p> | <p>Consistent. See Policy CH-3-3 below. The project would improve healthcare delivery for a population that includes a significant segment of people who qualify as low income. The project would provide services for patients of all income levels and payer sources. The Medical Center campus is located within close proximity to a Stockton neighborhood that qualifies as “disadvantaged” under California screening standards for census tracts. The project would also provide short-term construction jobs and long-term jobs for a range of positions within the Medical Center. It is anticipated that the project would generate 365 new jobs at build-out, which represents an increase of Medical Center staff by approximately 12%.</p> |
| <p><b>Policy CH-2.2.</b> Stimulate investment through partnerships with private property owners, neighborhood groups, health and housing advocates, nongovernmental organizations, and other community supporters.</p>   | <p>Consistent. The project provides a plan to develop new Medical Center facilities that would benefit the City and the larger region’s overall healthcare needs. Future development under the MDP would likely be funded through streams of both public and private investment.</p>  |
| <p><b>Goal CH-3.</b> Skilled Workforce. Expand opportunities for local enterprise, entrepreneurship, and gainful employment.</p>   | <p>Consistent. See Policy CH-3.3 below.</p>   |
| <p><b>Policy CH-3.3.</b> Ensure that Stockton youth and adults have access to the services and resources they need to enhance their vocational and professional skills for job readiness and retention.</p>  | <p>Consistent. The project would expand the Medical Center’s learning environment that serves as a medical teaching institution for the Northern San Joaquin Valley. The project would increase educational opportunities for residents to enhance their vocational and professional skills by enhancing teaching facilities and capabilities. The project involves the expansion of the Graduate Medical Education program that would attract aspiring and practicing physicians, other medical professionals, and technology professionals.</p>   |

## 3.5 References

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City of Stockton. 2018b. *Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR*. Accessed May 23, 2022. [http://www.stocktonca.gov/files/EnvisionStockton2040GP\\_DEIR.pdf](http://www.stocktonca.gov/files/EnvisionStockton2040GP_DEIR.pdf).

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# 4 Introduction to the Environmental Analysis

## Scope of the EIR Analysis

This chapter of the Draft Environmental Impact Report (EIR) describes the environmental and regulatory setting, impacts, and mitigation measures for each of the following technical sections included within Chapter 4 (Sections 4.1 through 4.11):

- 4.1 Air Quality
- 4.2 Aesthetics
- 4.3 Biological Resources
- 4.4 Cultural, Tribal and Historic Resources
- 4.5 Energy
- 4.6 Geology and Soils
- 4.7 Greenhouse Gases
- 4.8 Hazards and Hazardous Materials
- 4.9 Noise and Vibration
- 4.10 Public Utilities
- 4.11 Transportation and Circulation

Implementation of the St. Joseph’s Medical Center of Stockton Hospital Expansion Project (“proposed project”), which includes a Master Development Plan (MDP) for the entire campus, must be consistent with the City of Stockton (City) Envision Stockton 2040 General Plan goals and policies, and all applicable regulations, such as California Building Code standards. Therefore, such policies and standards are not identified as mitigation, and compliance with relevant goals, policies, and federal, state or City requirements are instead described within the impact analysis. In addition, the policies, actions, design guidelines and development standards set forth in the MDP and Development Agreement take precedence over the City’s Municipal Code, except where the MDP is silent or specifically references the Municipal Code. Lastly, certain components of the proposed project are also subject to the California Department of Health Care Access and Information (HCAI), formerly the Office of Statewide Health Planning and Development (OSHPD).

## Technical Studies

A number of technical studies were prepared for the proposed project to support both the Initial Study (Appendix B) and the text of Chapter 4 of the EIR, which addresses the environmental issues not resolved in the Initial Study portion of the EIR (Appendix B). The technical studies that support the Initial Study are appended to that document while the technical studies that support the EIR are included in the appendices of this document. Studies prepared include the results of the air quality and greenhouse gas CalEEMod Model outputs (Appendix C), Biological Resources Assessment and Arborist Report (Appendix D), Cultural Resources Report and Historical Resources Inventory and Evaluation Report (Appendix E), Geotechnical Report (Appendix F), Phase 1 and Phase 2 Environmental Site Assessments (Appendix G), Water Supply Assessment, Sewer Capacity Study, and other utility

reports (Appendix H) Transportation Technical Memorandum (Appendix I), Health Risk Assessment (Appendix J), noise model outputs (Appendix K), and preliminary Drainage Report (Appendix L).

## Environmental Setting

According to subdivision (a) of Section 15125 of the California Environmental Quality Act (CEQA) Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project as they exist at the time when the Notice of Preparation (NOP) is published. This “environmental setting” will normally constitute the “baseline condition” against which project-related impacts are compared. Therefore, the baseline conditions for this EIR, unless noted otherwise, are based on conditions that existed in December 2021, when the NOP was published and circulated. The assessment of the project’s vehicle miles traveled (VMT) impact in Section 4.11, Transportation, uses a baseline year of 2018 because it is the most accurate representation of existing 2022 baseline conditions, and other than the Covid-19 pandemic, there have been no significant changes in travel patterns on the adjacent streets and in the transit networks since 2018 (see Section 4.11 for further details). The CEQA Guidelines recognize that the data for establishing an environmental baseline cannot be rigid. Because physical environmental conditions may vary over a range of time, the use of environmental baselines that differ from the date of the NOP is reasonable and appropriate in certain circumstances when doing so results in a more accurate or conservative environmental analysis.

As detailed in Chapter 2, Project Description, the MDP establishes the foundation for the hospital expansion and for future growth of the Medical Center. The MDP identifies five (5) phases of development with Phases 1–4 (“Initial Expansion”) to include the following uses: a new Acute Care Hospital Tower, multistory parking garage, Central Utility Plant, expansion of the existing Generator building, and other required support facilities within the Medical Center campus boundaries. Phase 5 is considered a future phase which may include expansion of the Acute Care Hospital building along with additional parking. The EIR evaluates Phases 1–4 on a project level based on the details provided in Chapter 2, and a Project Description for Phase 5 will be evaluated to the extent information is known.

## Section Format

Each section in Chapter 4 begins with a description of the project’s **environmental setting** and **regulatory setting** as it pertains to a particular issue.

The environmental setting identifies the existing conditions present on the project site. The regulatory setting provides a summary of applicable federal, state, and local regulations, plans, policies, and laws that are relevant to each issue area. The regulatory setting also includes guidelines included in the MDP because, if and when the MDP is adopted, these guidelines will aid in future development of the plan area. The regulatory setting description is followed by a discussion of **project-level impacts**. The project-specific impacts discussion is followed by an analysis of the **cumulative impacts** of the project. The impact portion includes an impact statement, prefaced by a number for ease of identification followed by an analysis of that impact and a determination of whether the impact would be significant (that is, exceed the applicable threshold) or less than significant (that is, below the applicable threshold). If a significant impact is identified, mitigation measures are recommended, if available, to reduce the severity of the impact. All **mitigation measures** are identified at the end of each impact discussion. The degree to which the identified mitigation measure(s) would reduce the impact is also described.

In determining the level of significance of environmental impacts associated with the proposed project, the analysis in this Draft EIR assumes that the proposed project would comply with relevant federal and state laws and regulations, relevant City General Plan policies, City ordinances, other adopted City documents, policies, and development standards and design guidelines contained in the MDP, unless otherwise noted. Therefore, such mandatory policies, ordinances, and standards are not identified as mitigation measures, but rather are discussed

as part of the “Regulatory Setting” governing the proposed project and compliance with these requirements often mitigate potential impacts.

An example of an impact statement is shown below.

Impact 4.1-1      **The proposed project could result in inadequate emergency access.**

A discussion of potential impacts of the proposed project is presented in paragraph form. The direct and indirect impacts associated with implementation of the project are evaluated and compared to the threshold of significance for the particular impact. The analysis discusses the applicable local, state, and federal laws and regulations/standards that would reduce impacts and assumes that the project would comply with applicable requirements. In many instances, the actions that are necessary to reduce a project impact are already required by compliance with existing laws or requirements. Further, it is assumed the project would obtain all necessary City and state permits and comply with all required conditions of those permits. The impact analysis concludes with a determination of the impact’s significance in **bold type** (e.g., **less-than-significant impact, potentially significant impact, significant impact**).

### Mitigation Measures

Following each impact analysis is a discussion of the applicable mitigation measures identified to reduce the significance of an impact, if required.

This section includes a statement indicating whether the mitigation measure will reduce the impact to a less-than-significant level or if, even with mitigation, the impact is significant and unavoidable. A discussion of how the mitigation would reduce the impact is included before the mitigation measure.

Mitigation measures, if applicable, are numbered and presented in the following format.

MM 4.1-1:      Statement of what, if any, mitigation measures are required. Note that CEQA Guidelines, Section 15370, defines mitigation as:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

In some instances, contribution of a project’s fair-share to an established program provided there is a “reasonable plan for mitigation” and fair-share contributions are clearly designated to mitigate the impact are considered adequate mitigation for both project and cumulative impacts under CEQA.<sup>1</sup>

### Cumulative Analysis

According to CEQA, “cumulative impacts refer to two (2) or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355).

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<sup>1</sup> See *Save Our Peninsula Com. v. Monterey County Bd. of Supervisors*, (2001) 87 Cal.App.4th 99, 141; and CEQA Guidelines, Section 15130, subd. (a)(3) ([recognizing that a project’s contribution to a cumulative impact may be less than cumulatively considerable where “the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact”]). See also *Anderson First Coalition v. City of Anderson*, (2005) 130 Cal.App.4th 1173).

CEQA requires that cumulative impacts be discussed when the “project’s incremental effect is cumulatively considerable” (CEQA Guidelines Section 15130 (a)).

An analysis of cumulative impacts follows the evaluation of project impacts under existing conditions in each section in Chapter 4. The cumulative impacts analyze the extent to which the project would contribute to cumulative impacts as defined by CEQA, and whether that contribution would be considerable (i.e., would cause a cumulative condition to be significant and/or substantially increase the severity of an existing cumulative impact such that the project’s contribution is substantial resulting in a significant contribution). An introductory statement that defines the cumulative analysis methodology and the cumulative context for respective sections (e.g., buildout of the City’s General Plan, development within the San Joaquin Valley Air Basin) is at the beginning of the “Cumulative Analysis” discussion. In some instances, a project-specific impact may be considered less than significant but the project’s contribution may be considered potentially significant (cumulatively considerable) in combination with other development within the surrounding area. Or, in some instances, a potentially significant impact could result on a project level but would not result in a cumulatively considerable impact. The cumulative impacts analysis is presented in the same format as the impacts section, shown above.

### Terminology Used in the EIR

This Draft EIR uses the following terminology to describe environmental effects of the proposed project:

- **Standards of Significance:** A set of criteria used by the lead agency to determine at what level or “threshold” an impact would be considered significant. Standards of significance used in this EIR include those set forth in CEQA Guidelines Section 15065 (Mandatory Findings of Significance) and those derived from questions set forth in Appendix G to the CEQA Guidelines; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in other applicable planning documents. In fashioning criteria based on these sources, City staff and the EIR preparers have also relied on their own professional judgment and experience in some instances. In determining the level of significance, the analysis assumes that the proposed project would comply with relevant federal, state, and local regulations and ordinances.
- **No Impact:** If it is clear the project would not cause any change in the environment it is identified as no impact.
- **Less-than-Significant Impact:** A project impact is considered less than significant when it does not reach the standard of significance, indicating that there would be no substantial change in the environment. No mitigation is required for less-than-significant impacts.
- **Potentially Significant Impact:** A potentially significant impact is an environmental effect that could cause a substantial adverse change in the environment; however, additional information is needed regarding the extent of the impact to make the determination of significance. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.
- **Significant Impact:** A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. When available, potentially feasible mitigation measures and/or project alternatives are identified to reduce these effects to the environment.

**Significant and Unavoidable Impact:** A project impact is considered significant and unavoidable if it results in a substantial adverse change in the physical conditions of the environment and there are no potentially feasible mitigation measures available to reduce these effects to less than significant.

## 4.1 Air Quality

### 4.1.1 Introduction

This section describes the existing air quality conditions of the St. Joseph’s Medical Center of Stockton Hospital Expansion Project (“proposed project”) project site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts of the project with respect to consistency with air quality plans, emission of criteria air pollutants, and exposure to pollutant concentrations.

Comments received in response to the Notice of Preparation included concerns regarding air quality emissions associated with the increase in project vehicles received from the Sierra Club Delta-Sierra Group. A copy of the Notice of Preparation and comments received is included in Appendix A.

Information contained in this section is based on the latest version of California Emissions Estimator Model (CalEEMod) Version 2022.1.5. to estimate the proposed project’s criteria air pollutant emissions from both construction and operations. In addition, a Health Risk Assessment (HRA) was performed to determine the potential cancer risk and non-cancer health impacts to existing sensitive residential receptors in proximity to the project site due to toxic air contaminant (TAC) emissions from construction and operational activities. The HRAs were performed using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 21112 and the Hotspots Analysis and Reporting Program Version 2 (HARP2). For relevant data, please see Appendix C for the air quality, greenhouse gas emissions, and energy calculations, and Appendix J, Health Risk Assessment data.

Additional sources reviewed to prepare this section include the Transportation Technical Memorandum, included as Appendix I, the San Joaquin Valley Air Pollution Control District (SJVAPCD) Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD 2015a), the Envision Stockton 2040 General Plan (City of Stockton 2018), and the Office of Environmental Health Hazards Assessment’s (OEHHA) 2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015). Other sources consulted are listed in Section 4.1.5, References.

### 4.1.2 Environmental Setting

Ambient air quality is generally affected by climatological conditions; the topography of the air basin; the type and amounts of pollutants emitted; and, for some pollutants, sunlight. The St. Joseph’s Medical Center of Stockton (“Medical Center”) is located within the San Joaquin Valley Air Basin (SJVAB), which consists of eight (8) counties and is spread across 25,000 square miles of Central California. The SJVAB is bordered on the east by the Sierra Nevada (8,000–14,491 feet in elevation), on the west by the Coast Ranges (averaging 3,000 feet in elevation), and to the south by the Tehachapi Mountains (6,000–7,981 feet in elevation). In the north, it extends to the northern boundary of San Joaquin County (SJVAPCD 2015a).

The San Joaquin Valley comprises the southern half of California’s Central Valley, is approximately 250 miles long, and averages 35 miles wide with a slight downward elevation gradient from Bakersfield in the southeast end (elevation 408 feet) to sea level at the northwest end where the San Joaquin Valley opens to the San Francisco Bay at the Carquinez Strait. Its northern end in the Sacramento Valley comprises the northern half of California’s Central Valley. The region’s topographic features restrict air movement through and out of the SJVAB. As a result, the SJVAB is highly susceptible to pollutant accumulation over time.



## Climate and Meteorology

The San Joaquin Valley is in a Mediterranean Climate Zone, influenced by a subtropical high-pressure cell most of the year and characterized by warm, dry summers and cooler winters. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summertime maximum temperatures in the San Joaquin Valley often exceed 100 °F. The SJVAB averages 13.8 inches of precipitation per year (WRCC 2017).

The vertical dispersion of air pollutants in the San Joaquin Valley can be limited by the presence of persistent temperature inversions. Air temperatures usually decrease with an increase in altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. A temperature inversion can act like a lid, restricting vertical mixing of air above and below an inversion because of differences in air density and thereby trapping air pollutants below the inversion. The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in air temperature inversions. Most of the surrounding mountains are above the normal height of summer inversions (1,500–3,000 feet). Wintertime high-pressure events can often last many weeks with surface temperatures lowering into 30 °F–40 °F. During these events, fog can be present and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutant to a few hundred feet.

Wind speed and direction play an important role in dispersion and transport of air pollutants. Winds in the San Joaquin Valley most frequently blow from the northwesterly direction, especially in the summer. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the San Joaquin Valley. Marine air can flow into the SJVAB from the Sacramento–San Joaquin River Delta and over Altamont Pass and Pacheco Pass. From there, it can flow through the San Joaquin Valley, over the Tehachapi Pass, and into the Mojave Desert Air Basin. The Coastal Range and the Sierra Nevada are barriers to air movement to the west and east, respectively. A secondary but significant summer wind pattern is from the southeasterly direction and can be associated with nighttime drainage winds, prefrontal conditions, and summer monsoons. During winter, winds can be very weak, which minimizes the transport of pollutants and results in stagnation events.

Two (2) significant diurnal wind cycles that occur frequently in the San Joaquin Valley are the sea breeze and mountain-valley upslope and drainage flows. The sea breeze can accentuate the northwest wind flow, especially on summer afternoons. Nighttime drainage flows can accentuate the southeast movement of air down the San Joaquin Valley. In the mountains during periods of weak synoptic scale winds, winds tend to be upslope during the day and downslope at night. Nighttime flows are pronounced during the winter months when flow from the easterly direction is enhanced by nighttime cooling in the Sierra Nevada. Eddies<sup>1</sup> can form in the valley wind flow and can recirculate a polluted air mass for an extended period.

Solar radiation and temperature are particularly important in the chemistry of ozone (O<sub>3</sub>) formation. The SJVAB averages over 260 sunny days per year. Photochemical air pollution (primarily O<sub>3</sub>) results from the atmospheric reactive organic gases (ROGs) and nitrogen dioxide (NO<sub>2</sub>) under the influence of sunlight. O<sub>3</sub> concentrations are very dependent on the amount of solar radiation, especially during late spring, summer and early fall. O<sub>3</sub> levels typically peak in the afternoon. After the sun goes down, the chemical reaction between NO<sub>2</sub> and O<sub>3</sub> begins to dominate. This reaction tends to reduce O<sub>3</sub> concentrations in the metropolitan areas through the early morning hours. At sunrise, oxides of nitrogen (NO<sub>x</sub>) tends to peak, partly due to low levels of O<sub>3</sub> at this time and also due to the morning commuter vehicle emissions of NO<sub>x</sub>.

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<sup>1</sup> When wind encounters a solid object, a whirl of air (called an eddy) forms off the leeward side of the object.

Reaction rates generally increase with temperature, which results in greater O<sub>3</sub> production at higher temperatures. However, extremely hot temperatures can “lift” or “break” the inversion layer. Typically, if the inversion layer remains intact, O<sub>3</sub> levels peak in the late afternoon. If the inversion layer breaks and the resultant afternoon winds occur, O<sub>3</sub> levels peak in the early afternoon and decrease in the late afternoon as the contaminants are dispersed or transported out of the SJVAB. O<sub>3</sub> levels are low during winter periods when there is much less sunlight to drive the photochemical reaction.

## Pollutants and Effects

### Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The national and California standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O<sub>3</sub>, NO<sub>2</sub>, carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>), and lead. In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants. These pollutants, as well as TACs, are discussed in the following paragraphs.<sup>2</sup>

**Ozone.** O<sub>3</sub> is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three (3) oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun’s energy and O<sub>3</sub> precursors. These precursors are mainly NO<sub>x</sub> and volatile organic compounds (VOCs) (also termed ROG). The maximum effects of precursor emissions on O<sub>3</sub> concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O<sub>3</sub> formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O<sub>3</sub> exists in the upper atmosphere O<sub>3</sub> layer (stratospheric O<sub>3</sub>) and at the Earth’s surface in the troposphere (ground-level O<sub>3</sub>).<sup>3</sup> The O<sub>3</sub> that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O<sub>3</sub> is a harmful air pollutant that causes numerous adverse health effects and is thus considered “bad” O<sub>3</sub>. Stratospheric, or “good,” O<sub>3</sub> occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth’s atmosphere. Without the protection of the beneficial stratospheric O<sub>3</sub> layer, plant and animal life would be seriously harmed.

O<sub>3</sub> in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O<sub>3</sub> at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013).

Inhalation of O<sub>3</sub> causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms. Exposure to O<sub>3</sub> can reduce the volume of air that the lungs breathe in, thereby causing shortness of breath. O<sub>3</sub> in sufficient doses increases the permeability of lung cells, rendering them more

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<sup>2</sup> The descriptions of the criteria air pollutants and associated health effects are based on the U.S. Environmental Protection Agency’s “Criteria Air Pollutants” (EPA 2021), as well as the California Air Resources Board’s “Glossary” (CARB 2019a) and “Fact Sheet: Air Pollution Sources, Effects and Control” (CARB 2009).

<sup>3</sup> The troposphere is the layer of the Earth’s atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

susceptible to toxins and microorganisms. The occurrence and severity of health effects from O<sub>3</sub> exposure vary widely among individuals, even when the dose and the duration of exposure are the same. Research shows adults and children who spend more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of O<sub>3</sub> exposure. While there are relatively few studies on the effects of O<sub>3</sub> on children, the available studies show that children are no more or less likely to suffer harmful effects than adults. However, there are a number of reasons why children may be more susceptible to O<sub>3</sub> and other pollutants. Children and teens spend nearly twice as much time outdoors and engaged in vigorous activities as adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults. Also, children are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults. Children, adolescents, and adults who exercise or work outdoors, where O<sub>3</sub> concentrations are the highest, are at the greatest risk of harm from this pollutant (CARB 2019b).

**Nitrogen Dioxide.** NO<sub>2</sub> is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO<sub>2</sub> in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO<sub>x</sub> plays a major role, together with VOCs, in the atmospheric reactions that produce O<sub>3</sub>. NO<sub>x</sub> is formed from fuel combustion under high temperature or pressure. In addition, NO<sub>x</sub> is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two (2) major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers. Furthermore, wildfire outbreaks can lead to extreme biomass burning emissions of both oxidized NO<sub>2</sub> and a reduced form of nitrogen compounds. NO<sub>2</sub> can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016).

A large body of health science literature indicates that exposure to NO<sub>2</sub> can induce adverse health effects. The strongest health evidence, and the health basis for the ambient air quality standards for NO<sub>2</sub>, results from controlled human exposure studies that show that NO<sub>2</sub> exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO<sub>2</sub> exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO<sub>2</sub> than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO<sub>2</sub> exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher levels of exposure compared to children with lower exposure levels. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB 2019c).

**Carbon Monoxide.** CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the Project location, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

CO is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2019d).

**Sulfur Dioxide.** SO<sub>2</sub> is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO<sub>2</sub> are coal and oil used in power plants and industries; as such, the highest levels of SO<sub>2</sub> are generally found near large industrial complexes. In recent years, SO<sub>2</sub> concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO<sub>2</sub> and limits on the sulfur content of fuels.

Controlled human exposure and epidemiological studies show that children and adults with asthma are more likely to experience adverse responses with SO<sub>2</sub> exposure, compared with the non-asthmatic population. Effects at levels near the 1-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. Also, exposure at elevated levels of SO<sub>2</sub> (above 1 parts per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality. Older people and people with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most likely to experience these adverse effects (CARB 2019e).

SO<sub>2</sub> is of concern both because it is a direct respiratory irritant and because it contributes to the formation of sulfate and sulfuric acid in particulate matter (NRC 2005). People with asthma are of particular concern, both because they have increased baseline airflow resistance and because their SO<sub>2</sub>-induced increase in airflow resistance is greater than in healthy people, and it increases with the severity of their asthma (NRC 2005). SO<sub>2</sub> is thought to induce airway constriction via neural reflexes involving irritant receptors in the airways (NRC 2005).

**Particulate Matter.** Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM<sub>2.5</sub> and PM<sub>10</sub> represent fractions of particulate matter. Coarse particulate matter (PM<sub>10</sub>) consists of particulate matter that is 10 microns or less in diameter, which is about 1/7 the thickness of a human hair. Major sources of PM<sub>10</sub> include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter (PM<sub>2.5</sub>) consists of particulate matter that is 2.5 microns or less in diameter, which is roughly 1/28 the diameter of a human hair. PM<sub>2.5</sub> results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, PM<sub>2.5</sub> can be formed in the atmosphere from gases such as sulfur oxides (SO<sub>x</sub>), NO<sub>x</sub>, and VOCs.

PM<sub>2.5</sub> and PM<sub>10</sub> pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM<sub>2.5</sub> and PM<sub>10</sub> can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and

reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM<sub>10</sub> tends to collect in the upper portion of the respiratory system, PM<sub>2.5</sub> is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

A number of adverse health effects have been associated with exposure to both PM<sub>2.5</sub> and PM<sub>10</sub>. For PM<sub>2.5</sub>, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all of the common air pollutants, PM<sub>2.5</sub> is associated with the greatest proportion of adverse health effects related to air pollution, both in the United States and worldwide based on the World Health Organization's Global Burden of Disease Project. Short-term exposures to PM<sub>10</sub> have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2022).

Long-term exposure (months to years) to PM<sub>2.5</sub> has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. The effects of long-term exposure to PM<sub>10</sub> are less clear, although several studies suggest a link between long-term PM<sub>10</sub> exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (CARB 2022).

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

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

**Sulfates.** Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO<sub>2</sub> in the atmosphere and can result in respiratory impairment, as well as reduced visibility.

**Vinyl Chloride.** Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.



**Hydrogen Sulfide.** Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

**Visibility-Reducing Particles.** Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for PM<sub>2.5</sub>.

**Volatile Organic Compounds.** Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O<sub>3</sub> are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O<sub>3</sub> and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate ambient air quality standards for VOCs as a group.

### Non-Criteria Air Pollutants

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

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

**Diesel Particulate Matter.** Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70 the diameter of a human hair), and thus is a subset of PM<sub>2.5</sub> (CARB 2019f). DPM is typically composed of carbon particles (“soot,” also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these



chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2019f). The CARB classified “particulate emissions from diesel-fueled engines” (i.e., DPM) (17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines, including trucks, buses, and cars, and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of PM<sub>2.5</sub>, DPM also contributes to the same non-cancer health effects as PM<sub>2.5</sub> exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2019f). Those most vulnerable to non-cancer health effects are children, whose lungs are still developing, and older people, who often have chronic health problems.

**Odorous Compounds.** Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person’s reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

### Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air-pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air-pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005).

The nearest existing sensitive receptors to the project site include the existing Medical Center facilities and single-family and multifamily residences which are across N. California Street approximately 80 feet to the west. The closest school to the project site is the Stockton Unified Early College Academy, which is located approximately 165 to 170 feet to the south.

### Regional and Local Air Quality Conditions

Both the federal and state Clean Air Acts have established standards identifying the maximum allowable concentration of criteria air pollutants. The EPA and CARB use air quality monitoring data to determine if each air basin or county is in compliance with the applicable standards. If the concentration of a criteria air pollutant is lower than the standard or not monitored in an area, the area is classified as attainment or unclassified (unclassified areas are treated as attainment areas). If an area exceeds the standard, the area is classified as nonattainment for that pollutant. Nonattainment areas are ranked as marginal, moderate, serious, severe, or extreme according to the degree of nonattainment.

The EPA has designated the SJVAB as a nonattainment area for the federal 8-hour O<sub>3</sub> standard, and CARB has designated the SJVAB as a nonattainment area for the state 1-hour and 8-hour O<sub>3</sub> standards. The SJVAB has been designated as a nonattainment area for the state 24-hour and annual PM<sub>10</sub> standards, nonattainment area for the federal 24-hour and annual PM<sub>2.5</sub> standards, and nonattainment area for the state annual PM<sub>2.5</sub> standard. The SJVAB is designated as unclassified or attainment for the other criteria air pollutants. The status of the SJVAB with respect to the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) are summarized in Table 4.1-1, San Joaquin Valley Air Basin Attainment Status.

**Table 4.1-1. San Joaquin Valley Air Basin Attainment Status**

| Pollutant   | Designation/Classification           |                                   |
|---|--------------------------------------|-----------------------------------|
|   | Federal Standards                    | State Standards                   |
| Ozone (O <sub>3</sub> ) – 1-hour                  | No federal standard <sup>1</sup>     | Nonattainment/severe <sup>2</sup> |
| Ozone (O <sub>3</sub> ) – 8-hour                  | Nonattainment/extreme <sup>3,4</sup> | Nonattainment                     |
| Nitrogen dioxide (NO <sub>2</sub> )               | Unclassifiable/attainment            | Attainment                        |
| Carbon monoxide (CO)                              | Unclassifiable/attainment            | Attainment                        |
| Sulfur dioxide (SO <sub>2</sub> )                 | Unclassifiable/attainment            | Attainment                        |
| Respirable particulate matter (PM <sub>10</sub> ) | Attainment <sup>5</sup>              | Nonattainment                     |
| Fine particulate matter (PM <sub>2.5</sub> )      | Nonattainment <sup>6</sup>           | Nonattainment                     |
| Lead (Pb) <sup>7</sup>                            | Unclassifiable/attainment            | Attainment                        |
| Sulfates (SO <sub>4</sub> )                       | No federal standard                  | Attainment                        |
| Hydrogen sulfide (H <sub>2</sub> S)               | No federal standard                  | Unclassified                      |
| Vinyl chloride <sup>7</sup>                       | No federal standard                  | No designation                    |
| Visibility-reducing particles                     | No federal standard                  | Unclassified                      |

**Sources:** SJVAPCD 2015a; EPA 2022a (national); CARB 2020 (California).

**Notes:** Attainment = meets the standards; Attainment (maintenance) = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or unclassifiable = insufficient data to classify; Unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

- <sup>1</sup> Effective June 15, 2005, the EPA revoked the federal 1-hour O<sub>3</sub> standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the *2004 Extreme Ozone Attainment Demonstration Plan* (SJVAPCD 2004) on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour O<sub>3</sub> nonattainment areas continue to apply to the SJVAB.
- <sup>2</sup> Severe areas have a design value of 0.190 up to 0.280 ppm and has 17 years to attain.
- <sup>3</sup> Though the San Joaquin Valley was initially classified as serious nonattainment for the 1997 8-hour O<sub>3</sub> standard, EPA approved San Joaquin Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
- <sup>4</sup> Extreme areas have a design value of 0.280 ppm and above.
- <sup>5</sup> On September 25, 2008, EPA re-designated the San Joaquin Valley to attainment for the PM<sub>10</sub> NAAQS and approved the PM<sub>10</sub> Maintenance Plan.
- <sup>6</sup> The San Joaquin Valley is designated nonattainment for the 1997 PM<sub>2.5</sub> NAAQS. EPA designated the San Joaquin Valley as nonattainment for the 2006 PM<sub>2.5</sub> NAAQS on November 13, 2009 (effective December 14, 2009).
- <sup>7</sup> CARB has identified Pb and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined.

## Local Ambient Air Quality

Under authority and oversight from the EPA pursuant to 40 Code of Federal Regulations (CFR) Part 58, the SJVAPCD and CARB maintain ambient air quality monitoring stations throughout the SJVAB, and the SJVAPCD currently operates 22 monitoring stations. In addition, the SJVAPCD gathers air quality data from a variety of monitoring sites from other contracted agencies (e.g., United States Marine Corps). Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Not all air pollutants are monitored at each station; thus, data are summarized from the closest representative station that monitors a specific pollutant.

The closest ambient air quality monitoring station to the campus that monitors O<sub>3</sub>, NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> is the Stockton-Hazelton Street monitoring station, located at 1601 East Hazelton Avenue, Stockton, CA 95205, approximately 1.6 miles to the southeast. The data collected at this station are considered generally representative of the air quality experienced in the project vicinity because it is the nearest air quality monitoring station to the project site. The most recent background ambient air quality data from 2018 to 2020 and the number of days exceeding the ambient air quality standards are presented in Table 4.1-2, Local Ambient Air Quality Data. As shown in the table, ozone levels have exceeded state and federal standards.

**Table 4.1-2. Local Ambient Air Quality Data**

| Averaging Time   | Unit              | Agency/<br>Method | Ambient<br>Air<br>Quality<br>Standard | Measured Concentration<br>by Year |       |       | Exceedances by Year |             |              |
|--|-------------------|-------------------|---------------------------------------|-----------------------------------|-------|-------|---------------------|-------------|--------------|
|  |                   |                   |                                       | 2018                              | 2019  | 2020  | 2018                | 2019        | 2020         |
| <b>Ozone (O<sub>3</sub>) – Stockton- Hazelton Street</b>                                   |                   |                   |                                       |                                   |       |       |                     |             |              |
| Maximum 1-hour concentration   | ppm               | State             | 0.12                                  | 0.088                             | 0.098 | 0.100 | 0                   | 1           | 1            |
| Maximum 8-hour concentration   | ppm               | State             | 0.070                                 | 0.078                             | 0.078 | 0.075 | 2                   | 2           | 2            |
|  |                   | Federal           | 0.070                                 | 0.077                             | 0.077 | 0.074 | 1                   | 2           | 2            |
| <b>Nitrogen Dioxide (NO<sub>2</sub>) – Stockton- Hazelton Street</b>                       |                   |                   |                                       |                                   |       |       |                     |             |              |
| Maximum 1-hour concentration   | ppm               | State             | 0.18                                  | 0.065                             | 0.072 | 0.060 | 0                   | 0           | 0            |
|  |                   | Federal           | 0.100                                 | 0.065                             | 0.072 | 0.060 | 0                   | 0           | 0            |
| Annual concentration   | ppm               | State             | 0.030                                 | 0.012                             | 0.011 | 0.011 | –                   | –           | –            |
|  |                   | Federal           | 0.053                                 | 0.012                             | 0.012 | 0.011 | –                   | –           | –            |
| <b>Carbon Monoxide (CO) – Stockton- Hazelton Street</b>                                    |                   |                   |                                       |                                   |       |       |                     |             |              |
| Maximum 1-hour concentration   | ppm               | State             | 20                                    | 3.0                               | 3.1   | 2.7   | 0                   | 0           | 0            |
|  |                   | Federal           | 35                                    | 3.0                               | 3.1   | 2.7   | 0                   | 0           | 0            |
| Maximum 8-hour concentration   | ppm               | State             | 9.0                                   | 2.7                               | 1.4   | 2.2   | 0                   | 0           | 0            |
|  |                   | Federal           | 9                                     | 2.7                               | 1.4   | 2.2   | 0                   | 0           | 0            |
| <b>Coarse Particulate Matter (PM<sub>10</sub>)<sup>a</sup> – Stockton- Hazelton Street</b> |                   |                   |                                       |                                   |       |       |                     |             |              |
| Maximum 24-hour concentration  | µg/m <sup>3</sup> | State             | 50                                    | 198.6                             | 89.1  | 148.5 | 31.7<br>(5)         | 45.4<br>(7) | ND (12)      |
|  |                   | Federal           | 150                                   | 187.0                             | 85.9  | 147.9 | 13.1<br>(2)         | 0 (0)       | ND (0)       |
| Annual concentration   | µg/m <sup>3</sup> | State             | 20                                    | 28.7                              | 24.4  | 33.5  | –                   | –           | –            |
| <b>Fine Particulate Matter (PM<sub>2.5</sub>)<sup>a</sup> – Stockton- Hazelton Street</b>  |                   |                   |                                       |                                   |       |       |                     |             |              |
| Maximum 24-hour concentration  | µg/m <sup>3</sup> | Federal           | 35                                    | 188.0                             | 50.1  | 130.7 | 25.0<br>(25)        | 6.4 (6)     | 23.2<br>(23) |
| Annual concentration   | µg/m <sup>3</sup> | State             | 12                                    | 188.0                             | 50.1  | 130.7 | –                   | –           | –            |
|  |                   | Federal           | 12.0                                  | 17.5                              | 9.3   | 14.3  | –                   | –           | –            |

**Sources:** CARB 2021a; EPA 2022b.

**Notes:** ppm = parts per million by volume; ND = insufficient data available to determine the value; – = not available; µg/m<sup>3</sup> = micrograms per cubic meter.

Data taken from CARB iADAM (<http://www.CARB.ca.gov/adam>) and EPA AirData (<http://www.epa.gov/airdata/>) represent the highest concentrations experienced over a given year.

Daily exceedances for particulate matter are estimated days because PM<sub>10</sub> and PM<sub>2.5</sub> are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual PM<sub>10</sub>, or 24-hour SO<sub>2</sub>, nor is there a state 24-hour standard for PM<sub>2.5</sub>.

The Stockton- Hazelton Street monitoring station is located at 1601 East Hazelton Ave, Stockton, California.

<sup>a</sup> Measurements of PM<sub>10</sub> and PM<sub>2.5</sub> are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

### 4.1.3 Regulatory Setting

#### Federal Regulations

##### Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting NAAQS for major air pollutants; setting hazardous air pollutant (HAP) standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O<sub>3</sub> protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O<sub>3</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are based on statistical calculations over one (1) - to three (3) -year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every five (5) years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the NAAQS within mandated time frames. The Clean Air Act identifies two (2) types of national ambient air quality standards. Primary standards provide public health protection, including protecting the health of sensitive receptors. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

##### Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify National Emission Standards for Hazardous Air Pollutants to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 187 substances and chemical families were identified as HAPs.

#### State Regulations

##### Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is

responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established CAAQS, which are generally more restrictive than the NAAQS. As stated previously, an ambient 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 harm to the public’s health. For each pollutant, concentrations must be below the relevant CAAQS before a basin can attain the corresponding CAAQS. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and visibility-reducing particles are values that are not to be exceeded.

California air districts have based their thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the air basin can accommodate without affecting the attainment date for the NAAQS or CAAQS. Since an ambient air quality standard is based on maximum pollutant levels in outdoor air that would not harm the public’s health, and air district thresholds pertain to attainment of the ambient air quality standard, this means that the thresholds established by air districts are also protective of human health.

All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.1-3.

**Table 4.1-3. Ambient Air Quality Standards**

| Pollutant                      | Averaging Time         | California Standards <sup>a</sup>  | National Standards <sup>b</sup>                 |                                       |
|--------------------------------|------------------------|------------------------------------|---|---------------------------------------|
|                                |                        | Concentration <sup>c</sup>         | Primary <sup>c,d</sup>                          | Secondary <sup>c,e</sup>              |
| O <sub>3</sub>                 | 1 hour                 | 0.09 ppm (180 µg/m <sup>3</sup> )  | –   | Same as Primary Standard <sup>f</sup> |
|                                | 8 hours                | 0.070 ppm (137 µg/m <sup>3</sup> ) | 0.070 ppm (137 µg/m <sup>3</sup> ) <sup>f</sup> |                                       |
| NO <sub>2</sub> <sup>g</sup>   | 1 hour                 | 0.18 ppm (339 µg/m <sup>3</sup> )  | 0.100 ppm (188 µg/m <sup>3</sup> )              | Same as Primary Standard              |
|                                | Annual Arithmetic Mean | 0.030 ppm (57 µg/m <sup>3</sup> )  | 0.053 ppm (100 µg/m <sup>3</sup> )              |                                       |
| CO                             | 1 hour                 | 20 ppm (23 mg/m <sup>3</sup> )     | 35 ppm (40 mg/m <sup>3</sup> )                  | None                                  |
|                                | 8 hours                | 9.0 ppm (10 mg/m <sup>3</sup> )    | 9 ppm (10 mg/m <sup>3</sup> )                   |                                       |
| SO <sub>2</sub> <sup>h</sup>   | 1 hour                 | 0.25 ppm (655 µg/m <sup>3</sup> )  | 0.075 ppm (196 µg/m <sup>3</sup> )              | –                                     |
|                                | 3 hours                | –                                  | –   | 0.5 ppm (1,300 µg/m <sup>3</sup> )    |
|                                | 24 hours               | 0.04 ppm (105 µg/m <sup>3</sup> )  | 0.14 ppm (for certain areas) <sup>g</sup>       | –                                     |
|                                | Annual                 | –                                  | 0.030 ppm (for certain areas) <sup>g</sup>      | –                                     |
| PM <sub>10</sub> <sup>i</sup>  | 24 hours               | 50 µg/m <sup>3</sup>               | 150 µg/m <sup>3</sup>                           | Same as Primary Standard              |
|                                | Annual Arithmetic Mean | 20 µg/m <sup>3</sup>               | –   |                                       |
| PM <sub>2.5</sub> <sup>i</sup> | 24 hours               | –                                  | 35 µg/m <sup>3</sup>                            | Same as Primary Standard              |
|                                | Annual Arithmetic Mean | 12 µg/m <sup>3</sup>               | 12.0 µg/m <sup>3</sup>                          |                                       |

**Table 4.1-3. Ambient Air Quality Standards**

| Pollutant                     | Averaging Time                        | California Standards <sup>a</sup>   | National Standards <sup>b</sup>                           |                          |
|-------------------------------|---------------------------------------|---|---|--------------------------|
|                               |                                       | Concentration <sup>c</sup>  | Primary <sup>c,d</sup>                                    | Secondary <sup>c,e</sup> |
| Lead <sup>i,k</sup>           | 30-day Average                        | 1.5 µg/m <sup>3</sup>   | —   | —                        |
|                               | Calendar Quarter                      | —   | 1.5 µg/m <sup>3</sup><br>(for certain areas) <sup>k</sup> | Same as Primary Standard |
|                               | Rolling 3-Month Average               | —   | 0.15 µg/m <sup>3</sup>                                    |                          |
| Hydrogen sulfide              | 1 hour                                | 0.03 ppm (42 µg/m <sup>3</sup> )  | —   | —                        |
| Vinyl chloride <sup>l</sup>   | 24 hours                              | 0.01 ppm (26 µg/m <sup>3</sup> )  | —   | —                        |
| Sulfates                      | 24 hours                              | 25 µg/m <sup>3</sup>  | —   | —                        |
| Visibility reducing particles | 8 hours (10:00 a.m. to 6:00 p.m. PST) | Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70% | —   | —                        |

**Source:** CARB 2016a.

**Notes:** µg/m<sup>3</sup> = micrograms per cubic meter; mg/m<sup>3</sup> = milligrams per cubic meter; ppm = parts per million by volume; O<sub>3</sub> = ozone; NO<sub>2</sub> = nitrogen dioxide; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = particulate matter with an aerodynamic diameter less than or equal to 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.

<sup>a</sup> California standards for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, suspended particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>b</sup> National standards (other than O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O<sub>3</sub> standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than 1. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

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

<sup>d</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

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

<sup>f</sup> On October 1, 2015, the national 8-hour O<sub>3</sub> primary and secondary standards were lowered from 0.075 to 0.070 ppm.

<sup>g</sup> To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

<sup>h</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

<sup>i</sup> On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.



- j CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- k The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

### CARB's Mobile Source Strategy

On May 16, 2016, CARB released the 2016 Mobile Source Strategy that demonstrates how the state can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years. The actions contained in the 2016 Mobile Source Strategy will deliver broad environmental and public health benefits, as well as support much needed efforts to modernize and upgrade transportation infrastructure, enhance system-wide efficiency and mobility options, and promote clean economic growth in the mobile sector.

The estimated benefits of the strategy in reducing emissions from mobile sources includes an 80% reduction of smog-forming emissions and a 45% reduction in DPM. Statewide, the 2016 Mobile Source Strategy would also result in a 45% reduction in GHG emissions, and a 50% reduction in the consumption of petroleum-based fuels (CARB 2016b).

In September 2019, Governor Newsom signed Senate Bill (SB) 44, which acknowledges the ongoing need to evaluate opportunities for mobile source emissions reductions and requires CARB to update the 2016 Strategy by 2021 and every five years thereafter. Specifically, SB 44 requires CARB to update the 2016 Strategy to include a comprehensive strategy for the deployment of medium- and heavy-duty vehicles for the purpose of meeting air quality standards and reducing GHG emissions. It also directs CARB to set reasonable and achievable goals for reducing emissions by 2030 and 2050 from medium- and heavy-duty vehicles that are consistent with the state's overall goals and maximizes the reduction of criteria air pollutants. In September 2021, CARB developed the 2020 Mobile Source Strategy that, similar to the 2016 Mobile Source Strategy, is a framework to identify the technology trajectories and programmatic concepts to meet our criteria pollutant, GHG, and TAC emission reduction goals from mobile sources. The 2020 Mobile Source Strategy will be incorporated in other planning efforts such as the State Implementation Plan and 2022 Climate Change Scoping Plan Update.

The estimated benefits of the strategy in reducing emissions from mobile sources includes an 82% reduction of smog-forming emissions by 2037 and a 66% reduction in DPM by 2031. The 2020 Mobile Source Strategy would also result in a 76% reduction in GHG emissions by 2045, and 85% and 77% of passenger cars and heavy-duty trucks would be zero-emission vehicles (ZEV) or plug-in hybrid electric vehicles (PHEV) in 2045 (CARB 2021c).

### EO B-48-18: Zero-Emission Vehicles

On January 26, 2018, Governor Brown signed Executive Order (EO) B-48-18 requiring all state entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 electric vehicle (EV) charging stations by 2025. It specifies that 10,000 of the EV charging stations should be direct current fast chargers. This order also requires all state entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a Plug-in Charging Station Design Guidebook and update the 2015 Hydrogen Station Permitting Guidebook (GO-Biz 2015) to aid in these efforts. All state entities are required to participate in updating the 2016 Zero-Emissions Vehicle Action Plan, along with the 2018 ZEV Action

Plan Priorities Update, which includes and extends the 2016 ZEV Action Plan (Caltrans 2016, 2018), to help expand private investment in ZEV infrastructure with a focus on serving low-income and disadvantaged communities.

### EO N-79-20

Governor Gavin Newsom signed EO N-79-20 in September 2020, which sets a statewide goal that 100% of all new passenger car and truck sales in the state will be zero-emissions by 2035. It also sets a goal that 100% of statewide new sales of medium- and heavy-duty vehicles will be zero emissions by 2045, where feasible, and for all new sales of diesel-fuel heavy duty trucks to be zero emissions by 2035. Additionally, the EO targets 100% of new off-road vehicle sales in the state to be zero emission by 2035. CARB is responsible for implementing the new vehicle sales regulation.

### Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the Legislature enacted the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five (5) years. TAC emissions from individual facilities are quantified and prioritized. “High-priority” facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several Airborne Toxic Control Measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025). On June 25, 2020, the CARB adopted the final rule for new standards that require the sale of zero-emission heavy-duty trucks, starting with the 2024 model year. The Advanced Clean Trucks rulemaking finalizes standards that were initially proposed on October 22, 2019 and strengthened in a revised proposal on April 28, 2020 (CARB 2021b). The Advanced Clean Trucks would require manufacturers to sell increasing percentages of zero-emission trucks, is expected to reduce the lifecycle emission of GHGs, eliminate tailpipe emissions of air pollutants, and foster a market for zero-emission heavy-duty trucks.

### California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of

those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This Section also applies to sources of objectionable odors.

### Local Regulations

#### San Joaquin Valley Air Pollution Control District

The SJVAPCD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SJVAB. The SJVAPCD jurisdiction includes all of Merced, San Joaquin, Stanislaus, Madera, Fresno, Kings, and Tulare counties, and the San Joaquin Valley portion of Kern County.

The SJVAPCD has prepared several air quality attainment plans to achieve the O<sub>3</sub> and particulate matter standards, the most recent of which include the 2014 Reasonably Available Control Technology Demonstration for the 8-Hour Ozone State Implementation Plan (SJVAPCD 2014), 2013 Plan for the Revoked 1-Hour Ozone Standard (SJVAPCD 2013), 2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation (SJVAPCD 2007), 2012 PM<sub>2.5</sub> Plan (SJVAPCD 2012), and 2015 Plan for the 1997 PM<sub>2.5</sub> Standard (SJVAPCD 2015b). The following sections summarize key elements of these and other recent air quality attainment plans.

### Ozone Attainment Plans

#### Extreme 1-Hour Ozone Attainment Demonstration Plan

The Extreme 1-Hour Ozone Attainment Demonstration Plan, adopted by the SJVAPCD Governing Board October 8, 2004, sets forth measures and emission-reduction strategies designed to attain the federal 1-hour O<sub>3</sub> standard by November 15, 2010, as well as an emissions inventory, outreach, and rate of progress demonstration. This plan was approved by the EPA on March 8, 2010; however, the EPA's approval was subsequently withdrawn effective November 26, 2012, in response to a decision issued by the U.S. Court of Appeals for the Ninth Circuit (*Sierra Club v. EPA*, 671 F.3d 955) remanding EPA's approval of these State Implementation Plan (SIP) revisions. Concurrent with the EPA's final rule, CARB withdrew the 2004 plan. The SJVAPCD developed a new plan for the 1-hour O<sub>3</sub> standard, the 2013 Plan for the Revoked 1-Hour Ozone Standard, which it adopted in September 2013.

#### 2007 8-Hour Ozone Plan

The 2007 8-Hour Ozone Plan, adopted by the SJVAPCD Governing Board on April 30, 2007, sets forth measures and a "dual path" strategy to attain the federal 1997 8-hour O<sub>3</sub> standard by 2023 for the SJVAB by reducing emissions of O<sub>3</sub> and particulate matter precursors (SJVAPCD 2007). The plan also includes provisions for improved pollution control technologies for mobile and stationary sources, as well as an increase in state and federal funding for incentive-based measures to reduce emissions. Local measures would have been adopted by the SJVAPCD before 2012. This plan was approved by the EPA on April 30, 2012. On November 26, 2012, however, the EPA withdrew its determination that the plan satisfied the federal Clean Air Act requirements regarding emissions growth caused by growth in vehicle miles traveled. Other determinations in the EPA's March 1, 2012, rule approving the plan remain unchanged and in effect. The SJVAPCD is currently in the process of developing an O<sub>3</sub> plan to address EPA's 2008 8-hour O<sub>3</sub> standard, with attainment required by 2032.

## 2009 Reasonably Available Control Technology Demonstration for Ozone State Implementation Plans

On April 16, 2009, the SJVAPCD Governing Board adopted the Reasonably Available Control Technology Demonstration for Ozone State Implementation Plans (2009 RACT SIP) (SJVAPCD 2009). In part, the 2009 RACT SIP satisfied the commitment by the SJVAPCD for a new reasonably available control technology analysis for the 1-hour O<sub>3</sub> plan (see discussion of the EPA withdrawal of approval in the Extreme 1-Hour Ozone Attainment Demonstration Plan summary above) and was intended to prevent all sanctions that could be imposed by EPA for failure to submit a required SIP revision for the 1-hour O<sub>3</sub> standard. With respect to the 8-Hour standard, the plan also assesses the SJVAPCD's rules based on the adjusted major source definition of 10 tons per year (due to the SJVAB's designation as an extreme O<sub>3</sub> nonattainment area), evaluates SJVAPCD rules against new Control Techniques Guidelines promulgated since August 2006, and reviews additional rules and rule amendments that had been adopted by the Governing Board since August 17, 2006, for reasonably available control technology consistency.

## 2013 Plan for the Revoked 1-Hour Ozone Standard

The SJVAPCD developed a plan for EPA's revoked 1-hour O<sub>3</sub> standard after the EPA withdrew its approval of the 2004 Extreme 1-Hour Ozone Attainment Demonstration Plan as a result of litigation. As a result of the litigation, the EPA reinstated previously revoked requirements for 1-hour O<sub>3</sub> attainment plans. The 2013 plan addresses those requirements, including a demonstration of implementation of Reasonably Available Control Measures and a demonstration of a rate of progress averaging 3% annual reductions of ROG or NO<sub>x</sub> emissions every three (3) years. The 2013 Plan for the Revoked 1-Hour Ozone Standard was approved by the Governing Board on September 19, 2013 (SJVAPCD 2013). Based on implementation of the ongoing control measures, preliminary modeling had indicated that the SJVAB would attain the 1-hour O<sub>3</sub> standard by 2017, before the final attainment year of 2022 and without relying on long-term measures under the federal Clean Air Act Section 182(e)(5) ("black box reductions"). While the EPA has revoked the 1-Hour O<sub>3</sub> standard, the State of California continues to rely on the same numeric standard as the former federal 1-Hour O<sub>3</sub> standard, and the SJVAB continues to be in nonattainment for that standard.

## 2014 Reasonably Available Control Technology Demonstration for the 8-Hour Ozone State Implementation Plan

On June 19, 2014, the SJVAPCD Governing Board adopted the 2014 Reasonably Available Control Technology Demonstration for the 8-Hour Ozone State Implementation Plan (SJVAPCD 2014). This RACT SIP includes a demonstration that the SJVAPCD rules implement RACT. The plan reviews each of the NO<sub>x</sub> reduction rules and concludes that they satisfy requirements for stringency, applicability, and enforceability, and meet or exceed RACT. The plan's analysis of further ROG reductions through modeling and technical analyses demonstrates that added ROG reductions will not advance SJVAB's O<sub>3</sub> attainment. Each ROG (i.e., ROG) rule evaluated in the 2009 RACT SIP, however, has been subsequently approved by the EPA as meeting RACT within the last 2 years. The O<sub>3</sub> attainment strategy, therefore, focuses on further NO<sub>x</sub> reductions.

## 2016 Plan for the 8-Hour Ozone Standard

On June 16, 2016, the SJVAPCD Governing Board approved the 2016 Plan for the 2008 8-Hour Ozone Standard. The comprehensive strategy in this plan includes a combination of regulatory actions; incentive programs; technology advancement programs; policy and legislative activities; and public outreach, education, and communication (SJVAPCD 2016a). The plan builds from the regulations adopted under previous District attainment

plans for ozone and PM<sub>2.5</sub> and is projected to reduce NO<sub>x</sub> emissions by over 60% to bring the SJVAB into attainment of EPA's 2008 8-hour ozone standard no later than December 31, 2031

### Particulate Matter Attainment Plans

#### 2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation

On September 20, 2007, the SJVAPCD Governing Board approved the 2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation (SJVAPCD 2007). After achieving compliance with the annual and 24-hour NAAQS for PM<sub>10</sub> during the period from 2003 to 2006,<sup>4</sup> the SJVAPCD prepared the 2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation. The plan includes future emission estimates through 2020 and, based on modeling, projects that SJVAB will continue to attain the PM<sub>10</sub> NAAQS through 2020. The plan does not call for adoption of new control measures. Measures called for in the 2007 8-Hour Ozone Plan and 2008 PM<sub>2.5</sub> Plan (discussed subsequently) will also produce PM<sub>10</sub> benefits; however, the plan does include a contingency plan if future PM<sub>10</sub> levels were to exceed the NAAQS. It also includes a request that the EPA redesignate the SJVAB to attainment status for the PM<sub>10</sub> NAAQS. On October 25, 2007, CARB approved the SJVAPCD's plan with modifications to the transportation conformity budgets. On September 25, 2008, the EPA redesignated the SJVAB to attainment for the PM<sub>10</sub> NAAQS and approved the PM<sub>10</sub> maintenance plan.

#### 2008 PM<sub>2.5</sub> Plan

The SJVAPCD Governing Board adopted the 2008 PM<sub>2.5</sub> Plan on April 30, 2008 (SJVAPCD 2008). This plan is designed to assist the SJVAB in attaining PM<sub>2.5</sub> standards, including the 1997 federal standards, 2006 federal standards, and state standard, as soon as possible. On July 13, 2011, the EPA issued a proposed rule partially approving and disapproving the 2008 PM<sub>2.5</sub> Plan. Subsequently, on November 9, 2011, the EPA issued a final rule approving most of the plan with an effective date of January 9, 2012. However, the EPA disapproved the plan's contingency measures because they would not provide sufficient emission reductions.

#### 2012 PM<sub>2.5</sub> Plan

Approved by the SJVAPCD Governing Board on December 20, 2012, the 2012 PM<sub>2.5</sub> Plan addresses attainment of EPA's 24-hour PM<sub>2.5</sub> standard of 35 micrograms (µg) per cubic meter (m<sup>3</sup>), established in 2006. In addition to reducing direct emissions of PM<sub>2.5</sub>, this plan focuses on reducing emissions of NO<sub>x</sub>, which is a predominant pollutant in the formation of PM<sub>2.5</sub> in the SJVAB. The plan relies on a multilevel approach to reducing emissions through SJVAPCD efforts (industry, the general public, employers, and small businesses) and state/federal efforts (passenger vehicles, heavy-duty trucks, and off-road sources), as well as SJVAPCD and state/federal incentive programs to accelerate replacement of on-road and off-road vehicles and equipment. Through compliance with this attainment plan, the SJVAB would achieve attainment of the federal PM<sub>2.5</sub> standard by the attainment deadline of 2019, with the majority of the SJVAB actually experiencing attainment well before the deadline. The EPA lowered the PM<sub>2.5</sub> standard again in 2012 and is in the process of completing attainment designations.

#### 2015 Plan for the 1997 PM<sub>2.5</sub> Standard

The SJVAPCD Governing Board adopted the 2015 Plan for the 1997 PM<sub>2.5</sub> Standard on April 16, 2015 (SJVAPCD 2015b). This plan addresses the EPA's annual PM<sub>2.5</sub> standard of 15 µg per m<sup>3</sup> and 24-hour PM<sub>2.5</sub> standard of

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<sup>4</sup> Attainment is achieved if the 3-year annual average PM<sub>10</sub> concentration is less than or equal to 50 µg/m<sup>3</sup> and the expected 24-hour exceedance days is less than or equal to 1.0.

65 µg/m<sup>3</sup> established in 1997. While nearly achieving the 1997 standards, the SJVAB experienced higher PM<sub>2.5</sub> levels in winter 2013–2014 due to the extreme drought, stagnation, strong inversions, and historically dry conditions; thus, the SJVAPCD was unable to meet the attainment date of December 31, 2015. Accordingly, this plan also contains a request for a one-time extension of the attainment deadline for the 24-hour standard to 2018 and the annual standard to 2020. The plan builds on past development and implementation of effective control strategies. Consistent with EPA regulations for PM<sub>2.5</sub> plans to achieve the 1997 standards, the plan contains most stringent measures, best available control measures, and additional enforceable commitments for further reductions in emissions and ensures expeditious attainment of the 1997 standard.

### 2016 Moderate Area Plan for the 2012 PM<sub>2.5</sub> Standard

On September 15, 2016, the SJVAPCD Governing Board adopted the 2016 Moderate Area Plan for the 2012 PM<sub>2.5</sub> Standard (SJVAPCD 2016b). This plan addresses the federal mandates for areas classified as “moderate nonattainment” for the 2012 PM<sub>2.5</sub> NAAQS of 12 µg/m<sup>3</sup>. Consistent with EPA’s PM<sub>2.5</sub> Implementation Rule, the plan satisfies the mandate to submit a moderate nonattainment plan to EPA by October 2016, demonstrates impracticability of attaining the 2012 PM<sub>2.5</sub> standard by the moderate nonattainment deadline of 2021, includes a request to reclassify the San Joaquin Valley to a “serious nonattainment” area for the 2012 PM<sub>2.5</sub> standard, satisfies all federal Clean Air Act requirements for moderate nonattainment areas, and demonstrates that emissions are continuing to be reduced in the San Joaquin Valley.

### 2018 Particulate Matter Plans

The SJVAPCD has drafted an attainment strategy to address the 1997, 2006, and 2012 PM<sub>2.5</sub> standards and a plan to demonstrate maintenance of the 1987 PM<sub>10</sub> standard, as required under the federal Clean Air Act (SJVAPCD 2018). The plan builds upon the District’s 1-hour ozone, 8-hour ozone and particulate matter strategies. Air quality modeling for this plan demonstrates that the Valley will attain the standard by 2025, but only if the most stringent feasible control measures are implemented. The plan goes beyond the requirements for a Serious area attainment plan to include the most stringent measures feasible for implementation in the San Joaquin Valley.

### Applicable Rules

Because project construction and non-vehicular operational activities would be located within SJVAB and fall within the jurisdiction of the SJVAPCD, only SJVAPCD regulations are discussed in this section.

The SJVAPCD’s primary means of implementing air quality plans is by adopting and enforcing rules and regulations. Stationary sources within the jurisdiction are regulated by the SJVAPCD’s permit authority and through its review and planning activities. Unlike stationary source projects, which encompass very specific types of equipment, process parameters, throughputs, and controls, air emissions sources from land use development projects are mainly mobile sources (traffic) and area sources (small dispersed stationary and other non-mobile sources), including exempt (i.e., no permit required) sources such as consumer products, landscaping equipment, furnaces, and water heaters. Mixed-use land development projects may include nonexempt sources, including devices such as small to large boilers, stationary internal combustion engines, gas stations, or asphalt batch plants.

Notwithstanding nonexempt stationary sources, which would be permitted on a case-by-case basis, SJVAPCD regulations VIII and IX generally apply to land use development projects and are described as follows:



### **Regulation II – Permits**

- Rule 2201 – New and Modified Stationary Source Review Rule

### **Regulation IV – Prohibitions**

- Rule 4101 – Visible Emissions
- Rule 4102 – Nuisance
- Rule 4601 – Architectural Coatings

### **Regulation VIII – Fugitive PM<sub>10</sub> Prohibition**

- Rule 8021 Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities
- Rule 8031 Bulk Materials
- Rule 8041 Carryout and Trackout
- Rule 8051 Open Areas
- Rule 8061 Paved And Unpaved Roads
- Rule 8071 Unpaved Vehicle/Equipment Traffic Areas

Pursuant to Rule 8021 Section 6.3, the proposed project would be required to develop, prepare, submit, obtain approval of and implement a Dust Control Plan.

### **Regulation IX – Mobile and Indirect Sources**

- Rule 9410 Employer Based Trip Reduction
- Rule 9510 Indirect Source Review

#### **Rule 9510 (Indirect Source Review)**

The Indirect Source Review (ISR) rule, which was adopted December 15, 2005, and went into effect March 1, 2006, requires developers of new residential, commercial, and some industrial projects to reduce NO<sub>x</sub> and PM<sub>10</sub> emissions generated by their projects. Pursuant to Rule 9510, the purpose of the ISR program is to reduce emissions of NO<sub>x</sub> and PM<sub>10</sub> from new land development projects. In general, development contributes to air pollution in the SJVAB increasing the number of vehicles and vehicle miles traveled. ISR applies to development projects that require discretionary approval from the lead agency. The ISR rule also applies to transportation and transit projects whose construction exhaust emissions would equal or exceed 2 tons per year of NO<sub>x</sub> or PM<sub>10</sub>. The ISR rule requires submittal of an Air Impact Assessment application no later than the date on which application is made for a final discretionary approval from the public agency. The Air Impact Assessment contains the information necessary to calculate both construction and operational emissions of a development project.

Section 6.0 of the ISR rule outlines general mitigation requirements for developments that include reduction in construction emissions of 20% of the total construction NO<sub>x</sub> emissions, and 45% of the total construction PM<sub>10</sub> exhaust emissions. The rule also requires the project to reduce operational NO<sub>x</sub> emissions by 33.3% and operational PM<sub>10</sub> emissions by 50%, as compared to the unmitigated baseline. Section 7.0 of the ISR rule includes fee schedules for construction or operational excess emissions of NO<sub>x</sub> or PM<sub>10</sub>—those emissions above the goals

identified in Section 6.0 of the rule. Monies collected from this fee are used by the SJVAPCD to fund emission reduction projects in the SJVAB on behalf of the project.

### Rule 9610 State Implementation Plan Credit for Emission Reductions Generated through Incentive Programs

Rule 9610 provides an administrative mechanism for the SJVAPCD to receive credit towards SIP requirements for emission reductions achieved in the SJVAB through incentive programs administered by the SJVAPCD, United States Department of Agriculture Natural Resources Conservation Service, or CARB. On April 9, 2015, EPA finalized a limited approval and limited disapproval (for a minor administrative error) of Rule 9610 as a revision to the California SIP. Additional documentation regarding the effectiveness of the SJVAPCD's incentive programs can be found in 2015 Annual Demonstration Report SIP Credit for Emission Reductions Generated Through Incentive Programs (SJVAPCD 2015c).

### San Joaquin Council of Governments

The San Joaquin Council of Governments (SJCOG) is the regional planning agency for San Joaquin County (County) and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SJCOG serves as the federally designated metropolitan planning organization (MPO) for the County. SJCOG has prepared the 2018 Regional Transportation Plan and Sustainable Communities Strategy (2018 RTP/SCS) for the region (SJCOG 2018).

The 2018 RTP/SCS emphasizes the need for local initiatives that can reduce the region's GHG emissions that contribute to climate change, an issue that is largely outside the focus of local attainment plans, which is assessed in Section 8 of the 2018 RTP/SCS. The 2018 RTP/SCS also emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

### City of Stockton Envision 2040 General Plan

Applicable air quality standards in the City's 2040 General Plan are contained within Chapter 5, Safety. The Safety Chapter contains specific goals, policies, and actions for reducing air quality and GHGs within the City. The following goals and policies are relevant to the proposed project.

Goal SAF-4: Clean Air. Improve local air quality.

Policy SAF-4.1. Reduce air impacts from mobile and stationary sources of air pollution.

Policy SAF-4.2. Encourage major employers to participate in a transportation demand management program (TDM) that reduces vehicle trips through approaches such as carpooling, vanpooling, shuttles, car-sharing, bike sharing, end-of-trip facilities like showers and bicycle parking, subscription bus service, transit subsidies, preferential parking, and telecommuting.

## 4.1.4 Impacts and Mitigation Measures

### Methods of Analysis

#### Construction

Emissions from the construction phase of the proposed project were estimated using CalEEMod Version 2022.1.5. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on CalEEMod default values as adjusted to more accurately reflect long-term buildout of the proposed project.

For purposes of estimating proposed project emissions, construction was assumed to start within approximately one year of entitlement approvals in Summer 2024, in which most of the project's construction activities would occur over an approximate five (5) to six (6) -year period, ending approximately around Summer 2030. Notably, assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years. Furthermore, it was assumed that Phase 5 would occur approximately 10 years later in 2040 over an approximate 18-month duration, which was estimated by CalEEMod and was based on the square footage to be developed as part of Phase 5 which is known as of the drafting of this analysis.

For the analysis, it was generally assumed that heavy construction equipment would be operating at the site for approximately eight (8) hours per day, five (5) days per week (22 days per month), during project construction. Construction activities include building demolition, site preparation, site grading, trenching for utilities and new building construction.

CalEEMod default values for acres graded, which is based on earth moving equipment assumptions, were applied. Haul trucks during demolition activities were based on the square footage of buildings/structures and/or pavement area to be demolished. Vendor trucks used during Demolition, Site Preparation, and Grading phases represent water trucks. All worker trip estimates are based on CalEEMod default values. Vendor trucks for each building construction phase were estimated based on CalEEMod assumptions for vendor trips rates and the square footage built for non-residential. Similarly, the interior and exterior square footage to be painted during each architectural coating phase was estimated based on CalEEMod assumptions for building surface area multiplier and fraction of interior or exterior surface area along with estimated square footage painted in that phase, which matches with the square footage built in the respective building construction phase. Asphalt pavement striping square footage is estimated based on the square footage of parking area and an assumption that 6% of the square footage would be painted, consistent with CalEEMod assumptions.

Tables 4.1-4 through 4.1-8 present the construction scenario assumptions used for estimating project-generated emissions in CalEEMod for the proposed project.

**Table 4.1-4. Phase 1 Construction Scenario Assumptions**

| Construction Phase  | Start Date | End Date  | One-Way Vehicle Trips      |                                  |                                | Equipment                 |          |             |
|---|------------|-----------|----------------------------|----------------------------------|--------------------------------|---------------------------|----------|-------------|
|   |            |           | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type            | Quantity | Usage Hours |
| Demolition  | 6/1/2024   | 2/15/2025 | 15                         | 4                                | 2                              | Concrete/Industrial Saws  | 1        | 8           |
|   |            |           |                            |                                  |                                | Excavators                | 3        | 8           |
|   |            |           |                            |                                  |                                | Rubber Tired Dozers       | 2        | 8           |
| Site Preparation  | 2/16/2025  | 3/2/2025  | 18                         | 4                                | 0                              | Rubber Tired Dozers       | 3        | 8           |
|   |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 4        | 8           |
| Grading   | 3/3/2025   | 3/31/2025 | 15                         | 4                                | 0                              | Excavators                | 1        | 8           |
|   |            |           |                            |                                  |                                | Graders                   | 1        | 8           |
|   |            |           |                            |                                  |                                | Rubber Tired Dozers       | 1        | 8           |
|   |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 3        | 8           |
| Building construction - temporary RT construction (interior renovations), caged storage, and temporary trailer construction | 1/2/2024   | 11/5/2024 | 88                         | 45                               | 0                              | Forklifts                 | 1        | 8           |
|   |            |           |                            |                                  |                                | Generator Sets            | 1        | 8           |
|   |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 1        | 7           |
|   |            |           |                            |                                  |                                | Welders                   | 1        | 8           |
| Utilities installation  | 9/23/2024  | 3/24/2025 | 3                          | 0                                | 0                              | Tractors/Loaders/Backhoes | 1        | 7           |

**Source:** See Appendix C for details.

Phase 1 involves demolishing existing buildings (approximately 75,700 square feet), including the Main Hospital building, McCloud Building, concrete block structure, landscaping storage building, classroom building, and existing residence.

**Table 4.1-5. Phase 2 Construction Scenario Assumptions**

| Construction Phase  | Start Date | End Date  | One-Way Vehicle Trips      |                                  |                                | Equipment                 |          |             |
|---|------------|-----------|----------------------------|----------------------------------|--------------------------------|---------------------------|----------|-------------|
|   |            |           | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type            | Quantity | Usage Hours |
| Site preparation  | 7/13/2024  | 7/27/2024 | 20                         | 4                                | 0                              | Rubber Tired Dozers       | 3        | 8           |
|   |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 4        | 8           |
|   |            |           |                            |                                  |                                | Drill Rig                 | 1        | 8           |
| Grading   | 7/28/2024  | 9/8/2024  | 20                         | 4                                | 0                              | Excavators                | 2        | 8           |
|   |            |           |                            |                                  |                                | Graders                   | 1        | 8           |
|   |            |           |                            |                                  |                                | Rubber Tired Dozers       | 1        | 8           |
|   |            |           |                            |                                  |                                | Scrapers                  | 2        | 8           |
|   |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 2        | 8           |
| Building construction - Parking Structure, dietary and trash dock, and Engineering building | 9/9/2024   | 10/6/2025 | 344                        | 131                              | 0                              | Cranes                    | 1        | 7           |
|   |            |           |                            |                                  |                                | Forklifts                 | 3        | 8           |
|   |            |           |                            |                                  |                                | Generator Sets            | 1        | 8           |
|   |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 3        | 7           |
|   |            |           |                            |                                  |                                | Welders                   | 1        | 8           |
| Demolition - existing engineering building  | 6/2/2025   | 7/21/2025 | 15                         | 4                                | 2                              | Concrete/Industrial Saws  | 1        | 8           |
|   |            |           |                            |                                  |                                | Excavators                | 3        | 8           |
|   |            |           |                            |                                  |                                | Rubber Tired Dozers       | 2        | 8           |
| Paving  | 10/7/2025  | 11/4/2025 | 8                          | 0                                | 0                              | Pavers                    | 1        | 8           |
|   |            |           |                            |                                  |                                | Paving Equipment          | 1        | 8           |
|   |            |           |                            |                                  |                                | Rollers                   | 1        | 8           |
| Architectural coating   | 10/7/2025  | 11/4/2025 | 69                         | 0                                | 0                              | Air compressors           | 1        | 6           |

**Source:** See Appendix C for details.

Phase 2 involves construction of the Parking Structure which would be up to 800,000 square feet, new engineering building, and new dietary dock. The existing engineering building, parking lot, asphalt surfaces would also be demolished.

**Table 4.1-6. Phase 3 Construction Scenario Assumptions**

| Construction Phase    | Start Date | End Date   | One-Way Vehicle Trips      |                                  |                                | Equipment                 |          |             |
|-----------------------|------------|------------|----------------------------|----------------------------------|--------------------------------|---------------------------|----------|-------------|
|                       |            |            | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type            | Quantity | Usage Hours |
| Grading               | 10/19/2025 | 11/16/2025 | 18                         | 4                                | 12                             | Excavators                | 1        | 8           |
|                       |            |            |                            |                                  |                                | Graders                   | 1        | 8           |
|                       |            |            |                            |                                  |                                | Rubber Tired Dozers       | 1        | 8           |
|                       |            |            |                            |                                  |                                | Tractors/Loaders/Backhoes | 3        | 8           |
|                       |            |            |                            |                                  |                                | Drill Rig                 | 1        | 8           |
| Building construction | 11/17/2025 | 11/13/2028 | 137                        | 67                               | 0                              | Cranes                    | 1        | 7           |
|                       |            |            |                            |                                  |                                | Forklifts                 | 3        | 8           |
|                       |            |            |                            |                                  |                                | Generator Sets            | 1        | 8           |
|                       |            |            |                            |                                  |                                | Tractors/Loaders/Backhoes | 3        | 7           |
|                       |            |            |                            |                                  |                                | Welders                   | 1        | 8           |
| Architectural coating | 11/14/2027 | 12/12/2028 | 8                          | 0                                | 0                              | Air compressors           | 1        | 6           |
| Paving                | 11/14/2028 | 12/12/2028 | 27                         | 0                                | 0                              | Pavers                    | 1        | 8           |
|                       |            |            |                            |                                  |                                | Paving Equipment          | 1        | 8           |
|                       |            |            |                            |                                  |                                | Rollers                   | 1        | 8           |

**Source:** See Appendix C for details.

Phase 3 includes construction of the 331,000 square foot Acute Care Hospital Tower building, 30,000 square foot Central Utility Plant (CUP), 3,500 square foot fuel tank yard, 3,500 square foot Generator building addition, and a two surface parking lots to accommodate up to 86 parking spaces. Furthermore, approximately 2,066 cubic yards of soil export would be needed for the basement of the new Acute Care Hospital Tower building.



**Table 4.1-7. Phase 4 Construction Scenario Assumptions**

| Construction Phase                          | Start Date | End Date   | One-Way Vehicle Trips      |                                  |                                | Equipment                 |          |             |
|---|------------|------------|----------------------------|----------------------------------|--------------------------------|---------------------------|----------|-------------|
|   |            |            | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type            | Quantity | Usage Hours |
| Demolition                                  | 11/27/2028 | 12/25/2028 | 10                         | 0                                | 25                             | Concrete/Industrial Saws  | 1        | 8           |
|   |            |            |                            |                                  |                                | Rubber Tired Dozers       | 1        | 1           |
|   |            |            |                            |                                  |                                | Tractors/Loaders/Backhoes | 2        | 6           |
| Facade improvements and interior renovation | 12/26/2028 | 7/31/2030  | 10                         | 2                                | 0                              | Cranes                    | 1        | 4           |
|   |            |            |                            |                                  |                                | Forklifts                 | 2        | 6           |
|   |            |            |                            |                                  |                                | Tractors/Loaders/Backhoes | 2        | 8           |

Source: See Appendix C for details.

Phase 4 would include demolition of the 4th floor of the north wing (5,408 square feet) and facade/interior improvements.

**Table 4.1-8. Phase 5 Construction Scenario Assumptions**

| Construction Phase | Start Date | End Date  | One-Way Vehicle Trips      |                                  |                                | Equipment                 |          |             |
|--------------------|------------|-----------|----------------------------|----------------------------------|--------------------------------|---------------------------|----------|-------------|
|                    |            |           | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type            | Quantity | Usage Hours |
| Demolition         | 5/7/2040   | 6/4/2040  | 15                         | 4                                | 2                              | Concrete/Industrial Saws  | 1        | 8           |
|                    |            |           |                            |                                  |                                | Excavators                | 3        | 8           |
|                    |            |           |                            |                                  |                                | Rubber Tired Dozers       | 2        | 8           |
| Site preparation   | 6/5/2040   | 6/19/2040 | 20                         | 4                                | 0                              | Rubber Tired Dozers       | 3        | 8           |
|                    |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 4        | 8           |
|                    |            |           |                            |                                  |                                | Drill Rig                 | 1        | 8           |

**Table 4.1-8. Phase 5 Construction Scenario Assumptions**

| Construction Phase    | Start Date | End Date  | One-Way Vehicle Trips      |                                  |                                | Equipment                 |          |             |
|-----------------------|------------|-----------|----------------------------|----------------------------------|--------------------------------|---------------------------|----------|-------------|
|                       |            |           | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type            | Quantity | Usage Hours |
| Grading               | 6/20/2040  | 7/18/2040 | 15                         | 4                                | 0                              | Excavators                | 1        | 8           |
|                       |            |           |                            |                                  |                                | Graders                   | 1        | 8           |
|                       |            |           |                            |                                  |                                | Rubber Tired Dozers       | 1        | 8           |
|                       |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 3        | 8           |
| Building construction | 7/19/2040  | 1/23/2042 | 48                         | 25                               | 0                              | Cranes                    | 1        | 7           |
|                       |            |           |                            |                                  |                                | Forklifts                 | 3        | 8           |
|                       |            |           |                            |                                  |                                | Generator Sets            | 1        | 8           |
|                       |            |           |                            |                                  |                                | Tractors/Loaders/Backhoes | 3        | 7           |
|                       |            |           |                            |                                  |                                | Welders                   | 1        | 8           |

**Source:** See Appendix C for details.

Phase 5 includes development of the 150,000 square foot expansion to the Acute Care Hospital Tower building and demolition of up to 70 surface parking spaces.

## Operation

Emissions from the operational phase of the proposed project were estimated using CalEEMod Version 2022.1.5. Year 2042 was assumed as the first full year of operations after completion of construction. Emissions from the existing land uses (existing scenario), which includes 75,068 square feet of medical buildings to be demolished and a single-family residence, were also estimated using CalEEMod to present the net change in criteria air pollutant emissions. Operational year 2022 was assumed for the existing scenario.

## Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product VOC emissions for the buildings are estimated in CalEEMod based on the floor area of buildings and on the default factor of pounds of VOC per building square foot per day. Consumer products associated with the parking lot and other asphalt surfaces include degreasers, which were estimated based on the square footage of the parking lot and the default factor of pounds of VOC per square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emissions factor is based on the VOC content of the surface coatings, and SJVACPD Rule 4601 (Architectural Coatings) governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories. The proposed project would use architectural coatings that would not exceed 100 grams per liter for interior applications and 150 grams per liter for exterior applications consistent with SJVACPD Rule 4601. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2022).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

For the existing scenario, default CalEEMod values were applied for hearths (for the on-site single-family residence), consumer products, reapplication of architectural coating, and landscape maintenance.

### Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site.

The energy use from nonresidential land uses (natural gas usage per square foot per year) is calculated in CalEEMod based on the California Commercial End-Use Survey database and the energy use from residential land uses is calculated in CalEEMod based on the Residential Appliance Saturation Study. The current version of CalEEMod assumes compliance with the 2019 Title 24 Building Energy Efficiency Standards (CAPCOA 2022). However, buildout of the proposed project would be required to comply with the 2022 Title 24 Standards at a minimum or the more stringent energy code at the time of construction.

For the existing scenario, default CalEEMod values were applied assuming historical energy use, which in CalEEMod reflects 2005 energy assumptions.

### Stationary Sources

The proposed project would include a total of two 10.5-million British thermal unit per hour (MMBtu/hr) natural gas boilers and two 6.7-MMBtu/hr natural gas heaters using a total of 967,901 therms/year. CalEEMod was used to quantify criteria pollutant emissions from the proposed CUP equipment. Furthermore, the proposed project would operate two, 2,000-kilowatt (kW) emergency generators and 52,800 gallons of stored fuel. The emergency generators were assumed to be tested for 1 hour per day and 50 hours per year. CalEEMod was used to estimate emissions from the emergency generators testing and maintenance. EPA TANKS 4.0.9d was used to estimate emissions from the diesel fuel storage tanks.

### Mobile Sources

Mobile sources for the proposed project would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the project site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. The anticipated trip generation, including the trip rates and total trips, are based on the proposed project's Transportation Technical Memorandum. Specifically, the proposed project would generate 4,330 trips per day, as provided in Transportation Technical Memorandum (Appendix I). CalEEMod default data, including temperature, trip characteristics, variable start information, emissions factors, were conservatively used for the model inputs to estimate daily emissions from proposed vehicular sources. Proposed project-related traffic was assumed to include a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for 2042 were used to estimate emissions associated with full buildout of the proposed project.

For the existing baseline scenario, year 2022 and values from the Transportation Technical Memorandum for existing uses were assumed. Per the Transportation Technical Memorandum, the existing medical buildings to be demolished (approximately 75,700 square feet of buildings) and the single-family residence generate approximately 817 trips per day.

## Helicopters

As described in Chapter 2, Project Description, additional heliports (in addition to the existing heliport) are proposed to enable helicopters to transport patients. Associated emissions for additional helicopter trips were calculated using the Federal Office of Civil Aviation emission factors for jet fuel. Emissions from helicopter use were estimated based on the estimated number of landing and takeoff cycles, number of cruising hours per day, and helicopter engine model type. It was assumed that the proposed project would include up to approximately 15 helicopter trips per month. Energy-related emissions associated with diesel fuel were estimated using utility-specific and Federal Office of Civil Aviation emission factors.

## Construction Health Risk Assessment

The greatest potential for TAC emissions during project construction would be DPM emissions from heavy equipment operations and heavy-duty trucks. As a precautionary measure, a HRA was performed to assess the impact of construction on sensitive receptors proximate to the project site. A construction HRA was performed to evaluate the potential impact to existing off-site receptors as a result of construction of the project. For risk assessment purposes, PM<sub>10</sub> in diesel exhaust is considered a proxy for DPM.<sup>5</sup> Complete model results for the construction HRA are included as Appendix C2.

The construction HRA applies the methodologies prescribed in the OEHHA document, Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments (OEHHA Guidelines) (OEHHA 2015). Cancer risk parameters, such as age-sensitivity factors, daily breathing rates, exposure period, fraction of time at home, and cancer potency factors were based on the values and data recommended by OEHHA and are implemented in the Hotspots Analysis and Reporting Program Version 2 (HARP2), which was used to estimate the health risk from construction activities.

For short-term construction, a dispersion modeling analysis was conducted of DPM emitted from diesel vehicles and construction equipment on the proposed project site for the HRA to assess the health risk impacts of the project's construction on proximate off-site sensitive receptors. Additionally, a separate dispersion modeling analysis was conducted of TACs emitted by the natural gas emergency generators to be located at the project. The dispersion modeling was performed using the AERMOD Version 21112, which is the model EPA approved and SJVAPCD recommends for atmospheric dispersion of emissions. AERMOD is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources, building downwash, and simple and complex terrain. Principal parameters of AERMOD for the project included the following:

- **Dispersion Model:** The air dispersion model used was AERMOD, Version 21112, with the Lakes Environmental Software implementation/user interface, AERMOD View, Version 10.2.1. Under the construction scenario, a unit emission rate (1 gram per second [g/s]) was normalized over the line of adjacent volume sources for the AERMOD run to obtain the “X/Q” values. Under the operational scenario, AERMOD was run with each source emitting unit emissions (1 g/s) to obtain the “X/Q” values. X/Q is a dispersion factor that is the average effluent concentration normalized by source strength, and is used as

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<sup>5</sup> Under California regulatory guidelines, DPM is used as a surrogate measure of carcinogen exposure for the mixture of chemicals that make up diesel exhaust as a whole. CalEPA is a proponent of using the surrogate approach to quantifying cancer risks associated with diesel exhaust over a component-based approach, which involves estimating risks for each of the individual components of a mixture. CalEPA has concluded that “potential cancer risk from inhalation exposure to whole diesel exhaust will outweigh the multi-pathway cancer risk from the speciated components” (OEHHA 2003).

a way to simplify the representation of emissions from many sources. The maximum concentrations were determined for the 1-hour and Period (used for calculating long-term health risks) averaging periods.

- **Meteorological Data:** The latest 5-year meteorological data (years 2013-2017) for the Stockton Metropolitan Airport were provided by SJVAPCD, and then input to AERMOD.
- **Urban and Rural Options:** Typically, urban areas have more surface roughness and structures and low-albedo surfaces that absorb more sunlight, and thus, more heat, relative to rural areas. The urban dispersion option was selected and the San Joaquin County population for year 2020 (779,223 persons) input into AERMOD.
- **Terrain Characteristics:** Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate. The National Elevation Dataset (NED) dataset with resolution of 1 arc-second was used.
- **Sensitive Receptors:** This HRA evaluates the risk to existing residential receptors located in proximity to the proposed project. A uniform fine 1-kilometer by 1-kilometer Cartesian grid with 20-meter spacing was centered over the project site and converted into discrete receptors to capture the maximum risk.
- **Source Release Construction Scenario:** Air dispersion modeling of DPM emissions was conducted assuming the equipment would operate in accordance with the modeling scenario estimated in CalEEMod. The construction equipment DPM emissions were modeled as a line of adjacent volume sources across the project site to represent project construction with a release height of 5 meters, plume height of 10 meters, and plume width of 9 meters. Construction equipment would operate up to 8 hours per day.

Plot files generated in AERMOD were then imported into CARB's HARP2, with ground level concentrations determined by multiplication of emission rates and X/Q values for each individual source of emissions. HARP2 then assessed resulting cancer and noncancer risk at the existing receptors from exposure to TAC emissions, in accordance with the OEHHA's *Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments 2015* (2015 Risk Assessment Guidelines Manual; OEHHA 2015).

### Operation Health Risk Assessment

A dispersion modeling analysis was conducted of TACs emitted by point source exhaust stacks to be located at the proposed new CUP. The dispersion modeling was performed using AERMOD Version 21112, which is the model EPA approved and SJVAPCD recommends for atmospheric dispersion of emissions. AERMOD is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources, building downwash, and simple and complex terrain. Principal parameters of AERMOD for the project operations includes the parameters listed above under the Construction Health Risk Assessment. However, the source release operation scenario and stationary source parameters are presented herein.

- **Source Release Operating Scenarios:** Air dispersion modeling of operational activities was conducted using 100% rated loads at anticipated annual capacity factors based on the 24-hour operation of all sources (i.e., variable emissions were not assumed in AERMOD). Table 4.1-9 shows the stationary source release characteristics used in the AERMOD model. Notably, the CUP equipment would be located in a building and the boilers and generator stacks was assumed to have flappers (modeled as vertical point sources).



**Table 4.1-9. New CUP Stationary Sources - Parameters for HRA**

| Emission Source                  | Quantity | Stack Release Height (m) | Stack Diameter (m) | Gas Exit Temperature (degrees F) | Stack Flow Rate (m/s) |
|----------------------------------|----------|--------------------------|--------------------|----------------------------------|-----------------------|
| 2,000-kW Emergency Generator     | 2        | 6.09                     | 0.61               | 752.80                           | 24.73                 |
| 10.5-MMBtu/hr Natural Gas Boiler | 2        | 6.09                     | 0.30               | 200.01                           | 17.53                 |
| 6.7-MMBtu/hr Natural Gas Heater  | 2        | 6.09                     | 0.30               | 200.01                           | 11.18                 |

Source: Appendix J.

Notes: CUP = central utilities plant; HRA = health risk assessment; kW = kilowatts; MMBtu/hr = million British thermal unit per hour.

### Thresholds of Significance

A significant impact would occur if development of the proposed project would do any of the following:

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

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the project would have a significant impact on air quality.

### San Joaquin Valley Air Pollution Control District

Table 4.1-10, San Joaquin Valley Air Pollution Control District Significance Thresholds for Criteria Pollutants, presents the emissions-based thresholds developed in the SJVAPCD GAMAQI (SJVAPCD 2015a). These include significance thresholds for construction emissions and operational permitted and non-permitted equipment and activities. The GAMAQI recommends evaluating impact significance for these categories separately. These thresholds of significance are based on a calendar-year basis, although construction emissions are assessed on a rolling 12-month period.

**Table 4.1-10. San Joaquin Valley Air Pollution Control District Significance Thresholds for Criteria Pollutants**

| Pollutant       | Construction Emissions (tons per year) | Operational Emissions (tons per year) |  |
|-----------------|--|---------------------------------------|--|
|                 |  | Permitted Equipment and Activities    | Non-Permitted Equipment and Activities |
| ROG             | 10                                     | 10                                    | 10                                     |
| NO <sub>x</sub> | 10                                     | 10                                    | 10                                     |
| CO              | 100                                    | 100                                   | 100                                    |

**Table 4.1-10. San Joaquin Valley Air Pollution Control District Significance Thresholds for Criteria Pollutants**

| Pollutant         | Construction Emissions (tons per year) | Operational Emissions (tons per year) |  |
|-------------------|--|---------------------------------------|--|
|                   |  | Permitted Equipment and Activities    | Non-Permitted Equipment and Activities |
| SO <sub>x</sub>   | 27                                     | 27                                    | 27                                     |
| PM <sub>10</sub>  | 15                                     | 15                                    | 15                                     |
| PM <sub>2.5</sub> | 15                                     | 15                                    | 15                                     |

Source: SJVAPCD 2015a.

In addition to the annual emissions mass thresholds described in Table 4.1-12, the SJVAPCD has also established screening criteria to determine whether a project would result in a CO hotspot at affected roadway intersections (SJVAPCD 2015a). If neither of the following criteria are met at any of the intersections affected by the project, the project would result in no potential to create a violation of the CO standard:

- A traffic study for the project indicates that the LOS on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F.
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at one or more intersections in the project vicinity.

### Toxic Air Contaminants

The SJVAPCD has established thresholds of significance for combined TAC emissions from the operations of both permitted and non-permitted sources (SJVAPCD 2015a). Projects that have the potential to expose the public to TACs in excess of the following thresholds would be considered to have a significant air quality impact:

- Probability of contracting cancer for the maximally exposed individual equals or exceeds 20 in 1 million people.<sup>6</sup>
- Hazard Index<sup>7</sup> for acute and chronic noncarcinogenic TACs equals or exceeds 1 for the maximally exposed individual.

### Odors

As described in the GAMAQI, due to the subjective nature of odor impacts, there are no quantitative thresholds to determine if potential odors would have a significant impact (SJVAPCD 2015a). Projects must be assessed for odor impacts on a case-by-case basis for the following two situations:

- Generators: Projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate.

<sup>6</sup> The cancer risk threshold was increased from 10 to 20 in 1 million with approval of APR 1906 (Framework for Performing Health Risk Assessments) on June 30, 2015.

<sup>7</sup> Non-cancer adverse health impact, both for acute (short-term) and chronic (long-term) health effects, is measured against a hazard index, which is defined as the ratio of the predicted incremental exposure concentration from the project to a published reference exposure level that could cause adverse health effects as established by the Office of Environmental Health Hazard Assessment. The ratio (referred to as the hazard quotient) of each noncarcinogenic substance that affects a certain organ system is added together to produce an overall hazard index for that organ system.

- Receivers: Residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

## Project Impacts

Impact 4.1-1      **The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.**

A project is non-conforming with an air quality plan if it conflicts with or delays implementation of any applicable attainment or maintenance plan. The SJVAPCD has prepared plans to attain federal and state O<sub>3</sub> and particulate matter ambient air quality standards as required under the federal and California Clean Air Act, as detailed in the Regulatory Section above. The SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on SJVAPCD New Source Review offset requirements for stationary sources. Stationary sources in the SJVAPCD jurisdiction are subject to some of the most stringent regulatory requirements in the nation. Emission reductions achieved through implementation of SJVAPCD offset requirements are a major component of the SJVAPCD's air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the SJVAPCD's air quality plan (SJVAPCD 2015a). As discussed in Impact 4.1-2, emissions from criteria pollutants during construction would not exceed the SJVAPCD significance thresholds. During the long-term operational phase, the proposed project would result in a net increase in emissions although, as discussed in Impact 4.1-2, the increase in emissions would not exceed any significance threshold or violate any SJVAPCD rule or regulation. Therefore, the proposed project would not conflict with the SJVAPCD's air quality plans and the impact would be **less than significant**.

## Mitigation Measures

None required.

Impact 4.1-2      **The proposed project would not 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.**

## Construction Emissions

Construction of the proposed project would temporarily generate ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions that would result in short-term impacts on ambient air quality in the area. Emissions would originate from mobile and stationary construction equipment exhaust, on-road vehicle (workers and trucks) exhaust, dust from building demolition and site clearing, and exposed soils eroded by wind. Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content. On-site sources of criteria air pollutant emissions would include off-road equipment and fugitive dust, and off-site sources would include hauling and vendor trucks and worker vehicles. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The proposed project would be required to comply with SJVAPCD Regulation VIII (Fugitive PM<sub>10</sub> Prohibition) by law, which specifies standard construction practices to reduce fugitive dust emissions. Pursuant to Regulation VIII, Rule 8021, Section 6.3, the proposed project would be required to develop, prepare, submit, obtain approval of, and implement a dust control plan, which would reduce fugitive dust impacts to less than significant for proposed project construction.

As discussed in the Methods of Analysis above, criteria air pollutant emissions associated with temporary construction activity were quantified using CalEEMod. Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by the applicant and is intended to represent a reasonable scenario based on the best information available. Default values provided in CalEEMod were used where detailed proposed project information was not available. Table 4.1-11 presents the estimated maximum annual construction emissions generated during construction of the proposed project. Details of the emission calculations are provided in Appendix C.

**Table 4.1-11. Estimated Annual Construction Criteria Air Pollutant Emissions**

| Year <sup>1</sup>                         | ROG           | NO <sub>x</sub> | CO   | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|---|---------------|-----------------|------|-----------------|------------------|-------------------|
|   | Tons per year |                 |      |                 |                  |                   |
| <b>Phases 1- 4</b>                        |               |                 |      |                 |                  |                   |
| 2024                                      | 0.50          | 4.19            | 4.76 | 0.00            | 0.60             | 0.27              |
| 2025                                      | 0.66          | 3.20            | 4.62 | 0.01            | 0.79             | 0.33              |
| 2026                                      | 0.20          | 1.61            | 2.40 | <0.005          | 0.24             | 0.10              |
| 2027                                      | 0.20          | 1.59            | 2.44 | <0.005          | 0.24             | 0.09              |
| 2028                                      | 1.08          | 1.74            | 2.75 | 0.00            | 0.24             | 0.09              |
| 2029                                      | 0.06          | 0.54            | 0.91 | <0.005          | 0.02             | 0.02              |
| 2030                                      | 0.03          | 0.31            | 0.53 | <0.005          | 0.01             | 0.01              |
| <b>Phase 5</b>                            |               |                 |      |                 |                  |                   |
| 2040                                      | 0.09          | 0.74            | 1.21 | <0.005          | 0.13             | 0.06              |
| 2041                                      | 0.11          | 0.94            | 1.76 | <0.005          | 0.09             | 0.04              |
| 2042                                      | 0.01          | 0.06            | 0.11 | <0.005          | 0.01             | <0.005            |
| <b>Total Annual Emissions<sup>1</sup></b> |               |                 |      |                 |                  |                   |
| <i>SJVAPCD Threshold</i>                  | 10            | 10              | 100  | 27              | 15               | 15                |
| <b>Threshold Exceeded?</b>                | No            | No              | No   | No              | No               | No                |

**Source:** Appendix C for complete results.

**Notes:** CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter; SJVAPCD = San Joaquin Valley Air Pollution Control District; SO<sub>x</sub> = sulfur oxides; ROG = reactive organic gases; <0.005 = reported value less than 0.005.

<sup>1</sup> Total emissions reflect a rolling twelve month total.

Maximum annual emissions of ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions during construction as a result of off-road equipment operation, vendor and haul trucks, and worker vehicles would not exceed the SJVAPCD annual significance thresholds for ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> during construction. Therefore, construction emissions for the proposed project would be **less than significant**.

The proposed project would comply with SJVAPCD Rule 8021 to control fugitive dust emissions generated during grading activities, which would be required as a condition of approval. Standard construction practices that would be employed to reduce fugitive dust emissions include the following:

- Develop a dust control plan to outline how the project will comply with Rule 8021 and minimize fugitive dust during construction
- Minimize any cleanup track-out onto paved roads
- Cover haul trucks
- Rapid cleanup of project-related trackout or spills on paved roads

- Minimize grading and soil movement when winds exceed 30 miles per hour
- Implement a speed limit of 15 miles per hour during all construction phases for vehicles travelling on unpaved roads

As recommended by the GAMAQI (SJVAPCD 2015a), an ambient air quality impacts assessment is not required for this proposed project because construction would not generate on-site emissions of more than 100 pound per day for any pollutant, as shown in Table 4.1-12. Summary tables of annual and daily emissions associated with construction are included in Appendix C.

**Table 4.1-12. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions**

| Year <sup>1</sup>          | ROG            | NO <sub>x</sub> | CO    | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|----------------------------|----------------|-----------------|-------|-----------------|------------------|-------------------|
|                            | Pounds per day |                 |       |                 |                  |                   |
| <b>Phases 1- 4</b>         |                |                 |       |                 |                  |                   |
| <b>Summer Emissions</b>    |                |                 |       |                 |                  |                   |
| 2024                       | 5.36           | 52.20           | 84.10 | 0.15            | 23.29            | 12.31             |
| 2025                       | 3.60           | 34.20           | 33.90 | 0.06            | 1.64             | 1.29              |
| 2026                       | 1.10           | 10.60           | 13.40 | 0.02            | 0.39             | 0.35              |
| 2027                       | 1.06           | 10.10           | 13.40 | 0.02            | 0.35             | 0.31              |
| 2028                       | 1.37           | 12.90           | 18.40 | 0.03            | 0.44             | 0.40              |
| 2029                       | 0.45           | 4.13            | 6.91  | 0.01            | 0.14             | 0.13              |
| 2030                       | 0.44           | 4.03            | 6.90  | 0.01            | 0.13             | 0.12              |
| <b>Winter Emissions</b>    |                |                 |       |                 |                  |                   |
| 2024                       | 2.78           | 27.00           | 62.10 | 0.11            | 2.42             | 1.08              |
| 2025                       | 23.93          | 39.52           | 72.90 | 0.12            | 16.47            | 8.82              |
| 2026                       | 1.10           | 10.60           | 13.50 | 0.02            | 0.39             | 0.35              |
| 2027                       | 1.44           | 13.60           | 18.40 | 0.03            | 0.50             | 0.45              |
| 2028                       | 82.66          | 17.32           | 25.32 | 0.04            | 0.81             | 0.54              |
| 2029                       | 0.45           | 4.13            | 6.91  | 0.01            | 0.14             | 0.13              |
| 2030                       | 0.44           | 4.03            | 6.90  | 0.01            | 0.13             | 0.12              |
| <b>Phase 5</b>             |                |                 |       |                 |                  |                   |
| <b>Summer Emissions</b>    |                |                 |       |                 |                  |                   |
| 2040                       | 2.25           | 17.00           | 22.30 | 0.05            | 20.20            | 10.60             |
| 2041                       | 0.81           | 6.87            | 12.50 | 0.02            | 0.14             | 0.13              |
| 2042                       | 0.00           | 0.00            | 0.00  | 0.00            | 0.00             | 0.00              |
| <b>Winter Emissions</b>    |                |                 |       |                 |                  |                   |
| 2040                       | 0.81           | 6.94            | 12.60 | 0.02            | 0.15             | 0.13              |
| 2041                       | 0.80           | 6.88            | 12.50 | 0.02            | 0.14             | 0.13              |
| 2042                       | 0.80           | 6.84            | 12.50 | 0.02            | 0.14             | 0.13              |
| <i>SJVAPCD Threshold</i>   | 100            | 100             | 100   | 100             | 100              | 100               |
| <b>Threshold Exceeded?</b> | No             | No              | No    | No              | No               | No                |

Source: Appendix C for complete results.

Notes: CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter; SJVAPCD = San Joaquin Valley Air Pollution Control District; SO<sub>x</sub> = sulfur oxides; ROG = reactive organic gases.

## Operational Emissions

The proposed project involves Phases 1–4, which would include building and site demolition, site preparation, temporary re-location of support services and parking, construction of the new Acute Care Hospital Tower, related support buildings, and the new Parking Structure. Operation of the proposed project would generate ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from mobile sources, energy sources from natural gas usage; area sources, including the use of landscaping equipment and consumer products, from architectural coatings, helicopters, and stationary sources (e.g., boilers and emergency generators). As discussed in the Methods of Analysis above, pollutant emissions associated with long-term operations were quantified using CalEEMod using a combination of project-specific information and CalEEMod default values.

Table 4.1-13 presents the maximum daily area, energy, and mobile source emissions associated with proposed project operation (year 2042). Details of the emission calculations are provided in Appendix C.

**Table 4.1-13. Estimated Annual Operational Criteria Air Pollutant Emissions**

| Year  | ROG           | NO <sub>x</sub> | CO           | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|---|---------------|-----------------|--------------|-----------------|------------------|-------------------|
|   | Tons per year |                 |              |                 |                  |                   |
| <b>Existing Scenario</b>                        |               |                 |              |                 |                  |                   |
| Area  | 0.59          | 0.62            | 4.22         | 0.01            | 0.27             | 0.06              |
| Energy  | 0.44          | <0.005          | 0.37         | <0.005          | 0.00             | 0.00              |
| Mobile  | <0.005        | 0.01            | 0.01         | <0.005          | 0.00             | 0.00              |
| Stationary                                      | 0.20          | 0.00            | 3.62         | 0.02            | 0.28             | 0.28              |
| <b>Existing -Total</b>                          | <b>1.23</b>   | <b>0.63</b>     | <b>8.22</b>  | <b>0.03</b>     | <b>0.55</b>      | <b>0.34</b>       |
| <b>Proposed Project</b>                         |               |                 |              |                 |                  |                   |
| Area  | 1.30          | 1.00            | 8.39         | 0.02            | 0.98             | 0.19              |
| Energy  | 3.02          | 0.04            | 5.16         | <0.005          | 0.01             | 0.01              |
| Mobile  | 0.09          | 1.64            | 1.38         | 0.01            | 0.12             | 0.12              |
| Helicopters                                     | 0.59          | 0.88            | 0.66         | 0.00            | 0.01             | 0.00              |
| Stationary                                      | 0.59          | 0.98            | 7.23         | 0.04            | 0.55             | 0.55              |
| <b>Proposed Project - Total</b>                 | <b>5.59</b>   | <b>4.54</b>     | <b>22.82</b> | <b>0.07</b>     | <b>1.67</b>      | <b>0.87</b>       |
| <b>Net Change</b>                               |               |                 |              |                 |                  |                   |
| <b>Net Change (Proposed Project – Existing)</b> | <b>4.36</b>   | <b>3.91</b>     | <b>14.60</b> | <b>0.04</b>     | <b>1.12</b>      | <b>0.53</b>       |
| <i>SJVAPCD Threshold</i>                        | <i>10</i>     | <i>10</i>       | <i>100</i>   | <i>27</i>       | <i>15</i>        | <i>15</i>         |
| <b>Threshold Exceeded?</b>                      | No            | No              | No           | No              | No               | No                |

**Source:** Appendix C for complete results.

**Notes:** CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter; SJVAPCD = San Joaquin Valley Air Pollution Control District; SO<sub>x</sub> = sulfur oxides; ROG = reactive organic gases; <0.005 = reported value less than 0.005.

As recommended by the GAMAQI (SJVAPCD 2015a), an ambient air quality impacts assessment is not required for this proposed project because on-site operations would not generate on-site emissions of more than 100 pounds per day for any pollutant, as shown in Table 4.1-14. Summary tables of annual and daily emissions associated with construction are included in Appendix C.



**Table 4.1-14. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions**

| Year   | ROG            | NO <sub>x</sub> | CO            | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|--|----------------|-----------------|---------------|-----------------|------------------|-------------------|
|  | Pounds per day |                 |               |                 |                  |                   |
| <b>Existing Scenario</b>                                   |                |                 |               |                 |                  |                   |
| <b>Summer Emissions</b>                                    |                |                 |               |                 |                  |                   |
| Mobile   | 3.24           | 0.97            | 6.93          | <0.005          | 0.06             | 0.02              |
| Area   | 2.76           | 0.05            | 4.20          | <0.005          | 0.04             | 0.04              |
| Energy   | <0.005         | 0.06            | 0.05          | <0.005          | <0.005           | <0.005            |
| Stationary   | 1.11           | 0.00            | 19.80         | 0.12            | 1.54             | 1.54              |
| <b>Existing - Summer Total</b>                             | <b>7.11</b>    | <b>1.08</b>     | <b>30.98</b>  | <b>0.12</b>     | <b>1.64</b>      | <b>1.60</b>       |
| <b>Winter Emissions</b>                                    |                |                 |               |                 |                  |                   |
| Mobile   | 2.85           | 1.12            | 9.66          | <0.005          | 0.06             | 0.02              |
| Area   | 2.11           | 0.01            | 0.23          | <0.005          | 0.03             | 0.03              |
| Energy   | <0.005         | 0.06            | 0.05          | <0.005          | <0.005           | <0.005            |
| Stationary   | 1.11           | 0.00            | 19.80         | 0.12            | 1.54             | 1.54              |
| <b>Existing - Winter Total</b>                             | <b>6.07</b>    | <b>1.19</b>     | <b>29.74</b>  | <b>0.12</b>     | <b>1.63</b>      | <b>1.59</b>       |
| <b>Proposed Project</b>                                    |                |                 |               |                 |                  |                   |
| <b>Summer Emissions</b>                                    |                |                 |               |                 |                  |                   |
| Mobile   | 7.46           | 3.13            | 17.40         | 0.01            | 0.32             | 0.07              |
| Area   | 11.90          | 0.00            | 0.00          | 0.00            | 0.00             | 0.00              |
| Energy   | 0.49           | 8.98            | 7.54          | 0.05            | 0.68             | 0.68              |
| Helicopters  | 6.51           | 9.96            | 8.03          | 0.00            | 0.29             | 0.00              |
| Stationary   | 11.00          | 39.40           | 62.10         | 0.29            | 4.37             | 4.37              |
| <b>Proposed Project - Summer Total</b>                     | <b>37.36</b>   | <b>61.47</b>    | <b>95.07</b>  | <b>0.35</b>     | <b>5.66</b>      | <b>5.12</b>       |
| <b>Winter Emissions</b>                                    |                |                 |               |                 |                  |                   |
| Mobile   | 7.08           | 3.56            | 23.40         | 0.01            | 0.32             | 0.07              |
| Area   | 11.90          | 0.00            | 0.00          | 0.00            | 0.00             | 0.00              |
| Energy   | 0.49           | 8.98            | 7.54          | 0.05            | 0.68             | 0.68              |
| Helicopters  | 6.51           | 9.96            | 8.03          | 0.00            | 0.29             | 0.00              |
| Stationary   | 11.00          | 39.40           | 62.10         | 0.29            | 4.37             | 4.37              |
| <b>Proposed Project - Winter Total</b>                     | <b>36.98</b>   | <b>61.90</b>    | <b>101.07</b> | <b>0.35</b>     | <b>5.66</b>      | <b>5.12</b>       |
| <b>Net Change</b>  |                |                 |               |                 |                  |                   |
| <b>Net Change – Summer - (Proposed Project – Existing)</b> | <b>30.25</b>   | <b>60.39</b>    | <b>64.09</b>  | <b>0.23</b>     | <b>4.02</b>      | <b>3.52</b>       |
| <b>Net Change – Winter - (Proposed Project – Existing)</b> | <b>30.91</b>   | <b>60.71</b>    | <b>71.33</b>  | <b>0.23</b>     | <b>4.03</b>      | <b>3.53</b>       |
| <i>SJVAPCD Threshold</i>                                   | <i>100</i>     | <i>100</i>      | <i>100</i>    | <i>27</i>       | <i>15</i>        | <i>15</i>         |
| <b>Threshold Exceeded?</b>                                 | No             | No              | No            | No              | No               | No                |

Source: Appendix C for complete results.

Notes: CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter; SJVAPCD = San Joaquin Valley Air Pollution Control District; SO<sub>x</sub> = sulfur oxides; ROG = reactive organic gases; <0.005 = reported value less than 0.005.

For purposes of this air quality analysis and consistent with SJVAPCD guidance documents, actions that exceed criteria pollutant NAAQS (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors while outdoors and secondary standards designed to safeguard human welfare) or the EPA's Prevention of Significant Deterioration Significant Impact Levels would result in significant impacts. Additionally, actions that violate CAAQS developed by CARB are considered significant.

Determination of whether proposed project emissions would violate any ambient air quality standard is largely a function of air quality dispersion modeling. The SJVAPCD recommends that an ambient air quality analysis be performed when emissions of any criteria pollutant would equal or exceed any applicable threshold of significance for criteria pollutants or 100 pounds per day of any criteria pollutant. If the impacts resulting from a project's emissions would not exceed the CAAQS and NAAQS at the proposed project's property boundaries, the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation (SJVAPCD 2015a). The CAAQS and NAAQS are shown in Table 4.1-3. The CalEEMod modeling shows that the increases from on-site project construction and operations are not expected to generate air pollutant emissions that exceed 100 pounds per day; therefore, an air quality dispersion modeling assessment is not required and the AAQS would not be exceeded as a result of proposed project construction.

The SJVAB is a nonattainment area for O<sub>3</sub> and PM<sub>2.5</sub> under the NAAQS and/or CAAQS and nonattainment for PM<sub>10</sub> under CAAQS. The poor air quality in the SJVAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., ROG and NO<sub>x</sub> for O<sub>3</sub>) potentially contribute to poor air quality. However, because the annual construction and operational emissions associated with the proposed project would not exceed the SJVAPCD significance thresholds for criteria pollutants, the proposed project would result in a less-than-significant increase in emissions of nonattainment criteria pollutants, and thus the construction and operational emissions would not be cumulatively considerable. Furthermore, the proposed project would not conflict with the SJVAPCD Ozone Attainment Plans, or the PM<sub>10</sub> or PM<sub>2.5</sub> Attainment Plan, which address the cumulative emissions in the SJVAB and account for emissions associated with construction activity in the SJVAB. Based on these considerations, the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment criteria pollutants. Impacts would be **less than significant**.

### Mitigation Measures

None required.

Impact 4.1-3      **The proposed project could expose sensitive receptors to substantial pollutant concentrations.**

### Health Effects of Toxic Air Contaminants

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or hazardous air pollutants. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and has adopted appropriate control measures for sources of these TACs. The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (13 CCR 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SJVAPCD recommends an incremental cancer risk threshold of 20 in a million (SJVAPCD 2015a). “Incremental cancer risk” is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard OEHHA risk-assessment methodology.

“Incremental cancer risk” is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard OEHHA risk-assessment methodology (OEHHA 2015). In addition, some TACs have noncarcinogenic effects.

Construction Health Risk

Although construction activities of the proposed project are short-term and variable, in an abundance of caution and to provide information disclosure, a construction HRA was performed for the proposed project to evaluate the risk from diesel exhaust emissions on existing proximate off-site sensitive receptors, as well as future on-site residences. The HRA methodology was described above under the Methods of Analysis and a detailed assessment is provided in Appendix C. Table 4.1-15 summarizes the results of the HRA for the project’s construction activities.

**Table 4.1-15. Summary of Maximum Cancer and Chronic Health Risks - Unmitigated**

| Impact Analysis                              | Impact Parameter     | Units       | Project Impact | SJVAPCD Threshold | Level of Significance   |
|--|----------------------|-------------|----------------|-------------------|-------------------------|
| <b>Maximally Exposed Individual Resident</b> |                      |             |                |                   |                         |
| Construction HRA                             | Cancer Risk          | Per Million | 51.72          | 20                | Potentially Significant |
|  | Chronic Hazard Index | Index Value | 0.02           | 1.0               | Less than Significant   |

**Source:** See Appendix C for complete results.

**Notes:** CEQA = California Environmental Quality Act; HRA = Health Risk Assessment

As shown in Table 4.2-17, the results of the HRA demonstrate that TAC exposure from construction diesel exhaust emissions would result in an on-site cancer risk above the 20 in 1 million threshold for the proposed project. The Chronic Hazard Index for the proposed project would be less than 1. Therefore, TAC emissions from construction activities associated with the proposed project may expose nearby sensitive receptors to substantial pollutant concentrations of TACs and would result in a **potentially significant impact**.

Operational Health Risk

OEHHA recommends that an exposure duration (residency time) of 30 years be used to estimate an individual cancer risk for the maximally exposed individual resident starting in the third trimester to accommodate the increased susceptibility of exposures in early life (OEHHA 2015). Cancer and non-cancer health risk results are presented in Table 4.2-16, based on the 30-year exposure scenario. Complete AERMOD and HARP2 outputs are contained in Appendix C.

**Table 4.1-16. Proposed Project New CUP Stationary Sources - Operational HRA Results - Unmitigated**

| Impact Analysis                              | Impact Parameter     | Units       | Project Impact | SJVAPCD Threshold | Level of Significance |
|--|----------------------|-------------|----------------|-------------------|-----------------------|
| <b>Maximally Exposed Individual Resident</b> |                      |             |                |                   |                       |
| Operational HRA                              | Cancer Risk          | Per Million | 5.81           | 20                | Less than Significant |
|  | Chronic Hazard Index | Index Value | 0.002          | 1.0               | Less than Significant |

**Source:** See Appendix C for complete results.

**Notes:** CEQA = California Environmental Quality Act; HRA = Health Risk Assessment

As shown in Table 4.1-16, the stationary sources at the proposed project new CUP and emergency generators would result in a potential cancer and chronic health risk which would not exceed the SJVAPCD thresholds of 20 in a million and 1.0. Thus, stationary sources at the new CUP and the emergency generators would result in **less-than-significant** cancer and chronic health risk impacts at nearby sensitive residential receptors.

Health Impacts of Carbon Monoxide

As described previously, exposure to high concentrations of CO can result in dizziness, fatigue, chest pain, headaches, and impairment of central nervous system functions. Mobile-source impacts, including those related to CO, occur essentially on two scales of motion. Regionally, project-related construction travel would add to regional trip generation and increase the vehicles miles traveled within the local airshed and the SJVAB. Locally, construction traffic would be added to the roadway system in the vicinity of the campus. Although the SJVAB is currently an attainment area for CO, there is a potential for the formation of microscale CO “hotspots” to occur immediately around points of congested traffic. Hotspots can form if such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and/or is operating on roadways crowded with non-project traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SJVAB is steadily decreasing.

The SJVAPCD GAMAQI states that a quantitative CO hotspots analysis be performed if either of the following two conditions exist: (1) a traffic study for the proposed project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the proposed project vicinity would be reduced to LOS E or F; or (2) a traffic study indicates that the proposed project would substantially worsen an already existing LOS F on one or more streets or at more or more intersections in the project vicinity.

The proposed project would have trip generation associated with construction worker vehicles and vendor trucks. The California Code of Regulations, 40 CFR 93.123(c)(5), Procedures for Determining Localized CO, PM<sub>10</sub>, and PM<sub>2.5</sub> Concentrations (hot-spot analysis), states that “CO, PM<sub>10</sub>, and PM<sub>2.5</sub> hot-spot analyses are not required to

consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established ‘Guideline’ methods. Temporary increases are defined as those which occur only during the construction phase and last five (5) years or less at any individual site” (40 CFR 93.123). While project construction would involve on-road vehicle trips from trucks and workers during construction, construction activities would not require a project-level construction hotspot analysis.

The Transportation Technical Memorandum includes analysis of how the proposed project would affect intersection LOS in the project vicinity. The results showed that the LOS would be D or better during AM and PM peak hours at all 12 study area intersections. Therefore, the SJVAPCD screening threshold would not be exceeded and the proposed project would not result in a CO hotspot or the potential to result in CO emissions that when totalled with the ambient concentrations would exceed a one (1)-hour concentration of 20 parts per million or an eight (8)-hour average of nine (9) parts per million. The impact would be **less than significant**.

### Health Impacts of Other Criteria Air Pollutants

Neither construction nor operation of the proposed project would result in emissions that exceed the SJVAPCD’s emission thresholds for any criteria air pollutants, including ROGs, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. Construction of the project would not exceed the SJVAPCD threshold for ROGs. Specific ROGs may be TACs; however, ROGs are not expected to present risk of health impacts even if the specific ROGs associated with project construction are not entirely known. Some ROGs would be associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in exceeding the SJVAPCD’s threshold, as shown in Tables 4.1-12 and 4.1-14. Generally, the ROGs in architectural coatings are of relatively low toxicity. Additionally, SJVAPCD Rule 4601 restricts the ROG content of coatings for both construction and operational applications.

In addition, ROGs and NO<sub>x</sub> are precursors to O<sub>3</sub>, for which the SJVAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SJVAB is designated by the EPA as a nonattainment area for the 1-hour O<sub>3</sub> NAAQS standard and 1997 8-hour NAAQS standard). The health effects associated with O<sub>3</sub>, as discussed previously in the State Regulations portion of the Regulatory Setting section above, are generally associated with reduced lung function. The contribution of ROGs and NO<sub>x</sub> to regional ambient O<sub>3</sub> concentrations is the result of complex photochemistry. The increases in O<sub>3</sub> concentrations in the SJVAB due to O<sub>3</sub> precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O<sub>3</sub> concentrations would also depend on the time of year that the ROG emissions would occur because exceedances of the O<sub>3</sub> ambient air quality standards typically tend to occur between April and October, when solar radiation is highest.

The holistic effect of a single project’s emissions of O<sub>3</sub> precursors is speculative due to the lack of quantitative methods to assess this impact for a project of the size of the proposed project. Nonetheless, the ROG and NO<sub>x</sub> emissions associated with project construction could minimally contribute to regional O<sub>3</sub> concentrations and the associated health impacts. As described in Section 4.1.2, Environmental Setting, O<sub>3</sub> health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. The proposed project would not exceed the SJVAPCD threshold for O<sub>3</sub> precursor NO<sub>x</sub> during construction or operation thus impacts would be **less than significant**.

Construction of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO<sub>2</sub>. Health effects that result from NO<sub>2</sub> and NO<sub>x</sub> include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. Project construction would be relatively short-term, and

off-road construction equipment would be operating at various portions of the site and would not be concentrated in one portion of the site at any one time. In addition, existing NO<sub>2</sub> concentrations in the area are well below the NAAQS and CAAQS standards. Operation of the proposed project would not create substantial, localized NO<sub>x</sub> impacts.

CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots was discussed previously and is determined to be a less-than-significant impact. Thus, the proposed project’s CO emissions would not contribute to significant health effects associated with this pollutant and impacts would be **less than significant**.

Construction and operation of the proposed project would also not exceed thresholds for PM<sub>10</sub> or PM<sub>2.5</sub> and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the SJVAPCD from coming into attainment for these pollutants. The proposed project would also not result in substantial DPM emissions during construction and operation, and therefore would not result in significant health effects related to DPM exposure. Additionally, the proposed project would implement dust control strategies and be required to comply with SJVAPCD Rule 8021, which limits the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction and operation, the proposed project is not anticipated to result in exposure of sensitive receptors to substantial pollutant concentrations that would result in health effects associated with PM<sub>10</sub> or PM<sub>2.5</sub>.

### Mitigation Measures

With Mitigation Measure 4.1-1 construction-related health impacts would be reduced to less than significant, as shown in Table 4.1-17. This table shows the results of the HRA after implementation of Mitigation Measure 4.1-1. As shown, the construction HRA results from the mitigated scenario show cancer risks less than the 20 in 1 million threshold of and chronic hazard index less than the 1.0 threshold. Therefore, Impacts would be reduced to less than significant.

**Table 4.1-17. Summary of Maximum Cancer and Chronic Health Risks - Mitigated**

| Impact Analysis                              | Impact Parameter     | Units       | Project Impact | SJVAPCD Threshold | Level of Significance |
|--|----------------------|-------------|----------------|-------------------|-----------------------|
| <b>Maximally Exposed Individual Resident</b> |                      |             |                |                   |                       |
| Construction HRA                             | Cancer Risk          | Per Million | 8.77           | 20                | Less than Significant |
|  | Chronic Hazard Index | Index Value | 0.003          | 1.0               | Less than Significant |

**Source:** See Appendix C for complete results.

**Notes:** CEQA = California Environmental Quality Act; HRA = Health Risk Assessment

**MM 4.1-1 Construction Health Effects.** Prior to the commencement of construction activities, the applicant shall require its construction contractor to demonstrate that project-generated construction emissions do not exceed the applicable San Joaquin Valley Air Pollution Control District (SJVAPCD) cancer risk thresholds.

Compliance with this performance standard shall be achieved through the use of California Air Resources Board (CARB)-certified Tier 4 Final engines for all diesel-powered equipment pieces that are 50 horsepower or greater.



In the event of changed circumstances (e.g., changes in the availability of specific types of construction equipment), the applicant may submit a request to the Office of Statewide Planning and Development Facilities Development Division for approval of a different method of achieving project-generated construction emissions that fall below the applicable SJVAPCD cancer risk threshold. Documentation shall be provided to the Office of Statewide Planning and Development Facilities Development Division demonstrating that project-generated construction emissions do not exceed the applicable SJVAPCD cancer risk threshold with the alternate construction methods. (This shall be demonstrated using industry-standard emission estimation methodologies.) If the documentation successfully demonstrates that project-generated construction emissions remain below the applicable SJVAPCD cancer risk threshold, then the Facilities Development Division may approve the alternate construction methods, at the Director's discretion.

Required construction equipment fleet and methodologies approved by the Office of Statewide Planning and Development Facilities Development Division shall be included in the contract specifications for the applicant's construction contractor.

Impact 4.1-4      **The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**

Section 41700 of the California Health and Safety Code and SJVAPCD Rule 4102 (Public Nuisance) prohibit emissions from any source whatsoever in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property, including odors. Projects required to obtain permits from SJVAPCD are evaluated by SJVAPCD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

SJVAPCD Rule 4102 (Public Nuisance) also prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors. Odor issues are very subjective by the nature of odors themselves and due to the fact that their measurements are difficult to quantify. As a result, this guideline is qualitative and will focus on the existing and potential surrounding uses and location of sensitive receptors.

The occurrence and severity of potential odor impacts depends on numerous factors: the nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

Odors associated with the proposed project would be generated from vehicles and equipment exhaust emissions during construction. Potential odors produced during proposed construction activities would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be **less than significant**.

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding facilities. The proposed project entails expanding the existing Medical Center and would not result in the

creation of a new land use that is commonly associated with odors. Therefore, project operations would not result in odor emissions, and the project impact would be **less than significant**.

### Mitigation Measures

None required.

### Cumulative Impacts

The geographic scope for consideration of cumulative air quality impacts is defined as the entire SJVAB because air quality is monitored and regulated based on air basin boundaries. Further, air quality impacts are generally considered to be a cumulative impact because individual land development projects are typically not large enough to create a significant impact independent of the existing air quality conditions and other sources of air pollutant emissions in the region. This is recognized in the SJVAPCD GAMAQI, which states:

“By its very nature, air pollution has a cumulative impact. The District’s nonattainment status is a result of past and present development within the San Joaquin Valley Air Basin (SJVAB). Furthermore, attainment of ambient air quality standards can be jeopardized by increasing emissions-generating activities in the region. No single project would be sufficient in size, by itself, be individually limited, but cumulatively considerable when taken in combination with past, present, and future development within the San Joaquin Valley Air Basin.”

Thus, if project specific emissions exceed the thresholds of significance for criteria pollutants the project would be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the SJVAPCD is in non-attainment under applicable NAAQS or CAAQS.

#### Impact 4.1-5      **The proposed project would not result in increased emissions of criteria pollutants in the SJVAB.**

This section provides an analysis of cumulative impacts from construction and operation of the proposed project and other past, present, and reasonably foreseeable future projects.

As previously discussed under Section 4.1.2, the SJVAB is in nonattainment or maintenance status for O<sub>3</sub> and PM (PM<sub>10</sub> and PM<sub>2.5</sub>), which means that concentrations of those pollutants currently exceed the ambient air quality standards, or that the standards have recently been attained in the case of pollutants with maintenance status. When concentrations of O<sub>3</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> exceed the ambient air quality standard, then those who are sensitive to air pollution, such as children, the elderly, and the infirm, could experience health effects such as decrease of pulmonary function and localized lung edema in humans and animals; increased mortality risk; and risk to public health implied by altered connective tissue metabolism, altered pulmonary morphology in animals after long - term exposures, and pulmonary function decrements in chronically exposed humans. Because of cumulative emissions from numerous sources throughout the SJVAB as well as transport of pollutants from regions outside of the SJVAB. Most sources emit criteria air pollutants in quantities that are too small to have a measurable effect on ambient concentrations by themselves; however, when they are considered in a cumulative sense these emissions result in severe problems to the ambient air quality throughout the SJVAB. In response to this issue, the SJVAPCD has developed an annual emissions threshold of 10 tons for both ROG and NO<sub>x</sub> and 15 tons for both PM<sub>10</sub> and PM<sub>2.5</sub> to limit the individual contribution of discrete projects, thereby reducing the cumulative impacts of many projects.

Since the SJVAB is nonattainment for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, it is considered to have an existing significant cumulative health impact without the proposed project, the analysis considers whether the proposed project’s contribution to

the existing violation of air quality standards is cumulatively considerable. The SJVAPCD regional thresholds for NO<sub>x</sub>, VOCs, PM<sub>10</sub>, or PM<sub>2.5</sub> are applied as cumulative contribution thresholds. The potential for the proposed project to result in a cumulatively considerable air quality impact is evaluated above under Impact 4.1-2. As discussed previously, construction of the proposed project is not expected to exceed the SJVAPCD construction thresholds. Further, as discussed under Impact 4.1-3, the proposed project's construction-related TAC emissions would not result in a significant health risk and would not substantially contribute to health risk in the project area with implementation of Mitigation Measure 4.1-1, which would reduce project-related health risk on nearby sensitive receptors by substantially reducing construction equipment diesel exhaust (DPM). It is reasonable to assume that construction emissions of other projects would also be limited due to adherence to applicable SJVAPCD rules.

Regarding operational related impacts, as discussed under Impact 4.1-2, the proposed project would make a less than cumulatively considerable contribution to long-term operational air quality impacts for all criteria pollutants. Further, as discussed under Impact 4.1-3, the proposed project's operational-related TAC emissions would not result in a significant health risk. The analysis for local CO hotspot impacts under Impact 4.1-3 is based on the SJVAPCD GAMAQI. The qualitative assessment that demonstrated a less than significant impact is inherently a cumulative analysis, and the cumulative impact would be less than significant. In addition, the proposed project is not anticipated to generate nuisance operational odors and there is no existing significant cumulative odor impact in the area; therefore, the proposed project would not combine with other uses to create a significant cumulative odor impact and would have a less than cumulatively considerable operational odor impact.

The 2007 eight (8)-Hour Ozone Plan contains measures to achieve reductions in emissions of ozone precursors and sets plans towards attainment of ambient O<sub>3</sub> standards by 2023. The 2012 PM<sub>2.5</sub> Plan and the 2015 PM<sub>2.5</sub> Plan for the 1997 PM<sub>2.5</sub> Standard require fewer NO<sub>x</sub> reductions to attain the PM<sub>2.5</sub> standard than the Ozone Plan, so the Ozone Plan is considered the applicable plan for reductions of the ozone precursors NO<sub>x</sub> and ROG. The 2012 PM<sub>2.5</sub> Plan requires reductions in directly emitted PM<sub>2.5</sub> from combustion sources, such as diesel engines and fireplaces, and from fugitive dust to attain the ambient standard and is the applicable plan for PM<sub>2.5</sub> emissions. PM<sub>2.5</sub> is also formed in secondary reactions in the atmosphere involving NO<sub>x</sub> and ammonia to form nitrate particles. Reductions in NO<sub>x</sub> that are required for O<sub>3</sub> attainment are also sufficient for PM<sub>2.5</sub> attainment. The proposed project would be consistent with all applicable control measures in the air quality attainment plans and all other projects throughout the region would be required to comply with any SJVAPCD rules and regulations that may pertain to implementation of the air quality plans.

Notably, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days, and methods available to quantitatively evaluate health effects may not be appropriate to apply to emissions associated with the proposed project, which cannot be estimated with a high-level of accuracy. Furthermore, the SJVAPCD air quality plans predict that nonattainment pollutant emissions would continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region. Because of the minimal amount of project-related construction and operational emissions and due to compliance with SJVAPCD rules and regulations, the proposed project's emission contribution would not be cumulatively considerable and the impact would be **less than significant**.

### Mitigation Measures

None required.

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## 4.2 Aesthetics

### 4.2.1 Introduction

This section analyzes evaluates potential effects on aesthetics that could result from implementation of the St. Joseph’s Medical Center of Stockton Hospital Expansion Project (“proposed project”). This section evaluates consistency of the proposed project with the underlying zoning and other local regulations that address scenic quality as well as changes in light and glare that could result from project implementation.

Comments received in response to the Notice of Preparation included a concern regarding the proposed Parking Structure. The comment raised a concern that the Parking Structure would be out of scale with the existing neighborhood and contends that there are no parking garages in the City that are of a similar scale. The project site is consistent with the CEQA definition of an “urbanized area” (Public Resources Code Section 21071[a]). For this reason, Appendix G of the CEQA Guidelines, which is a sample Initial Study checklist, does not require consideration of whether the proposed project would substantially degrade the existing visual character or quality of public views of the site and its surroundings. Instead, projects in urbanized areas, where high-density development can reduce the long-term environmental effects or sprawl by making an efficient use of areas that are already highly developed, only require an evaluation of consistency with regulations that govern scenic quality, including the City’s General Plan and zoning. Other applicable Appendix G questions on the subject of aesthetics include whether the proposed project would have a substantial adverse effect on a scenic vista, scenic highways, or would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. A copy of the Notice of Preparation and comments received are included in Appendix A.

Primary sources in preparing this section include a review of Google Earth aerial and street imagery, the Envision Stockton 2040 General Plan (City of Stockton 2018a) and its Environmental Impact Report (EIR) (City of Stockton 2018b), the Stockton Citywide Design Guidelines (City of Stockton 2004), and the California Department of Transportation (Caltrans) List of Eligible and Officially Designated State Scenic Highways (Caltrans 2019).

### 4.2.2 Environmental Setting

This section describes the existing aesthetic and visual resources setting of the project site and surrounding area.

#### Visual Character of the Surrounding Area

The City of Stockton (City), located near the center of the San Joaquin Valley, is characterized by a mixture of residential, commercial, industrial, and civic land uses. Development in the City includes residential neighborhoods, neighborhood commercial and regional shopping centers, various types of office uses, a mix of heavy and light industrial uses, and a wide range of public and institutional buildings and facilities (City of Stockton 2018b). The periphery of the City is largely characterized by agricultural lands and rural areas. Notable visual features include the Port of Stockton and the Stockton Metropolitan Airport. The Delta of the San Joaquin and Sacramento rivers is located west of the City. Major freeways include Interstate (I) 5 and State Route (SR) 99, which bisect the city and connect to nearby communities in the Central Valley.

The St. Joseph’s Medical Center of Stockton (“Medical Center”) campus, which is included in the project site, is located approximately one (1) mile north of the City’s downtown historic core. The area surrounding the campus is developed with a mix of residential and commercial uses. To the north and west are residential uses, primarily one-

and two-story single-family homes with some multifamily attached housing. Commercial and office uses are located to the west across N. California Street and south across E. Harding Way include surface parking lots, one (1) to four (4)-story medical and commercial office buildings, and fast-food eateries. County and City facilities, which include County medical clinics, a County behavioral health center, and a City fire station, border the site to the south. There are few ornamental street trees along N. California Street. Buildings across E. Harding Way are generally screened by large non-native trees, shrubs, and vine-covered fencing. The San Joaquin Catholic Cemetery borders the site to the east across Cemetery Lane and consists of approximately 39 acres of landscaped green space with large, mature oak trees and ornamental shrubbery.

### Visual Character and Quality of the Project Site

The project site consists of the Medical Center campus, which is developed with 25 buildings, various accessory structures, and surface and underground parking lots. Buildings present within the project site include the Main Hospital building, Outpatient Surgery, Heart Center, Cancer Center, West Wing, East Wing, North Wing, Administration Wing, Southeast Wing, South Wing, and Women and Children's Pavilion (see Figure 2-3 in Chapter 2, Project Description). Buildings are generally neutral-colored in shades of white, grey, and beige, and range from one (1) to four (4) stories in height. The perimeter of the site includes landscaping with grass, and a variety of ornamental shrubs and trees. Landscaped gardens with walkways along N. California Street surround the prominent West Wing building, which features a large golden cross at its western end. The main hospital entrance is tucked off Maple Street, which connects N. California Street and Cemetery Lane from west to east. The patient drop-off and pickup area features a curved driveway, corresponding with the pedestrian bridge above which connects the Main Hospital building to the Women and Children's Pavilion. The project site also includes several off-campus parcels which include relatively small buildings and surface parking lots.

Under the Initial Expansion (phases 1-4), most changes would occur to the area north of Chestnut Street which includes the North Wing, Main Wing, and McCloud Building. Another landscaped garden is located behind the North Wing facing Cemetery Lane, used as a staff respite area. North of the Main Wing is a large surface parking lot that stretches between E. Wyandotte Street and McCloud Avenue from north to south. The parking lot is lined with mid-sized deciduous trees at the perimeter facing N. California Street. The Plant Maintenance building and various accessory structures are located east of the surface parking lot along Cemetery Lane. The area north of the surface parking lot and accessory structures between E. Wyandotte and E. Cleveland Street includes a Generator building, fuel tank yard, laboratory, classroom building, and an unoccupied single-family residence. These buildings are located across from medical offices unaffiliated with the St. Joseph's Medical Center including a two (2)-story building currently under construction.

### Scenic Resources

#### Scenic Roads

A scenic road is a highway, road, drive, or street that provides opportunities for the enjoyment of natural and human-made scenic resources. The Stockton General Plan does not designate any scenic roads or highways in the City. In addition, according to the Caltrans Scenic Highway Program, there are no state designated or eligible scenic routes located within the City. The nearest officially designated state scenic highway is Route 160, which is located approximately 25 miles northwest of the project site (Caltrans 2019). The San Joaquin County General Plan designates portions of I-5 and Eight Mile Road as scenic routes (San Joaquin County 2016). However, I-5 is over 1.5 miles west of the project site, Eight Mile Road is approximately six (6) miles north of the project site, and neither

of these routes are designated state scenic highways. Due to the intervening urban environment and distance from the project site, the project site is outside of the viewshed of the routes mentioned above.

### Scenic Views and Vistas

A scenic vista is generally defined as a view that possesses visual and aesthetic qualities of high value to the community. Scenic vistas are generally interpreted as long-range views of a specific scenic feature (e.g., open space lands, mountain ridges, open water). The San Joaquin County General Plan cites views of the Delta, agriculturally rich valley floor, and panoramic views of the Coastal Ranges and the Sierras as the primary scenic resources in the San Joaquin Valley (San Joaquin County 2016). The Stockton General Plan identifies open space, agricultural fields, and riparian areas, particularly along the San Joaquin River and the Calaveras River, as significant visual features; however, the project is not located in proximity to these areas. (City of Stockton 2018a). There are no officially designated scenic vistas within the City according to the Envision Stockton 2040 General Plan EIR (City of Stockton 2018b).

The City generally consists of urban development bounded by open space and agricultural fields. Given the relatively flat topography of the City, views within the City are generally limited to the built environment. In the project vicinity, publicly accessible vantage points are limited to public roads (N. California Street, E. Harding Way, Cemetery Lane, and E. Cleveland Street) and the San Joaquin Catholic Cemetery. As the project site is located within the City's urban core, views to and from the project site generally consist of commercial and office buildings, parking lots, and street trees.

### Light and Glare

Nighttime lighting is necessary to provide and maintain a safe and secure environment. Light that falls beyond the intended area of illumination is referred to as "light trespass." Types of light trespass include spillover light and glare. Spillover light, which is light that illuminates surfaces beyond the intended area, is typically caused by artificial lighting sources, such as from building security lighting, signs, parking lot lights, roadway lights, and stadium lights on playing fields. Spillover light can adversely affect light-sensitive uses (i.e., adjacent residences), by creating unwanted illumination. Additionally, glare can result from sunlight or from artificial light reflecting off building exteriors, such as glass windows, metal roofs or other highly reflective surface materials.

According to the Stockton General Plan EIR, light trespass in the City primarily comes from street lighting along major arterial streets, I-5, SR 99, SR 4, and from nighttime illumination of commercial buildings, shopping centers, and industrial buildings (City of Stockton 2018b, p. 4.1-6). The City has typical urban light conditions contributed by overhead roadway lighting, commercial and residential buildings, and headlights from motor vehicles. These conditions contrast with the very low ambient nighttime illumination associated with agricultural and rural lands surrounding the City. Nighttime light illumination and associated glare can be divided into stationary and mobile sources. Stationary sources of nighttime light include building lights, decorative landscape lighting, and streetlights. Currently, there are pedestrian, overhead parking lot, and building lights located throughout the developed portions of the Medical Center campus. Mobile sources of light include headlights of motor vehicles on roadways adjacent to and within the Medical Center campus.

## 4.2.3 Regulatory Setting

### Federal Regulations

There are no federal regulations regarding aesthetics applicable to the proposed project.

### State Regulations

#### State Scenic Highway Program

Caltrans manages the State Scenic Highway Program detailed in Streets and Highways Code Section 260. A highway may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. There are no highways or roads within the City or in the vicinity of the project site that are eligible for inclusion in the State Scenic Highway Program (Caltrans 2019).

#### Nighttime Sky – Title 24 Outdoor Lighting Standards

The California legislature passed a bill in 2001 requiring the California Energy Commission to adopt energy efficiency standards for outdoor lighting for both the public and private sector. The most recent 2019 update to Title 24, Parts 1 and 6, includes requirements for outdoor lighting for residential and nonresidential development to help to reduce the impacts of light pollution, light trespass, and glare. The standards regulate lighting characteristics such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off (CEC 2018).

#### California Department of Health Care Access and Information

The California Department of Health Care Access and Information (HCAI), previously known as the Office of Statewide Health Planning and Development (SHPO), has approval authority over hospital building design and construction. HCAI review and approval may result in required changes to the design and construction standards for project buildings and related structures. The HCAI is designated as the “enforcing agency” for specified health facilities and has jurisdiction over plan checking and inspection of the design and details of the architectural, structural, mechanical, plumbing, electrical, and fire and panic safety systems. The scope of authority of HCAI includes general acute care hospital buildings, as well as central plant buildings and non-building structures that provide utility service to buildings under HCAI's jurisdiction. A non-hospital building may also fall under HCAI jurisdiction if the building contains elements required for an acute care hospital.

Division 107 of the California Health and Safety Code states that HCAI requirements may take precedence over proposed Development Standards and/or Design Guidelines proposed by the project's Master Development Plan (MDP). The HCAI is responsible for approving final building design and construction that may result in changes to the design and construction of new buildings under the MDP.

## Local Regulations

### City of Stockton 2040 General Plan

The Envision Stockton 2040 General Plan emphasizes the importance of scenic resources and views in establishing community identity. The City's General Plan identifies open space, agricultural fields, and riparian areas, particularly along the San Joaquin River and the Calaveras River, as significant visual features. No scenic roads or highways are identified in the City. The City's General Plan Land Use chapter includes the following policies related to aesthetic and visual resources that are relevant to evaluation of the proposed project:

**Goal LU-3. Authentic Neighborhoods.** Protect and preserve the authentic qualities of Stockton's neighborhoods and historic districts.

**Policy LU-3.1.** Ensure that exterior remodels and the siting, scale, and design of new development are compatible with surrounding and adjacent buildings, public spaces, and cultural and historic resources.

**Goal LU-5. Protected Resources.** Protect, maintain, and restore natural and cultural resources.

**Policy LU-5.1.** Integrate nature into the city and maintain Stockton's urban forest.

**Policy LU-5.2.** Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.

The General Plan also includes policies related to infill and higher density development:

**Goal LU-6. Effective Planning.** Provide for orderly, well-planned, and balanced development.

**Policy LU-6.2.** Prioritize development and redevelopment of vacant, underutilized, and blighted infill areas.

**Policy LU-6.4.** Ensure that land use decisions balance travel origins and destinations in as close proximity as possible.

### Master Development Plan

The intent of a MDP is to provide flexibility in the planning review process to minimize review of subsequent approvals. The MDP is subject to review and approval by the City and would require specific findings pursuant to Chapter 16.140.080 of the Municipal Code. In particular, in approving the MDP, the City would need to make a finding that that the MDP is consistent with objectives, policies, and general land uses contained in its General Plan. Upon approval, the MDP would become the primary entitlement to implement long-term development for the Medical Center.

The MDP includes the Development Standards and Design Guidelines in Chapter 6. These guidelines include the following:

- **Building Height.** Medical care buildings may be built to a maximum height of 115 feet, parking structures may be built to a maximum height of 115 feet not including heliport and elevators, and campus and infrastructure support buildings may be built to a maximum height of 75 feet.
- **Building Materials.** Criteria for exterior finish materials and colors include:



- The exterior building materials shall form a complementary palette of textures and colors. Warm-tone, approachable materials and colors shall establish the primary palette. Natural stone of hewn, rough cut, flame honed or polished texture; integrally colored synthetic plaster, textured finish; pre-finished metal panels of composite or plate aluminum construction shall constitute the primary exterior wall finishes and accent materials.
- Emphasis on natural materials that demonstrate professional craftsmanship.
- Buildings should appear appropriate relative to surrounding architecture.
- Paving materials may include exposed aggregate concrete, integrally colored concrete, decorative colored and textured asphalt or cast concrete pavers. Pedestrian pathways within gardens may be stabilized decomposed granite.
- **Outdoor Lighting.** Criteria for site and building lights include:
  - Luminance within parking and pedestrian areas shall comply with Stockton Municipal Code requirements. Safety illumination shall be prioritized if there is a conflict with the Municipal Code.
  - Free standing parking lot lighting shall be the same throughout the parking areas. Height to be 20ft maximum and shielded from residential uses.
  - Buildings shall be lit with a combination of ground mounted up lighting, architecturally integrated down lighting, and building mounted sconce lighting.
- **Landscaping.** Criteria for site landscaping include:
  - Plant material shall be California-adapted or native, long-lived, non-toxic and non-invasive.
  - Plants shall be spaced with adequate room to grow to their full size without requiring shearing.
  - Perennial plants may be used sparingly, in accent plantings at entries and therapeutic garden spaces. There shall be no annual color plantings.
  - Mowed lawns shall be limited to small areas for patient/visitor use for therapeutic purposes and shall not exceed 5% of the total landscaped area.

It should be noted that HCAI has approval authority over hospital building design and construction, which may take precedence over design guidelines proposed by the MDP. HCAI review and approval may result in required changes to the design and construction of project buildings and related structures under the MDP.

### City of Stockton Municipal Code

The Stockton Municipal Code, specifically Title 16 (Development Code), contains standards, provisions, and procedures related to landscaping design, light and glare, and design review. Division 5, Chapter 16.140 of the Development Code outlines the purpose, review authority, and processing requirements for master development plans. According to Chapter 16.140 of the Development Code, the MDP would become the primary entitlement to implement long-term development for the Medical Center and provide an administrative process for minor changes that may be necessary in the future. Unless otherwise modified through the state HCAI approval process, the MDP governs the design process and takes precedence over the City's Development Code except where the MDP is silent or references the Development Code. The Development Code includes the following provisions related to aesthetics:

### Section 16.32.070, Light and Glare

This section establishes standards to prevent spillover illumination or glare onto adjoining properties and prohibit interference with the normal operation or enjoyment of adjacent property. Per this section, exterior lights shall be made up of a light source, reflector, and shielding devices so that light is controlled and not directed across a property line or upward into the sky; bare bulbs are not allowed.

### Chapter 16.36, General Development Standards

This chapter sets forth standards to address the details of site planning and project design to ensure that all development is harmonious with existing and future development. Section 16.36.060, Development Considerations, includes standards for all development projects intended to ensure high quality site planning and architectural design. This includes requirements for mechanical equipment, storage areas, and utilities to be located out of public view, and for light sources to be stationary, shielded, and directed away from adjoining properties and public rights-of-way. Section 16.36.090, Height Measurement and Height Limit Exceptions, establishes maximum height standards for development within the City. The project site (including off-campus parcels) contains parcels that are zoned Commercial, Office, (CO), Commercial, General (CG), and Residential, Medium Density (RM). Building heights are limited to 45 feet for parcels zoned for CO or CG, and 35 feet for parcels zoned for RM. Exceptions are also made for public and private institutional uses, including government buildings, hospitals, and schools, which may be built to a maximum of 75 feet in addition to approved specific plans or master development plans.

### Chapter 16.120, Design Review

The types of projects that are subject to the City's design review process include residential, commercial, business park and industrial, and signage. As stated above, only those buildings that are not subject to HCAI approval shall be subject to design review under City procedures. Under City procedures, design review is considered a ministerial function and the Development Standards and Design Guidelines in Chapter 6 of the MDP shall govern the design review process. Otherwise, the City's procedures for design review in Chapter 16.120 of the Municipal Code shall apply. The designated design review authority reviews project features such as building design, landscaping, site planning, and signage to ensure consistency with the City's Citywide Design Guidelines (Design Guidelines), discussed separately below. The required findings for design review are as follows:

- The proposed development is consistent with all applicable provisions of the Development Code and other applicable City ordinances;
- The general design considerations, including the character, quality, and scale of design are consistent with the purpose/intent of Chapter 16.120 and the Design Guidelines and other design guidelines that may be adopted by the City;
- The architectural design of structures and their materials and colors are visually compatible with surrounding development;
- The location and configuration of structures are compatible with their sites and with surrounding sites and structures and do not unnecessarily block views from other structures or dominate their surroundings;
- The general landscape design, including the color, coverage, location, size, texture, and type of plant materials, provisions for irrigation, planned maintenance, and protection of landscape elements have been considered to ensure visual relief, to complement structures, and to provide an attractive environment;

- The design and layout of the project will not interfere with the use and enjoyment of neighboring existing or future development and will not result in vehicular or pedestrian hazards;
- The building design and related site plans, including on-site parking and loading, have been designed and integrated to ensure the intended use will best serve the potential users or patrons of the site; and
- Special requirements or standards have been adequately incorporated, when applicable, into the building and/or site design (e.g., American Disabilities Act regulations, historic preservation, mitigation measures, open space, and utilities).

### City of Stockton Citywide Design Guidelines

The City's Design Guidelines, adopted in 2004, serve as a reference point for the City's expectations for quality development and provide guidance for the designated review authority during the design review process. The Design Guidelines provide minimum design criteria for the achievement of functional and attractive developments that fit within the context of their surroundings and do not clash with neighboring buildings. In general, the Design Guidelines are intended to ensure that new or modified development preserves or improves the positive characteristics of the city's image while avoiding negative impacts. The Design Guidelines include objectives and design standards for each type of development project that is subject to design review.

The Medical Center campus contains parcels that are zoned CO and CG. There is a portion of an off-site parcel zoned RM which would only be used for parking for adjacent modular buildings to accommodate the relocation of non-hospital and non-clinical staff, and therefore the design guidelines for residential uses are not discussed. The commercial design guidelines include the following objectives related to aesthetics (City of Stockton 2004):

- **Quality Development** – Achieve a high level of quality development by ensuring that development fits within the context of its surroundings, does not negatively impact adjacent uses, provides superior architectural detailing, incorporates appropriate high quality, durable materials, includes significant landscape improvements, and achieves an efficient/aesthetic arrangement of on-site facilities.
- **Consistent Development Pattern** – Maintain a strong sense of continuity along street frontages to strengthen the visual image of commercial corridors.
- **Compatibility With Surrounding Uses** – Ensure that new development (including redevelopment and remodeling) complements surrounding uses and does not create negative impacts for such uses. Ensure that development is aesthetically pleasing, especially when viewed from adjacent properties, streets, and freeways.
- **Functional Site Arrangement** – Ensure that the arrangement of on-site facilities (e.g., buildings, parking areas, accessory uses, etc.) are planned appropriately to establish an efficient, safe, and aesthetically pleasing site layout.
- **Architectural Character** – Maintain a high level of architectural design through appropriate detailing, use of quality/durable materials, and the avoidance of blank, uninteresting wall planes. Provide high quality and visually interesting roof designs consistent with the overall design of the building and surrounding quality development.
- **Landscape Emphasis** – Encourage the extensive use of landscaping in order to achieve visually pleasing development, provide a unified development scheme through a cohesive arrangement of landscape and hardscape elements, provide pedestrian comfort, and enhance views of the site by screening potentially unattractive elements (e.g., trash enclosures, parking areas, etc.).

## 4.2.4 Impacts and Mitigation Measures

### Methods of Analysis

The project site is consistent with the CEQA definition of an “urbanized area,” which includes incorporated cities with populations of 100,000 persons or more (Public Resources Code Section 21071[a]). Based on 2021 Census data the City had a population of 322,120 which would meet this definition. Because the site is in an urbanized area, Appendix G of the CEQA Guidelines only requires an evaluation of consistency with City regulations that govern scenic quality, including the City’s General Plan and zoning. Therefore, project impacts are primarily analyzed using the 2040 General Plan (City of Stockton 2018a), the Stockton Municipal Code, and the Stockton Citywide Design Guidelines (City of Stockton Cemetery) as primary sources.

As detailed in Chapter 2, Project Description, the project proposes a MDP that establishes the foundation for the hospital expansion and for future growth of the Medical Center. The MDP identifies five phases of development with phases 1-4 (“Initial Expansion” phase) to include the following uses: a new Acute Care Hospital Tower, multistory Parking Structure, Central Utility Plant, expansion of the existing Generator building, and other required support facilities within the Medical Center campus boundaries. Phase 5 Expansion is considered a future phase which may include expansion of acute care hospital services along with additional parking.

### Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact would occur if development of the proposed project would do any of the following:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

### Significance Threshold Criteria Not Applicable to the Proposed Project

Potential impacts to scenic vistas, state scenic highways, and light and glare were analyzed in the Initial Study (IS) prepared for this project (Appendix B). A brief discussion of conclusions made in the Initial Study (see Appendix B) is included below.

#### Scenic Vistas

A project which substantially blocks or alters a view of a scenic vista would be a potentially significant impact. There are no officially designated scenic vistas within the City according to the 2040 General Plan EIR (City of Stockton 2018b) and publicly accessible vantage points are limited to public roads and the San Joaquin Catholic Cemetery, none of which would be considered a scenic vista for the purposes of CEQA. Therefore, the project would have no impact on scenic vistas and this topic is not discussed further in this EIR.

### State Scenic Highways

A project which substantially damages scenic resources visible from a state scenic highway would be a potentially significant impact. There are no officially designated state scenic highways identified in the City (City of Stockton 2018b) and the nearest Caltrans officially designated state scenic highway is Route 160, which is located approximately 25 miles northwest of the project site (Caltrans 2019). The San Joaquin County General Plan designates portions of I-5 and Eight Mile Road as scenic routes (San Joaquin County 2016). However, neither of these routes are designated state scenic highways and development of the project would occur outside of the viewshed of the routes mentioned above. Therefore, there would be no impact associated with damaging scenic resources within a state scenic highway and this topic is not discussed further in this EIR.

### Light and Glare

A project which creates a new source of substantial light or glare which would adversely affect day or nighttime views in the area would be a potentially significant impact. As discussed in the IS, the project would adhere to the City's lighting requirements and design standards and would use building materials available at a reasonable cost that would minimize glare. All exterior lighting shall be shielded and directed away from adjoining properties or public rights-of-way, pursuant to Chapter 16.36 of the City's Municipal Code. Therefore, project impacts associated with an increase in light and glare would be less than significant and this topic is not discussed further in this EIR.

### Project Impacts

**Impact 4.2-1      The proposed project would conflict with applicable zoning and other regulations governing scenic quality.**

As stated in the Regulatory Setting, the project site is in an urbanized area which only requires an evaluation of consistency with regulations that govern scenic quality, per Appendix G of the CEQA Guidelines. Therefore, the proposed project may result in a significant impact if it is found that the project would conflict with those provisions listed in the Regulatory Setting above, such as policies within the City's 2040 General Plan or design standards in the Development Code.

The proposed project includes a MDP that establishes the foundation for the Medical Center campus expansion. Consistent with Chapter 16.140 of the City's Municipal Code, upon City approval the MDP would become the primary entitlement for current and future development of the Medical Center campus. In approving the MDP, the City would need to make a finding that the MDP is consistent with the objectives, policies, and land uses contained in its General Plan. The City's General Plan does not include any goals or policies that address scenic quality. The General Plan Land Use chapter includes Policy LU-3.1, which states that siting, scale, and design of new development should be compatible with the surrounding area and Policy LU-5.2, which is intended to protect scenic areas from encroachment or destruction by incompatible development. The proposed project is considered "infill development"<sup>1</sup> that would include new buildings designed to be compatible with existing buildings on the existing Medical Center campus, including a Parking Structure of up to nine (9) stories (115 feet) and an Acute Care Hospital Tower of up to five stories (115 feet) tall. Existing buildings at the Medical Center campus generally range from one to four stories in height, and to the west across N. California Street and south across E. Harding Way there are various one (1) to four (4)-story medical and commercial office buildings. As discussed, the project site is located within an urbanized area approximately one mile north of downtown

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<sup>1</sup> The Office of Planning and Research defines "infill development" as buildings within unused and underutilized lands within existing development patterns, typically but not exclusively in urban areas.

Stockton. The portion of the campus proposed for new development includes existing buildings and surface parking lots that would be removed to accommodate the new buildings. Given the developed and disturbed nature of the site, the proposed project would not encroach upon or otherwise substantially impact natural resources (Policy LU-5.2). There are no public parks or other public outdoor recreational areas nearby that would be visually impacted by infill development within the Medical Center campus. The San Joaquin Catholic Cemetery borders the site to the east across Cemetery Lane but is not considered a public park or a public open space. While the Parking Structure and Acute Care Hospital Tower building would be taller than surrounding development, these new buildings would support existing and future needs of the Medical Center and would not create compatibility issues with adjacent buildings, public spaces, or historic resources, consistent with Policy LU-3.1. Additionally, the City encourages infill and higher-density development in Policy LU-6.2 and Policy LU-6.4. Policy LU-6.2 states that the City should “prioritize development and redevelopment of vacant, underutilized, and blighted infill areas.” Buildings to be demolished at the site include underutilized structures due to age and lack of capacity to meet current healthcare requirements, and also do not meet current seismic safety requirements. By redeveloping this portion of the Medical Center campus, the proposed project would maximize the use of underutilized property, which would enable the Medical Center to place new uses proximate to existing medical facilities to ensure staff, visitors and patients can easily and efficiently access medical services throughout the entire campus. Policy LU-6.4 is intended to “ensure that land use decisions balance travel origins and destinations in as close proximity as possible.” New buildings would be located within the existing Medical Center campus, which would ensure that staff, visitors, and patients would only need to travel to one central location.

Development under the MDP would not occur if the MDP were found to be inconsistent with the City’s General Plan. The MDP also allows for administrative interpretations of its Development Standards and Design Guidelines to ensure future development is consistent with the overall intent and objectives of the City’s General Plan. Please see Chapter 3, Land Use and Planning for an evaluation of the project’s consistency with applicable General Plan goals and policies.

Chapter 6 of the MDP includes development and design standards for the project such as those related to building heights, building materials and colors, and outdoor lighting. The MDP includes standards that deviate from the City’s zoning development standards provided in Title 16 of the Development Code. The City limits building heights to 45 feet for parcels zoned for Office Commercial or General Commercial, and 35 feet for parcels zoned for Medium Density Residential. Exceptions are made for public and private institutional uses, including government buildings, hospitals, and schools, which may be built to a maximum of 75 feet. The proposed project is dependent on approval of the MDP, which would then take precedence over the City’s Development Code except where the MDP is silent or references the Development Code. If approved, the proposed project would instead be subject to the project’s MDP development standards which state that medical care buildings on this campus may be built to a maximum height of 115 feet, parking structures may be built to a maximum height of 115 feet not including mechanical screen and heliports, and campus and infrastructure support buildings may be built to a maximum height of 75 feet. As previously discussed, the proposed project intends to maximize the use and redevelop underutilized property within the Medical Center campus. The proposed new buildings would allow the Medical Center to accommodate current and future needs of the community within one central location, compatible with the existing use of the site and consistent with the intent of the City’s General Plan policies. New development proposed under the Initial Expansion phase would include a new Acute Care Hospital Tower built to a maximum height of 115 feet and a Parking Structure built to a maximum height of 115 feet (not including mechanical screens and the heliport(s)). Other buildings including the Central Utility Plant, Plant Maintenance building, and a new Generator building addition would range from 55 to 75 feet in height. Project buildings would not exceed



the height limits specified in MDP. The Phase 5 Expansion, which may include additional parking and expansion of the Acute Care Hospital Tower, and Future Expansion phases would also be subject to the MDP height limits.

The project would also comply with building design, landscaping, and lighting guidelines stated in the MDP. Building exteriors would consist of warm-toned natural stone, textured synthetic plaster, and/or metal panels. Paving materials would include exposed aggregate or colored concrete, textured asphalt, or decomposed granite. Lighting within parking and pedestrian areas would be consistent with the Municipal Code, which states that exterior lighting shall be stationary, shielded, and directed away from adjoining properties or public right-of-way. Building lights would include a combination of ground mounted up lighting, architecturally integrated down lighting, and building mounted sconce lighting. New landscaping would include California-adapted or native plant species spaced appropriately to allow their growth to full size.

The proposed project would also be subject to HCAI review and approval. The HCAI has jurisdiction over plan checking and inspection of the design and details of general acute care hospital buildings, as well as support facilities that would include the central plant buildings and non-building structures that provide utility service to buildings under HCAI jurisdiction. Under the Initial Expansion phase, HCAI would review all proposed project components with the exception of the Parking Structure and Plant Maintenance building. Because HCAI has approval authority over hospital building design and construction, there may be changes to the design of the Acute Care Hospital Tower building, Central Utility Plant, Generator building addition, and internal retrofits and seismic safety improvements to existing buildings before building permits are issued.

The Parking Structure and Plant Maintenance building would not be subject to HCAI approval and would therefore be subject to the City's design review process specified in Chapter 16.120 of the Development Code. Design review is considered a ministerial function and the Development Standards and Design Guidelines in Chapter 6 of the MDP would govern the design review process. Otherwise, the City's procedures for design review in Chapter 16.120 of the Development Code would apply. Project features would be evaluated for their consistency with the City's Citywide Design guidelines, such as visual compatibility with surrounding uses and use of landscaping to enhance views of the site. Phase 5 Expansion and Future Expansion phases, depending on the nature of new project components, would also be subject to HCAI review or the City's design review process.

With consideration of the above discussion, development of the proposed project (upon approval of the MDP) would not conflict with applicable zoning or other regulations governing scenic quality, since the City's Municipal Code would allow for the MDP to become the primary entitlement for current and future development of the Medical Center campus. However, it should be noted that the MDP would allow for construction that deviates from the City's zoning development standards provided in Title 16 of the Development Code. Most notably, the Development Code limits building heights to 45 feet for parcels zoned for CO or GC and 75 feet for hospitals. Approval of the MDP would allow for significantly taller buildings which would enable the Acute Care Hospital Tower to be up to 115 feet tall (including mechanical equipment) and the Parking Structure also up to 115 feet tall (not including the heliport and mechanical screens). Considering this change in allowable height, which would bypass the City's existing height limits adopted for the purpose of protecting scenic quality, the proposed project would result in a **significant impact**.

### Mitigation Measures

There are no mitigation measures available to reduce the impact. Therefore, the impact is considered significant and unavoidable.

## Cumulative Impacts

The cumulative context is buildout of the City's 2040 General Plan. As discussed under the Thresholds of Significance, the IS prepared for the project determined there would be no impacts associated with scenic vistas and scenic highways, and a less-than-significant impact regarding light and glare (see Appendix B). Additionally, the analysis under Impact 4.2-1, above, evaluates conflicts with applicable zoning and other regulations governing scenic quality, which is not considered to be an additive effect. The City's 2040 General Plan EIR did not identify any existing cumulative impacts related to aesthetics or visual resources (City of Stockton 2018b). Since consistency with applicable plans and zoning is not considered additive the project would not combine with any other projects to result in a cumulative effect. Thus, an analysis of cumulative impacts is not required.

## Other Project Considerations

Tall buildings or other structures can cast shadows on nearby properties, streets, sidewalks, and parks, which may be considered an undesirable visual effect. CEQA does not require shadow impacts to be evaluated and the City does not have any adopted thresholds to evaluate potential impacts. However, a solar study was performed and included in the MDP to determine the extent that the Acute Care Hospital Tower and Parking Structure would cast shadows on adjacent areas during the winter and summer solstice. A summary of the results is provided for informational purposes.

The solar study rendered the winter solstice shade path using effective daylight hours of 8 a.m. to 4 p.m. At 8 a.m. the new buildings would cast shadows to the west, and by 9 a.m. nearly all shadows are cast onto N. California Street or adjacent parking lots. Throughout 10 a.m. and 11 a.m. a shadow is cast upon E. Cleveland Street and a portion of the north elevation of the building across E. Cleveland Street. By noon, all shadows cast are upon the Medical Center campus or the San Joaquin Catholic Cemetery across the street for the duration of the day.

The summer solstice shade path was rendered using effective daylight hours of 6 a.m. to 6 p.m. At 6 a.m. shadows would fall upon a medical office building and residences to the west. By 8 a.m. all shadows would cast onto N. California Street. Between 10 a.m. and 3 p.m. all shadows would be cast on the Medical Center campus until moving south toward the San Joaquin Catholic Cemetery.

## 4.2.5 References

Caltrans (California Department of Transportation). 2019. "List of eligible and officially designated State Scenic Highways (XLSX)." Accessed June 10, 2022. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.

CEC (California Energy Commission). 2018. *Building Energy Efficiency Standards for Residential and Nonresidential Buildings*. December 2018. Accessed August 3, 2022. [https://www.energy.ca.gov/sites/default/files/2021-06/CEC-400-2018-020-CMF\\_0.pdf](https://www.energy.ca.gov/sites/default/files/2021-06/CEC-400-2018-020-CMF_0.pdf).

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San Joaquin County. 2016. *San Joaquin County General Plan Policy Document*. Accessed June 9, 2022. <https://www.sjgov.org/commdev/cgibin/cdyn.exe/file/Planning/General%20Plan%202035/GENERAL%20PLAN%202035.pdf>.

## 4.3 Biological Resources

### 4.3.1 Introduction

This section analyzes evaluates potential effects on biological resources that could result from implementation of the St. Joseph’s Medical Center of Stockton Hospital Expansion Project (“proposed project”). This section identifies the existing biological setting of the site, applicable state/federal regulations, and evaluates potential project impacts related to special-status plant or wildlife species or their habitat, on the presence of any wetlands, and on any existing wildlife movement corridors. This section also identifies mitigation measures to avoid or substantially reduce any potentially significant project impacts.

Comments received in response to the Notice of Preparation included concerns raised by the Sierra Club regarding stormwater management and impacts to surface water quality, as well as impacts to adjacent open space parcels. The latter comment expressed concern related to the adjacent cemetery parcels that may provide habitat to a wide range of species, some of which are designated as “special-status” or listed as state- and/or federally-threatened. A copy of the Notice of Preparation and comments received is included in Appendix A.

Sources reviewed to prepare this section include the St. Joseph’s Medical Center of Stockton Hospital Expansion Project Master Development Plan (MDP), St. Joseph’s Medical Center of Stockton Expansion Project Biological Resources Assessment (Appendix D), St. Joseph’s Medical Center Expansion Project Arborist Report (Appendix D), and the City’s Envision Stockton 2040 General Plan and environmental impact report (EIR). Other sources cited throughout this section are listed in Section 4.3.5, References.

### 4.3.2 Environmental Setting

#### Regional Setting

The proposed project site is located in the City of Stockton (City), in the central eastern portion of San Joaquin County. The site is located within the San Joaquin Valley geographic subdivision of the California Floristic Province (Jepson Flora Project 2020). Although this region primarily consists of agriculture and urban development, there are a variety of natural vegetation types also present such as grasslands, riparian woodlands, and oak woodland. Natural vegetation is primarily concentrated in the foothills along the east and west borders of the San Joaquin Valley.

#### Project Site Setting

The project site incorporates the existing St. Joseph’s Medical Center (“Medical Center”) campus, which consists of approximately 18.7 acres of primarily developed land located 1.3 miles north of State Route (SR) 4, 2.3 miles west of SR 99, and 2.6 miles east of Interstate 5. The existing Medical Center campus currently consists of 25 buildings, internal roads, surface parking lots, and numerous accessory structures. The Medical Center has undergone numerous renovations with buildings demolished, replaced, and modernized, with the most recent significant renovations completed in 2017. The proposed project also includes off-campus properties for short-term uses during and after construction. Undeveloped areas consist of landscaped gardens with walkways along N. California Street and a small respite area for hospital staff landscaped with trees and grass located off Cemetery Lane.

Topography of the project site is relatively flat at 15 to 20 feet above mean sea level trending from the northeast corner to the southwest corner of the project site. The two off-site locations identified for short-term uses during

construction for temporary buildings are both existing surface parking lots. Both sites are generally flat with elevations similar to the project site. The area of potential effect (APE) on the campus slated for development comprises approximately 9 acres.

According to the Natural Resources Conservation Web Soils Survey (USDA 2022), the soils at the site consist entirely of Jacktone-Urban land complex, 0% to 2% slopes. See Section 4.6, Geology and Soils, for an in-depth discussion of soils on the project site.

### Existing Site Conditions

A reconnaissance-level biological survey of the project site was conducted on August 11, 2021, to confirm existing biological conditions within the project site and to characterize on-site vegetation communities and land covers, assess habitat suitability for special-status plants and wildlife, and to determine if potential jurisdictional aquatic resources (i.e., waters of the U.S./state) occur on the site. Because the time of year that the site survey was conducted (mid-August) was outside the blooming and breeding periods of special-status plant and/or animal species known to occur in the region, no focused or protocol-level surveys to determine presence/absence of such species were conducted. However, and as discussed in Section 4.3.4 below, no habitat potentially supporting special-status plant or animal species known to occur in the region was observed within the project site during the survey. The area surveyed included the 18.7-acre campus, plus a 100-foot buffer surrounding the campus, and the off-campus properties. Vegetation communities and land cover were mapped according to the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018) and List of Vegetation Alliances and Associations, also referred to as the Natural Communities List (CDFW 2021). During the survey, a general inventory of plant and wildlife species detected by visual and aural cues, tracks, scat, or other signs was compiled (Appendix D).

Land cover was determined to be a combination of “Urban/Developed”, that included the existing buildings, parking lots, and roadways, and “Parks and Ornamental Plantings” to encompass existing landscaped areas generally comprised of ornamental, ruderal, and non-native vegetation. Approximately 403 trees were identified within the campus including Italian stone pine (*Pinus pinea*), deodar cedar (*Cedrus deodara*), Modesto ash (*Fraxinus velutina*), coast redwood (*Sequoia sempervirens*), tree of heaven (*Ailanthus altissima*), crape myrtle (*Lagerstroemia indica*), mayten (*Maytenus boaria*), Callery pear (*Pyrus calleryana*), southern magnolia (*Magnolia grandiflora*), and several other ornamental and non-native tree species (Appendix D). Other plant species present include echinacea (*Echinacea spp.*), cotoneaster (*Cotoneaster franchetii*), Matilija poppy (*Romneya coulteri*), narrow leaf milkweed (*Asclepias fascicularis*), blue plumbago (*Plumbago auriculata*), fountain grass (*Pennisetum spp.*), artichoke thistle (*Cynara cardunculus*), and several other herbaceous species commonly found in heavily disturbed or landscaped urban areas. No aquatic features occur on the site.

Wildlife species detected were limited to House Finch (*Haemorhous mexicanus*) and Northern Mockingbird (*Mimus polyglottos*). No active bird nests were observed; however, the site survey occurred outside of the active nesting season for most bird species known to breed in the project region. No amphibian, reptile, or mammal species were detected. However, existing trees on the site, as well as vacant building scheduled for demolition, could provide diurnal roosting and shelter habitat (primarily under tree bark or in tree crevices) for various bat species that are known to occur in the project region. No maternity bat roost habitat was determined to occur or potentially occur on the project site.

## Special-Status Resources

Special-status plant and wildlife species are defined as those species that are (1) listed as threatened or endangered by either the California or federal Endangered Species Acts, (2) plants that are candidates for listing, and species designated with a California Rare Plant Rank of 1 or 2 by the California Native Plant Society (CNPS), (3) wildlife that are candidates for listing and species with a designation from the CDFW of Fully Protected or Species of Special Concern. No special-status plant or wildlife species, or habitat to support these species, were identified within the APE (Appendix D). However, while not listed in any of the above sensitivity categories, common non-game bird species, including nests with eggs or young, are protected from injury or mortality pursuant to California Fish and Game Code Sections 3503, 3503.5, and 3511 discussed below. Most bird species are also protected from harm or mortality pursuant to the federal Migratory Bird Treaty Act (MBTA), as discussed below. In addition, native bat species are considered non-game mammals and are therefore prohibited from take (injury or mortality) pursuant to California Fish and Game Code Section 4150 discussed below.

Other special-status biological resources include vegetation communities that are considered by CDFW as sensitive, that are of particular value to special-status plant or wildlife species, or that have a rank of S1–S3 on the CDFW List of Terrestrial Communities. Wetlands and other waters of the state or U.S., discussed in more detail below, are also considered of special-status by state and federal resource agencies. However, no vegetation communities considered of special status by the State, or any aquatic features considered waters of the state or U.S., occur within the APE or elsewhere on the project site.

### 4.3.3 Regulatory Setting

#### Federal Regulations

##### Endangered Species Act

The federal Endangered Species Act (FESA) of 1973, as amended, (16 USC 1531 et seq.) serves as the enacting federal legislation to list, conserve, and protect threatened and endangered species, and the ecosystems on which they depend, from extinction. In addition, for those wildlife species listed as federally endangered, FESA provides for the ability of the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service to designate critical habitat, defined as that habitat considered “essential to the conservation of the species” and that “may require special management considerations or protection.” FESA Section 9(a)(1)(B) prohibits the taking, possession, sale, or transport of any endangered fish or wildlife species. “Take” is defined in statute to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 USC 1532 (19)). Federal regulations found in 50 Code of Federal Regulations section 17.3 further defines the term “harm” in the take definition to mean any act that kills or injures a federally listed species, including significant habitat modification or degradation.

For discretionary permit actions by non-federal entities, Section 10 of the Endangered Species Act provides a mechanism for obtaining take authorization through submittal and approval of a Habitat Conservation Plan that details species impacts, measures to minimize or mitigate such impacts, and funding mechanisms to implement mitigation requirements. Pursuant to FESA Section 10(a)(1)(B), the USFWS may issue a permit for the take of threatened or endangered species provided that such taking is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” FESA Section 7 applies to actions undertaken by federal agencies. Under Section 7, if a project that would potentially result in adverse impacts to threatened or endangered species includes any action that is authorized, funded, or carried out by a federal agency, that agency must consult with the USFWS



(for terrestrial species) or the National Marine Fisheries Service (for ocean-going species) to ensure that any such action is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat for that species. With respect to any endangered species of plant, Sections 9(a)(2)(A) and 9(a)(2)(B) prohibit the possession, sale, and import or export, of any such species, and prohibits any action that would “remove and reduce to possession any such species from areas under federal jurisdiction; maliciously damage or destroy any such species on any such area; or remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law.”

### Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50, Section 10.13 of the Code of Federal Regulations. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the U.S. Fish and Wildlife Service. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50, Section 20 of the Code of Federal Regulations. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors). In December 2017, the Department of Interior issued an opinion that interprets the above prohibitions as only applying to direct and purposeful actions the intent of which is to kill, take, or harm migratory birds; their eggs; or their active nests. Incidental take of birds, eggs, or nests that are not the purpose of such an action, even if there are direct and foreseeable results, are not prohibited under this opinion. On February 3, 2022, the USFWS issued a proposed rule in the Federal Register to codify this approach to defining the scope of the MBTA.

### Clean Water Act – Section 404

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify certain categories of wetlands or other waters of the United States. The Corps implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

### Clean Water Act – Section 401

The State Water Resources Control Board has authority over wetlands through Section 401 of the CWA, as well as the Porter–Cologne Water Quality Control Act, California Code of Regulations, Title 23, Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredge or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the state’s water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards. The Central Valley Regional Water Quality Control Board (RWQCB) has authority for Section 401 compliance in the project area. A request for certification is submitted to the regional board at the same time that an application is filed with the U.S. Army Corps of Engineers.

## State Regulations

### California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Fish and Game Commission has the responsibility of maintaining a list of threatened and endangered species. CESA prohibits the take of state-listed threatened or endangered animals and plants unless otherwise permitted pursuant to CESA. Take under the California Fish and Game Code, and therefore under CESA, is defined as any of the following: “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (California Fish and Game Code Section 86). Unlike the federal Endangered Species Act, the California definition of “take” does not include harassment or harm (e.g., habitat degradation). Species determined by the state to be candidates for listing as threatened or endangered are treated as if listed as threatened or endangered and are, therefore, protected from take.

CESA generally prohibits the taking of state listed endangered or threatened fish, wildlife, and plant species; however, for projects resulting in impacts to State listed species, the CDFW may authorize take through issuance of an Incidental Take Permit (ITP) pursuant to Section 2081 of the California Fish and Game Code. Section 2081 requires preparation of mitigation plans in accordance with published guidelines that require, among other things, measures to fully mitigate impacts to State listed species. The CDFW exercises authority over mitigation projects involving State listed species, including those resulting from CEQA mitigation requirements.

### Fully Protected Species

The classification of Fully Protected was an effort by California Legislature in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Protection of Fully Protected Species is described in four sections of the Fish and Game Code (Fish and Game Code [ FGC] §§ 3511, 4700, 5050, and 5515). These statutes prohibit take or possession of Fully Protected Species at any time. The CDFW is unable to authorize incidental take of Fully Protected Species when activities are proposed in areas inhabited by these species, except pursuant to an approved Natural Community Conservation Plan. Most Fully Protected Species have also been listed as threatened or endangered species under State endangered species laws and regulations. Permits may be issued for the take of Fully Protected Bird species for necessary scientific research and relocation of the species for the protection of livestock (as per California FGC § 3511(a)(1)).

### Fish and Game Code Section 1600 – Lake and Streambed Alteration Agreement

Under Sections 1600–1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW’s jurisdiction are defined in the code as the “bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit” (Section 1601).

### California Department of Fish and Wildlife – Wetlands Protection Regulations

The CDFW derives its authority to oversee activities that affect wetlands from state legislation. This authority includes California Fish and Game Code Sections 1600–1616 (lake and streambed alteration agreements), the California ESA (protection of state-listed species and their habitats, which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, CDFW asserts authority over wetlands within the state through any of the following: review and comment on U.S. Army Corps of

Engineers Section 404 permits, review and comment on CEQA documents, preservation of state-listed species, or lake and streambed alteration agreements.

### Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act provides that “All discharges of waste into the waters of the State are privileges, not rights.” Waters of the state are defined in Section 13050(e) of the Porter–Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” All dischargers are subject to regulation under the Porter–Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The Central Valley RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. As noted in the discussion of the CWA, the Central Valley RWQCB is the appointed authority for Section 401 compliance in the project area.

On April 2, 2019, the state Water Resources Control Board (SWRCB) adopted by Resolution 2019-0015 the “State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State” (“Procedures”) for inclusion in the Water Quality Control Plans for Inland Surface Waters, Enclosed Bays, and Estuaries of California. The Procedures became effective on May 28, 2020; however, the Procedures have been the subject of a legal judgement by the California Superior Court.<sup>7</sup>

In adopting the Procedures, the SWRCB noted that under the Porter-Cologne Water Quality Control Act discharges of dredged or fill material to waters of the state are subject to waste discharge requirements or waivers. The SWRCB further explained that “although the state has historically relied primarily on requirements in the Clean Water Act to protect wetlands, U.S. Supreme Court rulings reducing the jurisdiction of the Clean Water Act over wetland areas by limiting the definition of ‘waters of the United States’ have necessitated the use of California’s independent authorities under the Porter-Cologne Act to protect these vital resources.”

By adopting the Procedures, the SWRCB mandated and standardized the evaluation of impacts and protection of waters of the state from impacts due to dredge and fill activities. The Procedures include: (1) a wetland definition; (2) a jurisdictional framework for determining if a feature that meets the wetland definition is a water of the state; (3) wetland delineation procedures; and 4) procedures for application submittal, and the review and approval of dredge or fill activities.

The Procedures define an area as a wetland if it meets three criteria: wetland hydrology, wetland soils, and (if vegetated) wetland plants. An area is a wetland if: (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation. This modified three-parameter definition is similar to the federal definition in that it identifies three wetland characteristics that determine the presence of a wetland: wetland hydrology, hydric soils, and hydrophytic vegetation. However, unlike the federal definition, the Procedures’ wetland definition allows for the presence of hydric substrates as a criterion for wetland identification (not just wetland soils) and wetland hydrology for an area devoid of vegetation (less than 5% cover) to be considered a wetland.

Waters of the state includes more aquatic features than Waters of the U.S. In addition, the federal definition of a wetland requires a prevalence of wetland vegetation under normal circumstances. To account for wetlands in arid portions of the state, the SWRCB’s definition differs from the federal definition in that an area may be a wetland even if it does not support vegetation. If vegetation is present, however, the SWRCB’s definition requires that the

vegetation be wetland vegetation. The SWRCB's definition clarifies that vegetated and unvegetated wetlands will be regulated in the same manner.

The Procedures also include a jurisdictional framework that applies to aquatic features that meet the wetland definition. The jurisdictional framework will guide applicants and staff in determining whether an aquatic feature that meets the wetland definition will be regulated as a water of the state. The jurisdictional framework is intended to exclude from regulation any artificially created, temporary features, such as tire ruts or other transient depressions caused by human activity, while still capturing small, naturally-occurring features, such as seasonal wetlands and small vernal pools that may be outside of federal jurisdiction. The Procedures do not expand the SWRCB's jurisdiction beyond areas already under SWRCB's jurisdiction.

### Fish and Game Code Section 1900-1913 – California Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code Sections 1900–1913) directed CDFW to carry out the Legislature's intent to “preserve, protect and enhance rare and endangered plants in this State.” The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as “endangered” or “rare” and protect endangered and rare plants from take. CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the CFGC. To align with federal regulations, CESA created the categories of “threatened” and “endangered” species. It converted all “rare” animals into the act as threatened species but did not do so for rare plants. Thus, there are three (3) listing categories for plants in California: rare, threatened, and endangered. According to CDFW, a CESA Section 2081 permit for incidental take of listed threatened and endangered plants from all activities is required, except for activities specifically authorized by the NPPA. Because rare plants are not included in CESA, appropriate compensatory mitigation measures for significant impacts to rare plants are typically negotiated with the CDFW.

### Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning (NCCP) Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. CDFW is the principal state agency implementing the NCCP program. Natural community conservation plans developed in accordance with the NCCP Act provide for comprehensive management and conservation of multiple wildlife species and identify and provide for the regional or area-wide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth.

### California Native Plant Society

The California Native Plant Society (CNPS), a nongovernmental organization, has no regulatory authority but provides information that is often used by regulatory bodies during their CEQA review processes. The CNPS maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California. The following identifies the definitions of the CNPS listings:

- Rank 1A: Plants presumed extinct
- Rank 1B: Plants rare, threatened, or endangered in California and elsewhere
- Rank 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere
- Rank 3: Plants about which more information is needed – a review list

- Rank 4: Plants of limited distribution – a watch list

Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review, especially for those plant species including in Lists 1 and 2.

### California Fish and Game Code – Sections 3503, 3503.5, 3511, 3513

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds-of-prey (raptors) or the nest or eggs of any such bird. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

### California Fish and Game Code – Section 4150

California Fish and Game Code Section 4150 states that all mammals, including bats and active bat roosts, occurring naturally in California that are not game mammals, fully protected mammals, or fur-bearing mammals are considered “non-game mammals” and, as such, may not be taken (hunted, pursued, caught, captured, possessed, or killed) except as provided under the Code.

### Water Quality Control Plan for the Sacramento-San Joaquin River Basins

The Water Quality Control Plan for the Sacramento-San Joaquin River Basins (Basin Plan), adopted by the Central Valley RWQCB in 1998, identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and SJR basins, including the Delta. State and federal laws mandate the protection of designated “beneficial uses” of water bodies. State law defines beneficial uses as “domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves” (Water Code Section 13050[f]).

### California Environmental Quality Act

CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been generally modeled after the definition in FESA and Chapter 1.5 of the California Fish and Game Code that addresses rare or endangered plants and animals. Appendix G of the CEQA Guidelines requires a lead agency to determine whether or not a project would “have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.” CEQA Guidelines Section 15065 requires that a lead agency find an impact to be significant if a project would “substantially reduce the number or restrict the range of an endangered, rare, or threatened species.”

## Local Regulations

### San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

The key purpose of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), is to provide a strategy for balancing the need to conserve Open Space and the need to Convert Open Space to non-Open Space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under FESA or CESA; providing and maintaining multiple-use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to project proponents and society at large. The project site does not support habitat or species covered under the SJMSCP.

## Local Regulations

### City of Stockton Envision 2040 General Plan

The Envision Stockton 2040 General Plan Chapter 3, Land Use includes the following policies related to natural resources that are relevant to evaluation of the proposed project:

Goal LU-5 Protected Resources. Protect, maintain, and restore natural and cultural resources.

Policy LU-5.1. Integrate nature into the City and maintain Stockton's urban forest.

Action LU-5.1c. Require landscape plans to incorporate native and drought-tolerant plants in order to preserve the visual integrity of the landscape, conserve water, provide habitat conditions suitable for native vegetation, and ensure that a maximum number and variety of well-adapted plants are maintained.

Policy LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development

## Master Development Plan

The intent of an MDP is to provide flexibility in the planning review process to minimize review of subsequent approvals. The MDP is subject to review and approval by the City and would require specific findings pursuant to Chapter 16.140.080 of the Municipal Code. In particular, in approving the MDP, the City would need to make a finding that that the MDP is consistent with objectives, policies, and general land uses contained in its General Plan. Upon approval, the MDP would become the primary entitlement to implement long-term development for the Medical Center.

The MDP includes development and design guidelines in Chapter 6. These guidelines Include:

- **Landscape Intent.** Landscape design plays an essential role in supporting the Medical Center's overall site planning goals of safe and easy navigation, comfortable pedestrian circulation, and a positive user experience for patients, staff, and visitors. Landscape plans will include fragrant plants, cool and



calming colors, naturalistic massing and foliage with soft texture and movement. Pollinator friendly plants are encouraged.

- **Plant Palettes.** Where possible, plants that attract wildlife (birds, butterflies, and hummingbirds) or have proven healing powers, like lavender, catnip sage, and rosemary are encouraged. Layering of shrub heights will promote a feeling of privacy, escape or respite in key areas. Shade trees should be selected that minimize litter, as well as the potential to heave sidewalks, causing safety issues. Mature canopy size should be thoughtfully considered to minimize future conflicts with buildings in tight spaces yet provide a unifying rhythm for street frontage and adequate shade for Stockton’s warm central valley climate.
- **Landscape Planting Guidelines.** Landscape planting shall be design with sustainability and ease of maintenance in mind and should complement the overall architectural style of the Medical Center.
  - All plant material shall be California-adapted, long-lived, non-toxic and non-invasive. California native plant species should be incorporated where appropriate.
  - All plant material shall have a very low water use, low water use, or medium water use rating according to the water use classification of landscape species (WUCOLS) rating system.
  - Plants shall be spaced with adequate room to grow to their full size without requiring shearing.
  - Perennial plants may be used sparingly, in accent plantings at entries and therapeutic garden spaces. There shall be no annual color plantings.
  - Mowed lawn shall be limited to small areas for patient/visitor use for therapeutic purposes and shall not exceed 5% of the total landscaped area.
  - Street trees on the frontages shall be consistent with City of Stockton streetscape requirements.

It should be noted that HCAI has approval authority over hospital building design and construction which may take precedence over design guidelines proposed by the MDP. HCAI review and approval may result in required changes to the design and construction of project buildings and related structures under the MDP.

### City of Stockton Municipal Code

The City of Stockton Municipal Code (Title 16 Development Code) addresses the protection of, and procedures to obtain a permit to remove, Heritage Trees and Street Trees within the city limits. Heritage Trees are defined as any oak tree identified as a Valley Oak, Coast Live Oak, or Interior Live Oak which is located on public or private property within the limits of the City, and which has a trunk diameter of 16 inches or more, measured at 24 inches above actual grade. For oak trees of these species with multiple trunks, the combined total trunk diameter is used for all trunks measuring six (6) inches or greater measured at 24 inches above actual grade. Street Trees are defined as any tree planted by the City, or by another party that has been permitted by the City of Stockton Community Development Director (Director) to plant in lieu of the City, either in the public right-of-way or public utility easement. Chapter 16.72.245 of the Code states that it is unlawful for a Heritage tree that is located in the City to be harmed, injured, defaced, destroyed, removed, caused to be removed, or effectively removed without first obtaining a permit from the City. Chapter 16.130 of the Code identifies the procedure by which the Director may consider the appropriateness of a request to remove a heritage tree and the process by which a permit would be obtained to remove such a tree. Chapter 16.162 of the Code provides the procedure by which the Director may consider the appropriateness of a request to plant, remove, replace, or relocate a Street tree and the process by which a permit would be obtained to remove such a tree.

## 4.3.4 Impacts and Mitigation Measures

### Methods of Analysis

CEQA requires that projects analyze the potential impacts on special-status plant and animal species, as well as on sensitive habitats, wildlife corridors, and waters of the United States and the State of California. Impacts on wildlife species that are not considered of special-status (as defined under Section 4.3-2, Environmental Setting) are generally not considered significant unless impacts are associated with the species' migration routes or movements, or the species are considered locally important. In addition, regardless of listing status, impacts on all nesting native bird species are addressed because they are protected from harm under the state Fish and Game Code and the federal MBTA, as discussed above.

An analysis of special-status plants and wildlife species habitats and distribution where these resources are located was conducted through a desktop review of available relevant literature and data to determine those resources that have the potential for occurrence on the project site and within approximately 100 feet of the APE. The following resources were reviewed to identify if any special-status biological resources are present or potentially present within the project site: CDFW California Natural Diversity Database, USFWS Environmental Conservation Online System (Information for Planning and Conservation Report), and the CNPS Inventory of Rare and Endangered Plants (CNPS 2020). The California Natural Diversity Database and CNPS database searches included the U.S. Geological Survey 7.5-minute quadrangle map on which the project site is located (i.e., Stockton West) and the eight (8) surrounding quadrangles (i.e., Terminous, Lodi South, Waterloo, Stockton East, Holt, Union Island, Lathrop, and Manteca). These databases provided information regarding special-status plants, wildlife, and habitats recorded for the study area and vicinity. As described under Section 4.3-2, Environmental Setting, a Dudek biologist also conducted a reconnaissance-level survey of the project site on August 11, 2021, including a 100-foot buffer surrounding the project boundaries.

The analysis of direct and indirect impacts covers construction, operation, and maintenance of the proposed project. Direct impacts include those that would occur immediately as a result of the proposed project on a particular biological resource. Indirect impacts refer to off-site and on-site "edge effects" that are short-term (i.e., not permanent) and result from project construction or long-term (i.e., permanent) due to the design of the project and the effects it may have to adjacent resources. Examples of "edge effects" include dust, noise, and general human presence that may temporarily disrupt species and habitat vitality and construction-related soil erosion and runoff. The significance of any of these impacts to biological resources was assessed by comparing the potential changes to on-site resources resulting from the proposed project to the significance thresholds listed below.

As detailed in Chapter 2, Project Description, the project proposes a MDP that establishes the foundation for the hospital expansion and for future growth of the Medical Center. The MDP identifies five phases of development with Phases 1-4 ("Initial Expansion") to include the following uses: a new Acute Care Hospital Tower, multistory Parking Structure, Central Utility Plant, expansion of the existing Generator building, and other required support facilities within the Medical Center campus boundaries. Phase 5 is considered a future phase which may include expansion of the Acute Care Hospital building along with additional parking.

### Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and CEQA Guidelines section 15065 (mandatory findings of significance), a significant impact would occur if development of the proposed project would do any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications including substantially reducing the number or restrict the range of a rare or endangered plant or animal, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- 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.
- 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.
- 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
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
- Substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels.
- Threaten to eliminate a plant or animal community.

### Significance Threshold Criteria Not Applicable to the Proposed Project

Potential impacts to riparian habitat, wetlands, and the San Joaquin Habitat Conservation Plan were analyzed in the Initial Study (IS) prepared for this project (Appendix B). A brief discussion of conclusions made in the IS follows below.

#### Effects on Riparian Habitat or Other Sensitive Natural Communities

A project that would interfere with native resident or migratory wildlife species, or their migratory corridors or nursery sites, would be considered to have a potentially significant impact. The project site is characterized by disturbed and ornamental land covers and lacks riparian habitat or other sensitive vegetation communities (Appendix D). The project would not introduce pollutants to stormwater discharge that would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulation. As a result, the proposed project would have no impact to riparian habitat or any other sensitive natural community and the associated significance threshold for these resources is not discussed further in this EIR.

#### Effects on State or Federally Protected Wetlands

A project that would have an adverse effect on state or federally protected wetlands would be considered to be a potentially significant impact under CEQA. Based on the biological survey conducted for the project (Appendix D), no waters of the state or of the United States occur within the project site or the APE. As such, the proposed project would not impact any of these resources, and the associated significance threshold for these resources is not discussed further in this EIR.

#### Effects on Plant or Animal Communities

A project that would eliminate a plant or animal community could be considered to be a potentially significant impact under CEQA. As discussed above in Section 4.3.2, the entire area within the APE was classified as a combination of “Urban/Developed”, that included the existing buildings, parking lots, and roadways, and “Parks and Ornamental

Plantings” that consisted of landscaped areas generally comprised of ornamental, ruderal, and non-native vegetation. No native or otherwise natural plant or animal communities were determined to occur on the project site. As such, the proposed project would not impact, let alone eliminate, any naturally occurring plant or animal community, and the associated significance threshold for these resources is not discussed further in this EIR.

### Conflict with an Adopted Local, Regional, or State Habitat Conservation Plan

A project that would conflict with an adopted Habitat Conservation Plan or Natural Community Conservation Plan would be considered to have a potentially significant impact. The project site is within an area covered by the SJMSCP. However, the plan primarily covers conversion of undeveloped open space and agricultural areas to development. The project’s proposed redevelopment of disturbed and developed lands is not a covered activity under the SJMSCP. Moreover, the redevelopment of the project site would not conflict with any goals or objectives of the SJMSCP. The project site is not within or adjacent to any other conservation plans or a designated conservation area. As a result, the project would not conflict with any local, regional, or state habitat conservation plans, and the associated significance threshold for this topic is not discussed further in this EIR.

### Project Impacts

Impact 4.3-1      **The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, nor substantially reduce the number or restrict the range of a rare or endangered plant or animal.**

The biological resources assessment prepared for the project site included the Medical Center campus and off-campus areas, including a 100-foot buffer (Appendix D). The entire project site is characterized by developed lands with small areas of ruderal and other non-native plant and tree species, including the 100-foot buffer area. A desktop review of available relevant literature and data as well as a reconnaissance site survey were conducted in order to determine if any special-status plant or animal species could be present on the site.

No habitat for special-status plant species known to occur in the region was observed within the APE during the reconnaissance-level survey conducted on August 11, 2021.<sup>1</sup> Tree species present primarily consist of ornamental and non-native tree species. Plant species present on site included herbaceous species commonly found in heavily disturbed or landscaped urban areas. Based on the results of the desktop literature review, 23 special-status plant species were identified as historically occurring within the vicinity of the project site. However, none of these species are expected to occur within the APE based on the lack of suitable habitat for these species and the current disturbance levels of the site observed during the survey. Additionally, the site is not located within any Critical Habitat areas designated by the USFWS for federally listed plant species. As a result, substantially adverse effects to special-status plant species associated with future development of the project would not occur, nor would project implementation reduce the number or restrict the range of a rare or endangered plant species. Therefore, potential effects on special-status plant species as a result of project implementation would be **less than significant**.

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<sup>1</sup> A comment received in response to the NOP raised concerns regarding species that may be present in the adjacent San Joaquin Catholic cemetery. The cemetery site is not within the project’s APE and was not included in the area surveyed. Furthermore, based on a review of aerial imagery, the cemetery appears to be entirely landscaped with ornamental/managed grass and planted with a variety of landscaped trees and shrubs. Habitat suitable to support populations of special-status plant and animal species does not appear to occur with the cemetery.

No special-status wildlife species were detected within the APE during the reconnaissance-level survey on August 11, 2021, and no habitat potentially supporting special-status wildlife species is present within the APE. Based on the results of the desktop literature study, 41 special-status wildlife species were identified as occurring within the region. Each of those 41 special-status wildlife species was determined to not be expected to occur on or adjacent to the project site due to the lack of suitable habitat, level of human disturbance, and surrounding land uses (see Appendix D). Additionally, the site is not located within any USFWS-designated Critical Habitat for federally listed wildlife species. As a result, substantially adverse effects to special-status wildlife species associated with project implementation would not occur, nor would project implementation reduce the number or restrict the range of a rare or endangered animal. Therefore, potential effects on special-status wildlife species as a result of project implementation would be **less than significant**.

Common bird species detected during the site survey were limited to House Finch and Northern Mockingbird; no active nests of these or other avian species were observed during the survey. However, as previously noted, the survey was conducted outside the time of year when nesting is most active for most bird species in the project region. Development of the site is anticipated to require removal of over 250 trees that could serve as nest habitat for a variety of bird species and temporary roosting habitat for bats; the five (5) vacant buildings scheduled for demolition could also provide temporary diurnal roosting habitat for bat species. If project site construction were to occur within the active nesting period (generally March through July) for bird species in this region, direct and indirect impacts to active bird nests (i.e., nests with eggs or young) could result in the loss of eggs or injury to or loss of young and, as such, would be considered a violation of the California Fish and Game Code and the federal MBTA as described in Section 4.3.3 above.

Furthermore, bats, which are also protected by the California Fish and Game Code, could potentially use these trees, as well as the vacant buildings slated for demolition, for temporary diurnal roost sites. The removal of trees or vacant buildings occupied by roosting bats could result in harm or mortality to individual bats and, as such, would be considered a violation of Section 4150 of the California Fish and Game Code as described in Section 4.3.3 above.

Therefore, and in order to ensure compliance with the California Fish and Game Code with respect to common bird and bat species, and the federal MBTA with respect to common bird species, pre-construction surveys would need to be conducted during the bird nesting season and bat roosting season to determine the presence or absence of active bird nests and roosting bats. Recommended Conditions of Approval are provided below to demonstrate compliance with these state and federal laws with respect to common bird and bat species. Therefore, the project would not result in a substantial adverse effect, either directly or through habitat modifications, on any protected species identified as a candidate, sensitive, or special-status, nor substantially reduce the number or restrict the range of a rare or endangered plant or animal. The project would have a **less-than-significant impact**.

### Mitigation Measures

None required.

### Recommended Conditions of Approval

Even though the loss of occupied bird nests or bat roosts by common bird and bat species would not be evaluated under the significance thresholds described earlier (e.g., 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 CDFW or USFWS) by virtue of the fact that these species are not considered of special-status, the project applicant is nevertheless required to comply with state and federal laws

(in this case the California Fish and Game Code and the federal MBTA) that protect these common species. As such, the following Conditions of Approval are recommended to ensure compliance with these laws.

COA-1: Preconstruction Nesting Bird Surveys

If vegetation removal and initial ground-disturbing activities would occur during the nesting season (March 1 – July 31) of common bird species potentially nesting on the project site, surveys for active nests shall be conducted as described below.

- a. A qualified biologist shall conduct a pre-construction survey for nesting birds no more than 14 days prior to vegetation or tree removal or ground-disturbing activities. The survey shall be conducted in suitable nesting habitat both within the limits of construction as well as within 250 feet of the limits of construction. If suitable nest habitat within 250 feet of the limits of construction occurs beyond the project boundary into adjacent privately held lands, then the survey shall only be conducted within habitat up to the project site boundary. This includes trees and shrubs adjacent to the site within that buffer distance. If vegetation removal or ground-disturbance activities are delayed, additional nest surveys shall be conducted such that no more than 14 days elapse between the survey and vegetation removal or ground-disturbance activities.
- b. If any active nests are observed during the pre-construction surveys, a qualified biologist shall establish a suitable avoidance buffer from the active nest and construction activities. The buffer distance shall be determined based on factors such as the species of bird; the presence/absence of visual barriers between the disturbance and the nest; type, intensity and extent of the disturbance; timing relative to the nesting cycle; and anticipated construction schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.
- c. If an active nest is identified in or adjacent to the construction zone after construction has started, work in the vicinity of the nest shall be halted until the qualified biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged and/or full-time monitoring by a qualified biologist during construction activities conducted in close proximity to the nest. The buffer distance shall be determined based on the same factors set forth in paragraph b.

COA-2: Preconstruction Roosting Bat Surveys

- a. To ensure compliance with California Fish and Game Code section 4150, if tree removal and building demolition will occur during peak bat activity periods (March 1–April 30 and August 1–October 31) when juvenile or overwintering bat species known to occur in the project region may be present, the following will be conducted to ensure protection of potentially occurring bats and their roosts on the project site. Additionally, and to the extent practicable, construction activities shall be restricted to daylight hours to reduce indirect and direct disturbance to roosting and foraging bat species.
- b. A pre-construction bat survey shall be conducted within 30 days of the removal of any trees or buildings. The survey shall include a visual inspection of potential roosting features (bats need not be present) and presence of guano in the construction footprint and within 50 feet of the



footprint. If bats are found within the vacant buildings, or if individual bats are located within tree bark or tree crevices of trees to be removed, the individuals shall be evicted under the direction of a qualified biologist to ensure their protection and to avoid unnecessary harm.

Impact 4.3-2      **The proposed project would not substantially interfere with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.**

Wildlife corridors are linear features that connect large areas or patches of natural open space and provide avenues for the movement of animals, such as coyote and deer. Habitat linkages are small areas or patches of land that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that essentially function as “steppingstones” for wildlife dispersal. In addition, trees provide nesting habitat for migratory birds that may pass through the area.

As stated in Section 4.3.2, Environmental Setting, the project site is located in an urbanized area of the City and is largely developed with existing buildings, roads and surface parking lots and supports some landscaped and ornamental trees and shrubs within the developed areas. The two off-campus locations identified for use during construction for temporary buildings and construction equipment storage are both existing surface parking lots. The proposed project site, including adjacent areas such as the San Joaquin Catholic cemetery to the east and the existing residential and commercial areas to the west, north, and south, are not located within area habitat linkage or corridor that provides connectivity between large open space habitat areas in the region. There are no waterways or intermittent drainages that bisect the project site that could provide movement habitat for fish or terrestrial species. As described above under the Methods of Analysis, the literature search did not reveal any documented wildlife corridors on or adjacent to the project site.

Wildlife “nursery sites” are defined as being associated with nesting/breeding areas used by numerous animals in one general location such as heron and egret rookeries, bat maternity roosts, sea lion/seal haul-out breeding areas, etc., and not as individual bird nests or other individual animal dens or burrows. No wildlife nursery sites were observed on the project site, and none are expected to occur there given the lack of suitable nursery habitat and the general high level of existing human disturbance and activity on the site.

Because the site does not serve as a wildlife movement corridor and construction of the site would not substantially interfere with wildlife movement, and because the site does not support or is expected to support wildlife nursery sites, construction of the project would not substantially affect wildlife movement or nursery sites. Therefore, project impacts would be **less than significant**.

### Mitigation Measures

None required.

Impact 4.3-3      **The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

A project that would conflict with local policies or ordinances protecting biological resources would be considered to have a potentially significant impact under CEQA. Such a potential impact could arise due to a conflict with the City’s Municipal Code regulations outlined in Chapter 16.130 regarding the removal of protected trees. The Land Use chapter of the City’s 2040 General Plan includes policies and actions related to biological resources in

developed areas, as listed in Section 4.3.3, Regulatory Setting. This includes Policy LU-5.1, which aims to maintain the City's urban forest. According to the Arborist Report (Appendix D), there are approximately 403 trees within the APE. As noted above under Existing Site Conditions and in Appendix D, the large majority of these trees are ornamental and non-native tree species that have been planted to serve landscape functions; the trees are primarily located along sidewalks and streets, within surface parking lots, and within small grass landscaped areas between buildings. Of the trees assessed, 28 trees meet the City's criteria for classification as a Street Tree, and one (1) meets the requirements of a Heritage Tree, as defined above under the Regulatory Setting. It is anticipated that the one Heritage Tree, 18 Street Trees, and 174 other trees would require removal to accommodate project development. However, the project would plant replacement trees in compliance with the City's permit conditions for removal of Heritage and Street Trees. The tree replacement recommendations set forth in the Arborist Report (Appendix D) include the replacement of the one (1) Heritage Tree slated for removal with three (3) 24-inch box size trees of the same species (Valley Oak), and the replacement of the 18 Street Trees to be removed with 24-inch box size trees at a 1:1 ratio. These recommendations are consistent with the City's standards for Heritage and Street Tree removal and will be included in the project's Conditions of Approval. No tree removal is proposed on the off-campus lots to accommodate the modular buildings; however, canopy pruning of trees within the temporary building sites may be necessary to create space for the modular buildings (Appendix D). Consistent with Action LU-5.1c, the project would also incorporate native and drought-tolerant plants in the project's proposed landscaping plan.

The project would also comply with General Plan Policy LU-5.2, which aims to protect natural resource areas and fish and wildlife habitat from encroachment or destruction by incompatible development, because the project would involve infill development on a site that is already highly disturbed. As described above under Impacts 4.3-1 and 4.3-2, the project site has little to no potential to provide nesting or foraging habitat for protected special-status wildlife or plant species. The loss of nesting habitat for migratory birds and bats due to removal of existing trees and buildings would be addressed as part of the project's Conditions of Approval. With these recommended Conditions of Approval, development of the site would not impact wildlife habitat, or other natural resources from encroachment or destruction by incompatible development.

Compliance with the City's General Plan policies and Heritage and Street Tree permit requirements would ensure the project would not conflict with any local policies or ordinances protecting biological resources. As such, potential conflicts with local policies or ordinances protecting biological resources would be **less than significant**.

### Mitigation Measures

None required.

**Impact 4.3-4      The proposed project would not substantially reduce the habitat of a fish or wildlife species or cause a fish or wildlife population to drop below self-sustaining levels.**

As stated in Section 4.3.2, Environmental Setting, the project site is located in an urbanized area of the City and is largely developed with existing buildings, roads and surface parking lots, with landscaping largely characterized by ornamental trees and shrubs, and managed lawns, within the developed areas. The two (2) off-campus locations identified for use during construction for temporary buildings and construction equipment storage are both existing surface parking lots. No aquatic habitat occurs on the site that would support fish population and no naturally occurring terrestrial habitat occurs on the site that would support sustainable populations of terrestrial wildlife species. While the landscaped trees and shrubs do provide some nesting and foraging habitat for common avian and mammal species adapted to human-disturbed environments, the loss/removal of any of these resources would

not substantially reduce the habitat of a wildlife species or cause a wildlife population to drop below self-sustaining levels. Therefore, impacts associated with this threshold would be **less than significant**.

### Mitigation Measures

None required.

### Cumulative Impacts

The cumulative context is buildout of the City's 2040 General Plan.

**Impact 4.3-5      The proposed project would not result in a significant cumulative impact related to biological resources.**

The scope of the cumulative impact analysis for biological resources is future development within the City associated with buildout of the 2040 General Plan. The City's 2040 General Plan Update Draft EIR did not identify any project level or cumulative impacts to biological resources (City of Stockton 2018b). The General Plan evaluated potential impacts to candidate, sensitive or special-status plant and wildlife species; riparian habitat, protected wetlands, and other sensitive natural communities; movement of native resident or migratory wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites; consistency with applicable goals and policies; and potential to conflict with an adopted Habitat Conservation Plan. Consistency with the adopted San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) was also reviewed. The EIR concluded compliance with City goals and policies and the SJMSCP would mitigate any potential impacts. The types of impacts that could occur associated with buildout of the City's General Plan in the more urbanized areas include loss of protected trees, potential to impact nesting bird species, and the potential to impact federal or state protected wetlands. In areas along the boundaries of the City limits where there are areas of undisturbed land impacts could also include loss of special-status plant or wildlife species, including loss of nesting and foraging habitat.

As discussed under the Thresholds of Significance, the IS prepared for the project (Appendix B) determined there would be no impacts associated with effects on riparian habitat, impacts to wetlands, nor would the project conflict with an adopted habitat conservation plan. Additionally, the analysis under Impacts 4.3-1 and 4.3-2 of this EIR concludes there would be less-than-significant impacts to special-status and/or protected species as well as regarding interference with the movement of any native resident or migratory fish or wildlife species. Due to the developed nature of the project site and the surrounding areas biological resources are limited to ornamental landscape trees and managed lawns. Furthermore, the analysis under Impact 4.3-3 concludes there would be a less-than-significant impact related to applicable local policies protecting biological resources. The project, in combination with past, present and future probable projects in the City would not contribute to the loss of protected species or their habitat contributing to a cumulative impact. Therefore, the project's contribution to cumulative impacts related to the loss of biological resources would not be considerable resulting in a less-than-significant contribution and a **less-than-significant cumulative impact**.

### Mitigation Measures

None required.

### 4.3.5 References

CDFW (California Department of Fish and Wildlife). 2018. Protocols for Surveying and Evaluating Impacts to Special-Status Native Populations and Natural Communities. March 20. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>.

CDFW. 2021. California Natural Community List. <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities>.

CNPS (California Native Plant Society, Rare Plant Program). 2021. Rare Plant Inventory (online edition, v9-01 1.5). Accessed September 2021. <http://www.rareplants.cnps.org>.

Jepson Flora Project. 2020. Jepson eFlora. Berkeley, California: University of California. Accessed January 2020. <http://ucjeps.berkeley.edu/IJM.html>.

USDA (United States Department of Agriculture). 2022. Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed December 2019. <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.

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## 4.4 Cultural and Tribal Cultural Resources

### 4.4.1 Introduction

This section evaluates potential effects on cultural and tribal cultural resources including historic built environment resources that could result from implementation of the St. Joseph’s Medical Center of Stockton Hospital Expansion project (“proposed project”). Cultural resources include prehistoric or historic-period archaeological resources, Native American resources of cultural and religious significance, historic-period architectural resources, and historic-period engineering features. Tribal Cultural resources (TCRs) are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, in the national, state, or local register of historical resources, or that have been determined to be tribal cultural resources by the lead agency. This section describes the cultural setting of the project site, discusses known resources within the project site, and also identifies the resource sensitivity of the project site for encountering cultural resources.

One comment letter received in response to the Notice of Preparation regarding cultural and tribal cultural resources from the Native American Heritage Commission. The letter does not raise any specific concerns other than to reiterate the requirement of the lead agency to comply with Assembly Bill (AB) 52 and provides information outlining the requirements to evaluate potential impacts to cultural resources. A copy of the Notice of Preparation and comments received are included in Appendix A.

The primary sources reviewed to prepare this section include a Historical Resources Inventory and Evaluation Report prepared by Dudek (Kaiser et al. 2021), a Cultural (Archaeological) Resources Letter Report prepared by Dudek (September 2021), and information provided by the City of Stockton (City). The reports prepared for the project are provided in Appendix E.

### 4.4.2 Environmental Setting

This section describes the existing cultural resource setting in the City as it relates to the proposed project.

#### Natural Setting

The proposed project is located in the City, which is within the Sacramento-San Joaquin River Delta region located in the middle of California’s Central Valley within the northern portion of the San Joaquin Valley. The Delta is a large estuary and river delta formed by the confluence of the Sacramento River from the north and San Joaquin River to the south. The Delta is bordered by the Sierra Nevada Mountain Range to the east, the Sacramento Valley to the north, the San Joaquin Basin to the south, and the Coast Range and San Francisco Bay to the west. The City, specifically, is located in the southern portion of the Delta, near the transition to the San Joaquin Basin watershed.

#### Prehistoric Setting

The archaeology and prehistory of the San Joaquin Valley are not well understood however a general chronological framework developed for the Central Valley has been developed. The archaeological record of the Central Valley can be divided into the Paleoindian Period (11,550–8550 calibrated years [cal] BC), Archaic Period (8550 cal BC – cal AD 1100), Emergent Period (cal AD 1100–1750), and Ethnohistoric Period (post-AD 1769), with the Archaic Period further subdivided into three phases, the Lower Archaic (8550-5550 cal BC), Middle Archaic (5550-550 cal BC), and Upper Archaic (550 cal BC – cal AD 1100) based on climatic and cultural variations.



### Paleoindian Period (ca. 11,550 – 8550 cal BC)

While few sites of Paleoindian age have been identified in the San Joaquin Valley and Delta regions, occupation is known to date to at least 11,000 years ago (Hanten and Giacinto 2021). Most of the evidence for a Paleoindian presence in the valley has been limited to surface finds of fluted projectile points, which are typically regarded by North American archaeologists as late Pleistocene early Holocene time markers. Numerous specimens of these fluted, concave base (Clovis or “Clovis-like”) projectile points and other artifacts presumed to be Paleoindian in age (e.g., “humpies” and crescents – see Hanten and Giacinto 2021) have been collected from surface contexts in several locations in the San Joaquin Valley. Unfortunately, most of these discoveries have been made by amateur collectors, many of whom were collecting illegally, so virtually no provenance has been provided for these artifacts. This has resulted in an enormous and irretrievable loss of data for understanding the Paleoindian Period in this region.

### Archaic Period (8,550 cal BC – cal AD 1,100)

The Archaic Period in California is generally characterized by gradual development of specific regional adaptations and the proliferation and regional differentiation of subsistence strategies and tool types as people became increasingly sedentary, or at least reoccupied a greater number of locations with greater frequency, resulting in the formation of a larger number of regionally or functionally distinct sites. The Archaic Period in the Central Valley is subdivided into three phases: Lower Archaic, Middle Archaic, and Upper Archaic.

Lower Archaic deposits in the Central Valley tend to be isolated finds lacking stratigraphic context. It is believed that human subsistence during this period was based largely on the hunting of large game and fishing (Hanten and Giacinto 2021), and grinding implements, such as mortars, pestles, milling stones, and handstones, appear infrequently during this time. Middle Archaic sites are typified by the distinct adaptive pattern of more generalized and logistically organized subsistence practices and residential stability along river corridors (Hanten and Giacinto 2021). While hunting and fishing continue to be important aspects of subsistence, the increased prevalence of groundstone tools, including early examples of mortars and pestles, suggest an increased reliance on vegetal resources, likely the result of greater residential stability driving resource intensification. The continued importance of fishing is indicative in the adoption of new fishing technologies, including gorge hooks, composite bone hooks, and spears, identified at Middle Archaic sites in Contra Costa, Sacramento, and San Joaquin counties (Hanten and Giacinto 2021). The archaeological record from the Upper Archaic is better understood and represented, and is marked by an increase in cultural diversity, with numerous regional distinctions in burial posture, artifact styles, and other elements of material culture (Hanten and Giacinto 2021). The period is marked by the development and proliferation of numerous bone tools and implements, as well as widespread production and trade of manufactured goods, including Olivella shell beads, Haliotis ornaments, and obsidian bifacial roughouts and ceremonial blades (Hanten and Giacinto 2021). Subsistence economies during the Upper Archaic focused on seasonally structured resources that could be harvested and processed in bulk, including acorns, salmon, shellfish, deer, and rabbits. The proliferation of mortars and pestles and archaeobotanical remains indicate that the first widespread reliance on acorns occurred during this period (Hanten and Giacinto 2021). Large, mounded village sites also first occurred in the Delta region during this period (Hanten and Giacinto 2021).

### Emergent Period (cal AD 1100 – Historic Contact)

The archaeological record for the Emergent Period is the most substantial and well-documented of any period in the Central Valley, and the assemblages and adaptations represented therein are the most diverse. The Emergent Period also marks the onset of cultural traditions consistent with those documented at European contact and the disappearance of several previous archaeological traditions. Large villages developed in areas of the Sacramento

Valley, and the number of mound villages and smaller hamlets increased across the region. Subsistence economies during the Emergent Period were increasingly focused on fishing and plant gathering, with subsistence intensification evident in the increased reliance on small seeds and a more diverse assortment of mammals and birds (Hanten and Giacinto 2021). Perhaps the most notable technological change during the Emergent Period is the introduction of the bow and arrow, as the favored hunting implement sometime between AD 1100 and AD 1300 (Hanten and Giacinto 2021). The Emergent Period in general is marked by an increase in population size and the number of residential sites and villages throughout the region, with increasing regional variability and resource intensification.

### Ethnographic Setting

During the ethnohistoric period, the City would have likely been the tribal territory of the Delta Yokuts, or Far Northern Valley Yokuts, whose dialects were spoken along the lower course of the San Joaquin River from its confluence with the Merced River to the delta soughs north of Stockton. The vicinity of the proposed project area specifically, was the territory of the *Yachikamne*, whose principal village was in Stockton (Hanten and Giacinto 2021).

Northern Valley Yokuts habitation areas were most commonly situated in proximity to rivers and major tributaries, more often on the east side of the river (Hanten and Giacinto 2021). West of the river, populations were much sparser and concentrated in the foothills on minor waterways. This focus on waterways can also be seen in their dietary resources which included various fish, waterfowl, antelope, elk, acorns, tule roots, and various seeds. The focus on fishing is seen in the material culture consisting of net sinkers and harpoons, likely used from rafts constructed from tule reed bundles (Hanten and Giacinto 2021).

Relatively little other information is known about the Delta Yokuts as their population saw sharp and devastating decline from disease and relocation to coastal missions nearly immediately after Spanish contact (Hanten and Giacinto 2021). This only increased with the large influx of cattle ranching and Anglo Americans after the gold rush (Hanten and Giacinto 2021).

### Historic Context

The San Joaquin River delta area has been settled since the prehistoric era. The Spanish first explored the San Joaquin Valley in 1772; however, Gabriel Moraga named the valley San Joaquin de los Tulares in 1808 after the rushes and wetland plants that grew in the valley. In 1828, Jedediah Smith traveled for the Rocky Mountain Fur Company to Southern California, then to the San Joaquin Valley to trap beaver at the French Camp settlement, just south of present-day Stockton. This was followed by a trapper party led by John Work in 1832 for the Hudson Bay Company. Several party members were infected with a fever illness, which spread to the local Native American population in the San Joaquin Delta when the two groups eventually clashed (Hanten and Giacinto 2021). This, as well as years of aggression from the Spanish then Mexican armies, decreased the Native American habitation on the slough as well. Overall, aside from a fur company camp, the area was not well settled prior to the 1840s (Kaiser et al. 2021).

Charles M. Weber and business partner William Gulnac acquired a land grant to the 48,747-acre Rancho Campo de los Franceses in 1843. Weber, a German immigrant, came to California with the 1841 Bidwell Bartleson Party, which was one of the earliest settlement parties from the eastern United States to successfully reach California. Weber and his wife Helen settled on the rancho and began planning the City of Stockton. Weber and Gulnac planned to raise livestock in the area but were particularly interested in the San Joaquin River Delta for its shipping potential and physical outlet into the San Francisco Bay. However, the Gold Rush altered the economic environment around Stockton after the discovery of gold at Coloma on the American River in 1848. Settlement at the Stockton location

began as early as 1847, and in 1849, the Webers hurriedly paid for a survey and plat for the town. The City of Stockton incorporated in 1850. The town’s early growth can be attributed to profiteering from the necessary shipping and freighting for the Gold Rush miners (Kaiser et al. 2021).

Though well positioned at the head of a navigable waterway to receive passengers and freight, Stockton’s location in a delta of the San Joaquin and Calaveras Rivers left it prone to seasonal flooding, and it took nearly 15 years (1850–1865) to build a permanent elevated, dry road out of town to French Camp. In the earliest years, tents, rather than permanent buildings dominated Stockton as the main building type. Nevertheless, the City grew quickly. In 1850, the population was marked as 2,500 people, but by 1854, it had grown to 7,000 people, making Stockton the third-largest city in California (Kaiser et al. 2021).

The City continued to grow, and in 1870, the population surpassed 10,000 persons. Chinese immigrants, restricted by the Chinese Exclusion Act in 1882, made up a significant portion of the population and commercial growth in the 1880s. During the 1890s, Stockton’s population had grown to over 14,000, and new projects were completed throughout the City. In 1890, a new courthouse was constructed, followed by a jail in 1893. Multistory brick buildings including banks, commercial buildings, schools, and hotels were also erected during the 1890s, leading to the nickname “Brick City” for Stockton (Kaiser et al. 2021).

Stockton remained a center for agriculture, commerce, and manufacturing into the twentieth century. By 1900, Stockton had several hundred manufacturing companies including canneries, ship builders, and farm equipment manufacturers (Kaiser et al. 2021).

**Resources Identified within the Project Site**

Within the St. Joseph’s Medical Center (“Medical Center”) campus or project site, no prehistoric or historic-era archaeological or built-environment resources have been identified. Central California Information Center (CCalC) records indicate that one previous cultural resource study has been conducted within the project site and 17 additional previous cultural resource studies have been conducted within 0.5 miles of the proposed project site. A summary of the prior cultural resource studies or reports prepared both within and around the project site are listed in Table 4.4-1.

**Table 4.4-1. Previous Site Investigations**

| Central California Information Center Report Number | Date | Title  | Author   |
|---|------|--|--|
| <b>Reports within the Project Site</b>              |      |  |  |
| SJ-08749  | 1999 | St. Joseph’s Medical Center: Caring Hearts and Healing Hands throughout a Century of Healing; San Joaquin Historian, Quarterly Journal of the San Joaquin Historical Society, Volume 13/ Number 3, Fall 1999 | Morrison, D., editor and San Joaquin Historian |
| <b>Reports within the ½-Mile Search Area</b>        |      |  |  |
| SJ-02219  | 1979 | Historic Survey Project Agreement, Final Report; Project Period June 1, 1978, to March 31, 1979.   | City of Stockton                               |
| SJ-02246  | 1980 | Completion Report, Historic Survey Project Agreement No. 36-09-006, Stockton, California; Project Period April 1, 1979, to March 31, 1980.   | Hermenau, H.                                   |

**Table 4.4-1. Previous Site Investigations**

| Central California Information Center Report Number | Date | Title   | Author                               |
|---|------|---|--------------------------------------|
| SJ-02247  | 1980 | Stockton Historic Resource Inventory II: Analysis Report, June 1980.  | Rapp, Linda                          |
| SJ-03995  | 2000 | Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield   | Nelson, W. J.                        |
| SJ-04976  | 1987 | The History of Streetcars in Stockton. The San Joaquin Historian, Vol. I (Summer 1987), No. 2:1-11.   | Burks, J. L.                         |
| SJ-05198  | 2003 | Historical Evaluation for the Pacific Medical Center Project, East Walnut, California, and Chestnut Streets and Wood Lane, Stockton, California.  | Marvin, J.                           |
| SJ-05341  | 1976 | Stockton State Hospital: A Century and a Quarter of Service. San Joaquin Historian Vol. XII, No. 3, pages 115-122.  | Starr, N. L.                         |
| SJ-06019  | 2006 | Collocation ("CO") Submission Packet, FCC Form 621, Sprint-Nextel Mudville, CA-3289A, San Joaquin County, California  | Supernowicz, D.                      |
| SJ-06345  | 2006 | Cultural Resources Final Report of Monitoring and Findings for the QWest Network Construction Project, State of California. SWCA Project No. 10715-180.   | SWCA<br>Environmental<br>Consultants |
| SJ-06740  | 2007 | Cultural Resources Survey Report and Unanticipated Discovery Plan for the Proposed Altamont Commuter Express Maintenance Facility, Stockton, California.  | Jurich, D.                           |
| SJ-07048  | 2008 | Cultural Resources Survey and Subsurface Testing Report: Altamont Commuter Express Maintenance Facility Project West of West Lane, Stockton, California.  | Jurich, D. M. and J. Martinez        |
| SJ-07446  | 2011 | Cultural Resources Study of Waterloo Project, Cingular Wireless Site No. SAC-007A, 1805 N. California Street, Stockton, San Joaquin County, California  | Supernowicz, D.                      |
| SJ-07539  | 2011 | Cultural Resources Inventory Report, Stockton "A" Reconductoring Project, San Joaquin County, California; ECORP Project No. 2011-123.   | Pappas, S., and L. Westwood          |
| SJ-08284  | 2011 | Cultural Resources Inventory Report for the Central Valley Independent Network Fiber Optic Communications Network Project, California (Calaveras, Merced, San Joaquin, Stanislaus, and Tuolumne Counties in the CCalC Area of Responsibility) | AECOM                                |
| SJ-08782  | 2011 | Phase I Cultural Resources Assessment For University Park Alternative- Veterans Affairs Outpatient Clinic Project, San Joaquin County, California.  | Marks, Brian, and Brad Brewster      |
| SJ-08786  | 2000 | California State University, Stanislaus Stockton Center. Former Site of the Stockton Developmental Center and Insane Asylum of California Stockton, California. Cultural Resources Survey   | Architectural Resources Group        |
| SJ-08809  | 2016 | Positive Train Control Filing Subject to Expedited Treatment Under Program Comment, Union Pacific   | Blazenko, S. J.                      |

**Table 4.4-1. Previous Site Investigations**

| Central California Information Center Report Number | Date | Title  | Author |
|---|------|--|--------|
|   |      | Railroad - PTC Wayside Poles - Sacramento Subdivision One (1) Excluded PTC Pole (Mile Post 94.94) in San Joaquin County, California - TCNS #141507 |        |

Source: Central California Information Center, 2020.

### Previously Identified Cultural Resources

CCaIC records indicate that no archaeological or built-environment resources have been identified and are on file within or adjacent to the project site. A total of 38 resources are on file within the 0.5-mile records search area.

### Archaeological Resources

No previously recorded prehistoric or historic-era resources or sites were identified either within the project site or within a 0.5-mile radius of the site. No prehistoric resources were identified as a part of the cultural resource study for the site (see Appendix E).

### Buried Site Sensitivity

The project site is located within the Great Valley Geomorphic Province of California, a large basin comprised of the Sacramento and San Joaquin Valleys, bounded by the Serra Nevada and Coast Ranges to the east and west respectively. The site is situated in the floodplain of San Joaquin River, approximately 0.9 miles (1.5 kilometers) northeast of the nearest existing waterway. Soils within the site are entirely characterized as Jacktone-Urban land complex soil series, a type typically composed of moderately deep to hardpan layer of alluvium commonly found on somewhat poorly drained basin floors (Hanten and Giacinto 2021). Jacktone soil series are derived from alluvium from mixed sources. The project site’s proximity to the San Joaquin River and the soil type indicated the vicinity has been subject to occasional periodic flooding. The site is very level consisting of slopes ranging from 0% to 2%. Based on review of this information and ignoring surface disturbances and development, the flat topography and proximity to an active waterway indicate the project site would have a low to moderate suitability for the formation or continued presence of buried cultural deposits or surface manifestations.

### Built Environment Resource: Historic-Era St. Joseph’s Medical Center

The following is an overview of the history of development of the St. Joseph’s Medical Center, please see Appendix E for more specific detail. The project site or Medical Center campus is generally bounded by East Cleveland Street to the northwest, North California Street to the south and southwest, East Harding Way to the southeast, and Cemetery Lane to the north and northeast and currently includes 24 parcels and 25 buildings along with numerous accessory structures. There are five (5) properties located both within and immediately adjacent to the project site that contain buildings over 45 years of age and include: St. Joseph’s Medical Center Complex (1638 N. California Street and 1800 N. California Street/542 McCloud Avenue [Assessor Parcel Numbers (APNs) 127-190-32 and 127-180-44]); 534 E. Maple Street (APN 127-190-30); 425 E. Harding Way (APN 127-150-39); 445 E. Harding Way (APN 127-150-51); and 564 East Cleveland Street (APN 127-164-06). Table 4.4-2 lists the buildings over 45 years in age. Because these identified properties within and immediately adjacent to the proposed project site contain buildings that are over 45 years old, they are subject to consideration as potential “historical resources” under the

California Environmental Quality Act (CEQA). The historic significance of these properties is evaluated in this section. In addition, the Medical Center campus is located across Cemetery Lane from the San Joaquin Catholic Cemetery located at 719 E. Harding Way, which was established in 1861.

St. Joseph's was founded as a care facility for elderly men in 1899 by Father William B. O'Connor. O'Connor immigrated to the United States in 1868 from Ireland and lived in San Francisco briefly before being sent to Stockton to lead St. Mary's Catholic parish in 1872. In 1875, O'Connor invited Dominican-order nuns from San Rafael to establish a convent and school in Stockton, St Agnes' Academy for girls, followed by St. Joseph's School for girls and St. Mary's School for boys. O'Connor negotiated land for all the schools, convent, and churches with Charles Weber, town founder, who donated the land for the schools from his personal holdings (Kaiser et al. 2021).

In 1884, O'Connor purchased a 9.23-acre parcel from Alonzo McCloud. The tract was just north of the city limits, on the electric rail car line, and adjacent to other church properties, including a cemetery. In 1898, O'Connor announced plans for a convalescent home for elderly men, to be built on the McCloud tract. The St. Joseph's Home and Hospital buildings were designed by local architect W.W. Oates and officially opened in February 1900. The home consisted of the main home building and two (2) side cottages. In 1900, a 14-room annex serving as quarters for the men's home was added. Three (3) Dominican sisters staffed the facility for the first year. In 1902, a nurse's training program was employed at St. Joseph's to train new medical staff as well as keep the cost of care in the home to a minimum. In 1905 another new building, a 19-room building separate for the men, was added to the southeast portion of the property (Kaiser et al. 2021).

In 1914, the hospital opened an accredited maternity department, conforming to a recent California Board code that the hospital must have an official license. In 1916, a new building was added to the northwest corner of the campus, specifically dedicated as a medical facility, instead of a joint facility with the men's home. The new building was a two (2)-story, Mission Revival style hospital, complementing the existing St. Joseph's Home and Hospital buildings. The new building was designed by architect, Walter King. In 1926, a third story was added to this building, increasing the capacity of the hospital overall to 125 beds. By 1927, the hospital consisted of a medical and surgical department, children's ward, obstetrical department, chapel, sisters' home (convent), the Old Men's Home, a laundry, and a dormitory for the nurses' school (Kaiser et al. 2021).

The hospital was accredited by the American College of Surgeons in 1928, and the same year, a new nurses' home and convent was under construction, now known as the McCloud Building. After the war, the population boom throughout all of California in the 1940s and 1950s quickly overwhelmed hospital capacity. In 1952, St. Joseph's began a charity drive to pay for a new hospital wing to add the necessary beds to keep up with Stockton's growing population and meet state standards. The expansion was mostly completed in 1954; however, subsequent updates to this section were not finalized until 1957. As the hospital increased its operations, the Old Men's Home phased out operations in the 1950s and closed in 1959. The hospital's West Wing expansion was completed in 1962. In 1967, work began on a "coronary care unit," now called the East Wing, which was completed in 1970. Expansions continued with a four-story addition that was completed in fall 1970. The addition included 300 new hospital beds and a new maternity department, and expansions to the Emergency Department, medical library, and medical records department. Another addition, the Southeast Wing, was started in 1973 and completed in 1978, adding a radiology department, nuclear medicine lab, new surgery facilities, post-surgery recover ward, and an intensive care department (Kaiser et al. 2021).

During the 1980s, St. Joseph's began a period of aggressive growth on both the main California Street campus and off-site facilities. By 1984, St. Joseph's Hospital was the largest medical/surgical hospital between Sacramento and Fresno (Kaiser et al. 2021). In 1985, construction began on a large addition on the south part of the hospital,



which opened in 1992 as an outpatient surgery wing, a dedicated cancer center, and a new main entrance and intake for the hospital. In 1994 the hospital again began an expansion program that led to the Women and Children’s Pavilion on the southern portion of the property (opened 1994) and a new, dedicated Heart Center wing which opened in 1997. In 1994, St. Joseph’s opened a new Heart & Vascular Institute that today houses its three cardiac catheterization labs, two open-heart surgery rooms, and a cardiac hybrid suite (Kaiser et al. 2021).

Table 4.4-2 includes buildings over 45 years in age present on the Medical Center campus.

**Table 4.4-2. Buildings Over 45 Years in Age**

| Building Name/Address   | APN                      | Date(s) of Construction |
|---|--------------------------|-------------------------|
| St. Joseph’s Medical Center Complex <ul style="list-style-type: none"> <li>▪ 1638 North California Street</li> <li>▪ 1800 North California Street and 542 McCloud Avenue</li> </ul> | 127-190-32<br>127-180-44 | 1899–2009               |
| 534 East Maple Street   | 127-190-30               | 1968                    |
| 425 East Harding Way  | 127-150-39               | 1963                    |
| 445 East Harding Way  | 127-150-51               | C.1975                  |
| 564 East Cleveland Street   | 127-164-06               | 1951                    |

Source: Appendix E.

### Tribal Cultural Resources

In accordance with AB 52, a letter was sent to the Native American Heritage Commission (NAHC) requesting review of the Sacred Lands files and for a list of interested Native American tribes and individuals. The NAHC provided names of nine (9) tribes to be notified regarding Sacred Lands because they are culturally affiliated with the location of the project site and the NAHC recommended contacting them for further information. The City sent letters to all the tribes requesting notification, pursuant to AB 52. On March 2, 2022, the City received a letter from the Wilton Rancheria requesting consultation. This was the only letter the City received. The City set up a meeting with a representative from the Wilton Rancheria on and October 6, 2022. No one from the Rancheria attended the meeting but they did send an email on October 11, 2022, requesting a tribal monitor be present during all ground disturbing activities. The Rancheria has not indicated if the site may contain tribal cultural resources.

### 4.4.3 Regulatory Setting

Federal, state, and local governments have developed laws and regulations designed to protect and preserve significant cultural resources that may be affected by actions that they undertake or regulate. The National Historic Preservation Act and CEQA are the basic federal and state laws governing the preservation of historic, archaeological, and TCRs of national, regional, state, and/or local or tribal significance within the state.

Cultural resources are defined as prehistoric or historic-period archaeological resources, Native American resources of cultural and religious significance, historic-period architectural resources, and historic-period engineering features, including canals and railroad resources. TCRs are defined as 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 or that is either 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 (PRC) Section 5020.1(k), or 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 PRC Section 5024.1. In applying the

criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the new resource to a California Native American tribe.

## Federal Regulations

Federal regulations for cultural resources are primarily governed by Section 10 of the National Historic Preservation Act of 1966, which applies to actions taken by federal agencies. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing on the National Register of Historic Places (NRHP). Section 106 requires agencies to take into account the effects of their undertakings on historic properties and affords the federal Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings.

Archaeological site evaluations assess the potential of each site to meet one or more of the criteria for NRHP eligibility based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and records searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site. The American Indian Religious Freedom Act, Title 42 United States Code, Section 1996, protects Native American religious practices, ethnic heritage sites, and land uses.

## State Regulations

### Section 7050.5 of the California Health and Safety Code

Section 7050.5 of the California Health and Safety Code states that it is a misdemeanor to knowingly disturb a human grave. In the unlikely event that human graves are encountered, work should halt in the vicinity and the County Coroner should be notified immediately. At the same time, an archaeologist should be contacted to evaluate the situation and grave. If the human remains are determined to be of Native American origin, the Coroner must contact the NAHC within 24 hours of identification. The code states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in section 5097.98 of the Public Resources Code.

## Tribal Consultation

AB 52, enacted in 2014, amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that TCRs must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. Section 21074 describes a TCR as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A TCR is either:

- On the California Register of Historical Resources or a local historic register; Eligible for the California Register of Historical Resources or a local historic register; or
- 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 Section 5024.1.

AB 52 formalizes the lead agencies tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

PRC Section 21084.2 that “[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.” Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The consultation shall be considered concluded when either of the following occurs: (1) The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (PRC Section 21080.3.2[b]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

#### California Environmental Quality Act

Under CEQA provisions separate and apart from those created by AB 52, public agencies must consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Pursuant to PRC Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Section 21083.2 requires agencies to determine whether proposed projects would have effects on “unique archaeological resources.”

“Historical resource” is a term with a defined statutory meaning. (See PRC, Section 21084.1 and CEQA Guidelines, Section 15064.5, subdivisions (a) and (b).) The term embraces any resource listed in or determined to be eligible for listing in the California Register of Historic Resources (CRHR). The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be “historical resources” for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and 14 CCR Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource potentially eligible for the CRHR.

Potential eligibility also rests upon the integrity of the resource. Integrity is defined as the retention of the resource’s physical identity that existed during its period of significance. There are seven aspects of integrity including setting,

design, workmanship, materials, location, feeling and association. For historic structures, CEQA Guidelines Section 15064.5, subdivision (b)(3), indicates that a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) is considered to have mitigated impacts to a less-than-significant level.

Archaeological resources can sometimes qualify as "historical resources." (14 CCR Section 15064.5 subdivision (c)(1).) CEQA Guidelines Section 15126.4[b][3] lays out principles for mitigating impacts to historical resources of an archaeological nature. It provides that "[p]ublic agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

- (A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.
- (B) Preservation in place may be accomplished by, but is not limited to, the following:
  - 1. Planning construction to avoid archaeological sites;
  - 2. Incorporation of sites within parks, greenspace, or other open space;
  - 3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.
  - 4. Deeding the site into a permanent conservation easement.
- (C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.
- (D) Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center."

As noted above, CEQA also requires lead agencies to consider whether projects will affect "unique archaeological resources." PRC Section 21083.2, subdivision (g), states that "'unique archaeological resource' means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Treatment options under Section 21083.2(b) include activities that preserve unique archaeological resources in place in an undisturbed state. The operative principles and priorities are very similar to those set forth above for historical resources of an archaeological nature. Under Section 21083.2(d), excavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archaeological resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the EIR. Subdivisions (c) and (e) of Section 21083.2 sets forth limits on the amount and costs of mitigation than can be imposed on projects.

Advice on procedures to identify cultural resources, evaluate their importance and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to, museums, historical commissions, associations and societies, be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, associated grave goods regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains.

While Section 7050.5(b) of the California Health and Safety code specifies protocol when human remains are discovered, CEQA Guidelines Section 15064.5, subdivision (e), also specifies steps that should be taken whenever human remains are uncovered, beginning with the cessation of excavation activities in areas suspected of overlying remains, and contacting the county coroner to determine if the cause of death needs to be investigated. If the county coroner determines that the remains are those of Native Americans, the coroner is responsible for contacting NAHC within 24 hours. The NAHC is responsible for identifying the most likely descendent of the deceased Native American, who may then make recommendations to the landowner or individual responsible for excavation regarding the means of treating or disposing of the remains. The Guidelines also make provision for appropriate burial of the remains if the NAHC cannot identify a most likely descendent, if the identified individual fails to make recommendations, or if the recommendations are not acceptable to the landowner.

Section 15064.5(d) also directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

Government Code Sections 65352.3, 65352.4 (also called SB 18) requires that, prior to the adoption or amendment of a general plan, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction. The Governor's Office of Planning and Research has opined that these obligations also extend to Specific Plans. (*Tribal Consultation Guidelines, Supplement to General Plan Guidelines*. p. 3 (Nov. 2005) [acknowledging that "SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plan," but concluding that SB 18 applies to specific plans because "existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans"].)

For purposes of CEQA, to determine whether cultural resources could be significantly affected, the significance of the resource itself must first be determined. Section 15065 of the CEQA Guidelines mandates a finding of significance if a project would eliminate important examples of major periods of California history or prehistory.

In addition, pursuant to Section 15064.5 of the CEQA Guidelines, a project could have a significant effect on the environment if it "may cause a substantial adverse change in the significance of an historical resource." A

“substantial adverse change” means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is impaired.” Material impairment means altering “...in an adverse manner those characteristics of an historical resource that convey its historical significance and its eligibility for inclusion in the California Register of Historical Resources.” Impacts to those cultural resources not determined to be significant according to the significance criteria described above are not considered significant for the purposes of CEQA.

### California Register of Historic Resources

The State Historical Resources Commission has designated the CRHR for use by the state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California’s historical resources. The CRHR is the authoritative guide to the state’s significant historical and archaeological resources. It encourages public recognition and protection of resources and determined eligibility for state historic preservation grant funding.

All buildings on the project site were evaluated and it was determined that none of the buildings are associated with events that have made significant contributions to the broad patterns of the local or regional history or the cultural heritage of California or the United States. In addition, there is no evidence that the buildings have made significant contributions to history. The buildings were determined to not be eligible for listing in the NRHP, the CRHR, as Stockton Landmarks, or as Stockton Structures of Merit due to a lack of historical associations, architectural merit, and compromised integrity. As such, these properties do not appear to be a historical resource for the purposes of CEQA.

### Local Regulations

#### Envision Stockton 2040 General Plan

The City’s Envision Stockton 2040 General Plan Land Use Element includes the following goals, policies and actions related to the recognition and preservation of cultural resources that are relevant to evaluation of the proposed project:

**Goal LU-3. Authentic Neighborhoods.** Protect and preserve the authentic qualities of Stockton’s neighborhoods and historic districts.

**Policy LU-3.1.** Ensure that exterior remodels and the siting, scale, and design of new development are compatible with surrounding and adjacent buildings, public spaces, and cultural and historic resources.

- Action LU-3.1A. Implement local and State incentives for the preservation and reuse of historic buildings and heritage housing in Downtown and other key areas.
- Action LU-3.1B. If development has the potential to adversely affect buildings 50 years old or older, require a historical resources survey to be completed by a professional consistent with the Secretary of the Interior’s Standards for Architectural History.
- Action LU-3.1C. Require historic structures, along with landscape, original roadways, sidewalks, and other public realm features in historic neighborhoods, to be maintained, restored, or repaired where ever possible. If alterations are proposed to historical buildings, require those changes to meet the Secretary of the Interior’s Standards for Treatment of Historic Properties.

**Goal LU-5. Protected Resources.** Protect, maintain, and restore natural and cultural resources.



Policy LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.

- Action LU-5.2D. Require the following tasks by a qualified archaeologist or paleontologist prior to project approval:
  - Conduct a record search at the Central California Information Center located at California State University Stanislaus, the University of California Museum of Paleontology at Berkeley, and other appropriate historical or archaeological repositories.
  - Conduct field surveys where appropriate.
  - Prepare technical reports, where appropriate, meeting California Office of Historic Preservation or other appropriate standards.
  - Where development cannot avoid an archaeological or paleontological deposit, prepare a treatment plan in accordance with appropriate standards, such as the Secretary of the Interior's Standards for Treatment of Archaeological Sites.
- Action LU-5.2E. Continue to consult with Native American representatives, including through early coordination, to identify locations of importance to Native Americans, including archaeological sites and traditional cultural properties.
- Action LU-5.2F. If development could affect a tribal cultural resource, require the developer to contact an appropriate tribal representative to train construction workers on appropriate avoidance and minimization measures, requirements for confidentiality and culturally appropriate treatment, other applicable regulations, and consequences of violating State laws and regulations.
- Action LU-5.2G. Comply with appropriate State and federal standards to evaluate and mitigate impacts to cultural resources, including tribal, historic, archaeological, and paleontological resources.

## 4.4.4 Impacts and Mitigation Measures

### Methods of Analysis

A formal records search was conducted for the project site, including a 0.5-mile radius, by Dudek through the CCalC in 2020. Research consisted of a literature search of the following databases: a California Historical Resources Information System records search, NAHC Sacred Lands File, NRHP, Office of Historic Preservation, U.S. Army Corps of Engineers, and Office of Historic Preservation Historic Preservation District. In addition, historical maps were reviewed by Dudek to understand development of the project site and surrounding properties. A pedestrian survey of the project site by archaeologists was determined not necessary or appropriate because the entire site is obscured by buildings, surface parking areas, or other development. Potential for yet identified archaeological resources was reviewed against geologic and topographic GIS data for the area and information from other nearby projects. The results are included in a Cultural Resources Letter Report provided in Appendix E. The "archaeological sensitivity," or potential to support the presence of a buried prehistoric archaeological deposits, is generally interpreted based on geologic landform and environmental parameters (i.e., distance to water and landform slope).

As part of the cultural resource evaluation efforts to identify historical resources research included an intensive pedestrian level survey by qualified architectural historians of buildings on the Medical Center campus, building development and archival research, development of an appropriate historic context, and recordation and evaluation

of five properties for historical significance and integrity in consideration of NRHP, CRHR, and local eligibility requirements. The results of this research is included in the Historical Resources Inventory and Evaluation Report provided in Appendix E.

The term “historical resource” includes but is not limited to “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (PRC Section 5020.1[j]).

### Thresholds of Significance

Based on Public Resources Code Sections 21083.2[h], 21084.1 and 21084.2, and the questions posed in the portions of Appendix G to the CEQA Guidelines dealing with Cultural Resources and TCRs, a significant impact would occur if development of the proposed project would do any of the following:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.
- 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:
  - i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
  - ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code 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 new resource to a California Native American tribe.

### Project Impacts

Impact 4.4-1      **The proposed project would not cause a substantial change in the significance of a historical resource.**

Under this CEQA threshold impacts to properties considered CEQA historical resources are assessed. Properties that require consideration as CEQA historical resources are buildings, structures, objects, landscapes, or historic districts that have been found to be eligible or are formally listed in the NRHP, CRHR or are designated as historically significant under applicable local criteria. The purpose of this impact analysis section is to determine if the project may cause a substantial adverse change in the significance of a CEQA historical resource (14 CCR 15064.3).

As detailed in Chapter 2, Project Description, the project proposes a Master Development Plan (MDP) that establishes the foundation for the hospital expansion and for future growth of the Medical Center. The MDP identifies five phases of development with Phases 1–4 to include the following uses: a new Acute Care Hospital Tower, multistory Parking Structure, Central Utility Plant, expansion of the existing Generator building, and other required support facilities within the Medical Center campus boundaries. Phase 5 is considered a future phase which may include

expansion of the Acute Care Hospital Tower along with additional parking. To accommodate the first four phases of the project, nine buildings and various other components would be removed, including the Main Wing, McCloud Building, 4th floor of the North Wing, 554 and 564 E. Cleveland Street, Plant Maintenance building, and three small storage buildings.

Project construction would require building demolition, site clearing, grading, and trenching for utilities. Construction activities would result in destruction or modifications of buildings that are older than 45-years in age (historic era). As such, an evaluation under all applicable historical significance criteria was required to determine if any buildings may be impacted that require consideration as CEQA historical resources.

A Historical Resources Inventory and Evaluation Report was prepared that addressed historic era buildings that may sustain impacts resulting from project implementation (Appendix E). This report was conducted by Dudek starting in 2020 and as noted in the report and in Section 4.4.1, Environmental Setting above, five (5) historic-era built environment buildings were identified within the project site and evaluated, as shown in Table 4.4-2. Based on the evaluation, none of the sites were found to meet any of the criteria or integrity considerations to qualify for listing in the NRHP, the CRHR, as Stockton Landmarks, or as Stockton Structures of Merit. Therefore, none of the historic era buildings located within the project site meet the definition of “historical resource” under CEQA (PRC Section 21084.1 and CEQA Guidelines Section 15064.5[a]). The City’s 2040 General Plan includes policies and actions designed to address potential impacts to historic buildings. Specifically, Policy LU-3.1 and Actions LU-3.1B requires If development has the potential to adversely affect buildings 50 years old or older, a historical resources survey is to be completed consistent with the Secretary of the Interior’s Standards for Architectural History. The Historical Resources Inventory and Evaluation Report prepared for the project complies with this policy.

In conclusion, there are no buildings, structures, objects, landscapes, or historic districts that qualify as CEQA historical resources located within the project site. Therefore, as project construction and implementation would not result in impacts to any CEQA historical resources the project would result in **no impact**.

### Mitigation Measures

None required.

**Impact 4.4-2      The proposed project could cause a substantial adverse change in the significance of an historical resource of an archaeological nature or a unique archaeological resource.**

Archaeological resources include prehistoric and historic-era artifacts, objects, or sites. No prehistoric archaeological resources or historic-era archaeological resources were identified within the project site through the records search and literature review conducted by Dudek (see Appendix E). However, development of the project site would include ground-disturbing activities to construct new buildings, parking areas, roads, and trenching for new utilities. Construction activities could result in damaging or destroying unknown archaeological resources. Archaeological resources are often difficult to identify from surface evidence alone and there may be buried cultural deposits in areas with appropriate soils. The project site includes Jacktone soil series which are derived from alluvium containing mixed sources. Based on the underlying soils the project site would have a low to moderate suitability for the formation or continued presence of buried cultural deposits. Such subsurface cultural deposits are most likely to be exposed within three feet of the surface during activities requiring grading and other ground preparation.

The City's 2040 General Plan includes policies and actions in the event any archeological resource is uncovered. Specifically, Action LU-5.2D requires a qualified archeologist conduct a records search, field surveys, and prepare technical reports, where appropriate, and if development cannot avoid the resource prepare a treatment plan, in accordance with appropriate standards.

Because it is not known if any prehistoric or historic-era archaeological resources exist and the underlying soils indicate a low to moderate suitability for resources to be present, the project has the potential to unearth unknown resources resulting in a substantial adverse change in the significance of the resource. The loss of and/or substantial damage to undiscovered historic-era or prehistoric archaeological resources is considered a **potentially significant impact**.

### Mitigation Measures

Mitigation Measure 4.4-2 has been developed in order to ensure that potential impacts to historic-era and prehistoric cultural resources are appropriately managed. Mitigation Measure 4.4-2 would require worker training for the identification of and notification protocols for any unanticipated cultural resource discoveries and the stoppage of work within 50 feet of finds until their significance can be evaluated by a qualified archaeologist. With these mitigation measures implemented, the potential significant impacts to archaeological resources would be reduced to less than significant.

#### MM 4.4-2 Unknown Subsurface Resources

- a) Prior to construction, construction personnel shall receive brief "tailgate" training by a qualified archaeologist in the identification of archaeological resources and protocol for notification should such resources be discovered during construction work. Such tailgate training shall include discussion of the criteria that cause archaeological resources to qualify as either unique archaeological resources under Public Resources Code Section 21083.2, subdivision (g), or an historical resource of an archaeological nature under CEQA Guidelines Section 15064.5, subdivision (1)(a).
- b) In the event archaeological resources (e.g., sites, features, or artifacts) are exposed during construction activities, all construction work occurring within 50 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find (i.e., determine whether the resources qualify as unique archaeological resources or historical resources of an archaeological nature) and determine whether or not additional study is warranted. Upon such a work stoppage, the City of Stockton's Community Development Director (CDD) shall be notified immediately.
  - If it is determined that unique archaeological resources or historical resources of an archaeological nature are present, the qualified archaeologist shall develop mitigation or treatment measures for consideration and approval by the City's CDD. Mitigation shall be developed and implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), preservation in place may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If approved by the City's CDD, such measures shall be

implemented and completed prior to commencing further work for which grading or building permits were issued, unless otherwise directed by the City's CDD. Avoidance or preservation of unique archaeological resources or historical resources of an archaeological nature shall not be required where such avoidance or preservation in place would preclude the construction of important structures or infrastructure or require exorbitant expenditures, as determined by the City's CDD. Where avoidance or preservation are not appropriate for these reasons, the professional archaeologist, in consultation with the City's CDD, shall prepare a detailed recommended treatment plan for consideration and approval by the City's CDD, which may include data recovery. If employed, data recovery strategies for unique archaeological resources that do not also qualify as historical resources of an archaeological nature shall follow the applicable requirements and limitations set forth in Public Resources Code Section 21083.2. Data recovery will normally consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of recovering important scientific data contained within the unique archaeological resource or historical resource of an archaeological nature. The data recovery plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals. If data recovery is determined by the City's CDD to not be appropriate, then an equally effective treatment intended to address the specific themes or research questions of significance associated with the data of that cultural resource shall be proposed, approved by the City's CDD, and implemented. Work may not resume within the no-work radius until the City's CDD, in consultation with the professional archaeologist, determines that the site either: (1) does not contain unique archaeological resources or historical resources of an archaeological nature; or (2) that the preservation and/or treatment measures have been completed to the satisfaction of the City's CDD.

**Impact 4.4-3      The proposed project could potentially damage human remains during construction activities.**

Development of the proposed project could result in the destruction, damage, or discovery of human remains on the project site during site disturbing construction activities, particularly site clearing, grading, trenching and excavation. As stated above, the Medical Center campus is located across the street from the San Joaquin Cemetery which was established in 1861. Remains, including those of undocumented origin or association, have been identified outside of the existing cemetery boundary. Given the proximity of the site to the San Joaquin Cemetery, it is considered sensitive for the presence of human remains, including those interred outside of formal cemeteries. Therefore, there is the potential project construction could have the potential to encounter human remains.

Section 7050.5(b) of the California Health and Safety code specifies protocol to follow in the event human remains are discovered. In addition, CEQA Guidelines Section 15064.5(e), specifies steps that should be taken whenever human remains are uncovered, beginning with the cessation of excavation activities in areas suspected of overlying remains, and contacting the county coroner to determine if the cause of death needs to be investigated. If the county coroner determines that the remains are those of Native Americans, the coroner is responsible for contacting NAHC within 24 hours. The NAHC is responsible for identifying the most likely descendent of the deceased Native American, who may then make recommendations to the landowner or individual responsible for excavation regarding the means of treating or disposing of the remains. The CEQA Guidelines also make provision for

appropriate burial of the remains if the NAHC cannot identify a most likely descendent, if the identified individual fails to make recommendations, or if the recommendations are not acceptable to the landowner.

Compliance with Section 7050.5 of the California Health and Safety Code as well as CEQA Guidelines Section 15064.5 would generally ensure impacts to previously unrecorded human remains would be reduced to less than significant. However, there is an elevated potential for encountering historic-era burials and Health and Safety Code and the CEQA Guidelines do not specify the appropriate course of action or methods for respectful treatment of sites that qualify as a Native American Cultural Place. Therefore, if inadvertent impacts to human burials were to occur and this discovery were to classify as a Native American Cultural Place, including a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine, impacts to this resource would be considered **potentially significant**.

### Mitigation Measures

Mitigation Measure 4.4-3 establishes the appropriate course of action and methods for respectful treatment in the event human remains unearthed are Native American. Compliance with this measure would ensure the proper procedures are followed in the event the project site is considered a Native American Cultural Place and impacts would be reduced to less than significant.

**MM 4.4-3 Treatment of Human Remains.** If human remains are discovered at any project construction site(s) during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and the City of Stockton (City), the San Joaquin County coroner, and a qualified professional archaeologist shall be notified immediately. This boundary may be adjusted to meet the demands of ongoing work, so long as the location of all potential remains are effectively protected. The coroner shall examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands, in accordance with Section 7050(b) of the Health and Safety Code. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified by phone within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The Most Likely Descendent shall provide recommendations for management of these remains within 48 hours of being provided access to this site, or as otherwise agreed upon by the land owner and the City.

The City shall be responsible for approval of recommended mitigation as it deems appropriate, taking into account the provisions of state law, as set forth in CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Section 5097.98 through Section 5097.994, as applicable. The applicant may choose to retain a Secretary of the Interior qualified archaeologist to review recommendations and to facilitate communication concerning human remains between the landowner and the Most Likely Descendant. If a find is archaeological in nature, Mitigation Measure 4.4-2 outlines required strategies for management.

**Impact 4.4-4 The proposed project could cause an adverse change in the significance of a tribal cultural resource.**

TCRs are defined as defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, in the



national or state register of historical resources, or listed in a local register of historic resources, or that the lead agency determines, in its discretion, is a TCR (PRC Section 5020.1).

Development of the proposed project could cause substantial adverse changes in the significance of a TCR (site, feature, place, cultural landscape, sacred place, or object) with cultural value to a California Native American tribe. A review of the NAHC Sacred Lands File was conducted as part of the cultural survey conducted for the project and the search “failed to indicate the presence of Native American cultural resources in the immediate project area” (see Appendix E). The proposed project is subject to compliance with AB 52 to ensure that consultation with tribes is conducted and tribes are allowed the opportunity to provide comments, monitor, and preserve TCRs if found during construction. In February 2022, the City sent letters to ten (10) tribes provided by the NAHC that may have knowledge of cultural resources in or near the project area. A response was received from the Wilton Rancheria requesting consultation. The City set up a meeting with representatives of the Wilton Rancheria on October 6, 2022. No one from the Rancheria attended the meeting but they did send an email on October 11, 2022, requesting a tribal monitor be present during all ground disturbing activities. The Rancheria has not indicated if the site may contain tribal cultural resources.

The City’s 2040 General Plan includes Actions LU-5.2E and LU-5.2F which require the City to consult with Native American representatives to identify locations of archeological and traditional cultural properties important to Native Americans and if development could affect a TCR the developer is required to contact a tribal representative to train construction workers on appropriate avoidance and minimization measures and on culturally appropriate treatment.

The Rancheria requested to have a tribal monitor be present during all earth moving and grading activities to ensure that any potential TCRs found during project ground disturbance be protected. Compliance with the notification and outreach required under AB 52 is complete.

Based on information provided, no known TCRs have been identified that would be impacted by the proposed project. Since ground-disturbing construction activities have the potential to impact TCRs, this impact would be considered **potentially significant**.

### Mitigation Measures

Mitigation measure 4.4-4 directly integrates management recommendations provided by consulting tribes in order to ensure that potential impacts to TCRs are appropriately managed. TCRs are most commonly also cultural resources and, as such, management strategies between these two resource types must be coordinated. Mitigation Measure 4.4-2 would require notification protocols for unanticipated cultural resource discoveries and the stoppage of work within 100 feet of finds until their significance can be evaluated. Mitigation Measure 4.4-3 provides management strategies be applied in the event of an unanticipated discovery of human remains. With these mitigation measures implemented, the potential significant impacts to archaeological resources would be reduced to **less than significant**.

MM 4.4-4 **Tribal Cultural Resources**. To minimize the potential for destruction of or damage to existing or previously undiscovered burials, archaeological and tribal cultural resources and to identify any such resources at the earliest possible time during project-related earthmoving activities, the project applicant and its construction contractor(s) will implement the following measures:

- Paid Native American monitors, compensated by the project applicant, from culturally affiliated Native American Tribes shall be invited to monitor the vegetation grubbing, stripping, grading or other ground-disturbing activities in the project area to determine the

presence or absence of any cultural resources. Native American representatives from cultural affiliated Native American Tribes act as a representative of their Tribal government and shall be consulted before any cultural studies or ground-disturbing activities begin.

- Consulting tribes and their designated Native American monitors and/or representatives shall have the authority to identify sites or objects of significance to Native Americans and to request that work be temporarily stopped, diverted or slowed if such sites or objects are identified within the direct impact area. Native American representatives shall be the primary consulted authority on Tribal Cultural Resources and shall recommend appropriate treatment of such sites or objects. All management strategies shall be in compliance with regulatory conditions and be implemented in coordination with mitigation pertaining to cultural resources and human remains (see mitigation measures 4.4-2 and 4.4-3).

### Cumulative Impacts

Cumulative impacts on cultural resources which include CEQA historical resources (primarily built environment), archaeological resources, TCRs, and human remains consider whether impacts of the proposed project together with other projects in the larger region, when taken as a whole, substantially diminish the number of such resources within the same or similar context or type.

The cumulative context for cultural resources includes future development within the City of Stockton associated with buildout of the 2040 General Plan. The cumulative impact to these non-renewable resources are generally considered in terms of their cultural and/or informational value based on their resource type, context and relationships to the surrounding landscape and/or tribal histories. With regard to cultural resources (including historical built environment and archaeological resources), the importance of this type of information is revealed through review of the larger historical and archaeological record which, in turn, is dependent on the contribution of shared data resulting from technical investigations. TCRs, as well as human remains of Native American origin, while also variable in type, use, and location, are individually identified and assigned value by California Native American tribes.

As discussed under Impact 4.4-1, there are no built environment properties that qualify as CEQA historical resources identified on the proposed project site; thus, the project would not contribute to a cumulative impact to built environment resources and is not further evaluated.

**Impact 4.4-5      The proposed project, in conjunction with, past, present, and reasonably foreseeable probable future projects would not have a cumulative impact on archeological resources, tribal cultural resources and human remains.**

As discussed previously, the proposed project as presently designed would not directly impact any known prehistoric cultural resources. No prehistoric or historic-era archaeological resources, human remains, or TCRs have been identified on the proposed project site and the area is considered to be of low to moderate potential to contain unanticipated cultural resources or TCRs. However, urban development in the City of Stockton and San Joaquin County has resulted in the loss and alteration of significant cultural resources, and it is reasonable to assume that past, present and future development activities would continue to damage and/or destroy significant cultural resources and TCRs. Given past, present and future development in the City and County and because all significant cultural resources are unique and non-renewable, all adverse effects or negative impacts contribute to a dwindling resource base, this is considered a significant cumulative impact.

As discussed in the regulatory setting, numerous laws, regulations, and statutes, on both the federal and state levels, seek to protect cultural resources including TCRs. Future projects within the region would also be subject to the same requirements as the proposed project. Technical studies and consultation would be required as part of the due diligence process and would result in the documentation and appropriate consideration of any resources that may be present. Regulations in the region for management of TCRs and cultural resources would apply to development within the City. For archaeological resources, cumulative projects may require extensive excavation in culturally sensitive areas, and thus may result in adverse effects to known or previously unknown, inadvertently discovered archaeological resources. There is the potential for accidental discovery of other archaeological resources by the proposed project as well as by cumulative projects.

Development within the City is subject to the City's 2040 General Plan, which provides policies and actions that safeguard cultural resources from unnecessary impacts. These include General Plan Policy LU-5.2 Action LU-5.2D which requires future projects must conduct a records search, conduct field surveys, and where development cannot avoid an archeological resource, a treatment plan must be prepared. Action LU-5.2E requires coordination and consultation with the local tribes and Actions LU-5.2F and LU-5.2G requires proper training for construction personnel for avoidance of TCRs and compliance with appropriate federal, state and local standards to evaluate and mitigate impacts to cultural resources, including tribal, historic, archaeological. The City's 2040 General Plan EIR determined that implementation of the General Plan would result in a less than cumulatively considerable contribution to impacts to cultural resources, including human remains, due to implementation of General Plan policies and actions. Therefore, there is no existing significant cumulative impact.

The City's General Plan EIR did not identify that future buildout of the City as well as the County in combination with past, present, and probable future projects would result in a significant impact to prehistoric or historic-era archaeological resources, human remains or TCRs. Due to the size of the project site and its location and disturbed nature, it is reasonable to assume the project's incremental contribution to the cumulative loss of cultural resources is not considerable. In addition, compliance with existing laws and implementation of project-level Mitigation Measure 4.4-2, would require investigation and handling by a qualified archaeologist in the event that an unknown resource is encountered ensuring the project-level impact to archeological resources would be reduced to less than significant. Therefore, the proposed project would not contribute to an existing cumulative impact to archaeological resources, human remains or TCRs and the project's cumulative contribution would be **less than significant**.

### Mitigation Measures

None required.

## 4.4.5 References

Hanten, Nicholas and Adam Giacinto. 2021 Cultural Resources Letter Report for the St. Joseph's Medical Hospital Expansion, Project, Stockton, California.

Kaiser, K., F. Steffen, N. Frank, S. Corder, and W. Burns. 2021. *Historical Resources Inventory and Evaluation Report For The St. Joseph's Medical Center Expansion Project, Stockton, California*. Prepared for Dignity Health, St. Joseph's Medical Center. December 2021.

## 4.5 Energy

### 4.5.1 Introduction

This section analyzes the potential impacts associated with implementation of the St. Joseph's Medical Center of Stockton Hospital Expansion project ("proposed project") on the potential energy consumption and conservation impacts, including mitigation measures that may be needed to reduce impacts to less than significant. This analysis includes a description of the existing conditions related to energy consumption and identifies associated regulatory requirements.

There were no comments received in response to the Notice of Preparation regarding energy consumption. A copy of the Notice of Preparation and comments received are included in Appendix A.

The primary sources reviewed to prepare this section include the Envision Stockton 2040 General Plan (City of Stockton 2018), the 2019 California Building Standards Code, and information from the City. For relevant data and model outputs, please see Appendix C. Other sources consulted are listed in Section 4.5.5, References Cited.

### 4.5.2 Environmental Setting

#### Electricity

The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into electrical energy. The delivery of electricity involves a number of system components, including power generation facilities, transmission and distribution lines, substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Production of electricity and its conveyance through the power grid occur in response to market demand.

Energy capacity, or electrical power, is generally measured in watts while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 watts, the energy required to keep the bulb on for one (1) hour would be 100 Wh. If ten (10) 100-watt bulbs were on for one (1) hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts, which is one (1) million watts, while energy usage is measured in megawatt-hours (1 million watt-hours) or gigawatt-hours (1 billion watt-hours).

Residences and businesses within the City of Stockton, including the project site, receive electricity from Pacific Gas and Electric Company (PG&E). Notably, on September 13, 2022, the City of Stockton's City Council voted unanimously to join East Bay Community Energy (EBCE) which would initiate in 2024. PG&E provides electric services to 5.4 million customers via 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines over a 70,000-square-mile service area that includes Northern California and Central California (PG&E 2021). According to PG&E, its customers consumed 78,519 million kWh of electricity in 2020 (Table 4.5-1) (CEC 2021a).

**Table 4.5-1. Pacific Gas and Electric Company 2020 Electricity Consumption**

| Sector                      | Total Electricity (in Millions of kWh) |
|-----------------------------|--|
| Agricultural and Water Pump | 6,638                                  |
| Commercial Buildings        | 26,247                                 |
| Commercial Other            | 3,949                                  |
| Industry                    | 9,814                                  |
| Mining and Construction     | 1,748                                  |
| Residential                 | 29,834                                 |
| Streetlight                 | 290                                    |
| <b>Total Consumption</b>    | <b>78,519</b>                          |

**Source:** CEC 2021a.

**Notes:** kWh = kilowatt-hour.

Total may not sum precisely due to rounding.

PG&E receives electric power from a variety of sources. According to the California Public Utilities Commission's 2021 California Renewables Portfolio Standard Annual Report, 35% of PG&E's power came from eligible renewable energy sources in 2019, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources (CPUC 2021a). Therefore, PG&E exceeded the state's Renewables Portfolio Standard (RPS) goal of 33% renewable energy delivered by 2020.

EBCE is a not-for-profit public agency that operates a Community Choice Energy program for Alameda County and fourteen incorporated cities, serving more than 1.7 million residential and commercial customers. EBCE initiated service in June 2018 and expanded to San Joaquin County in 2021. As one of 24 community choice aggregation (CCA) programs operating in California, EBCE is part of the movement to expedite the climate action goals of their communities and those of California. Customers have three electricity options to choose from, EBCE's Renewable 100 (100% California wind and solar power), EBCE's Bright Choice (40% from California wind and solar power), or they can return to PG&E for generation service. EBCE aims to provide 100% clean energy by 2030. As of 2020, EBCE's power mix is 54% clean energy (EBCE 2021).

In San Joaquin County, PG&E reported an annual electrical consumption of approximately 5,737 million kWh in 2020, with 3,621 million kWh for non-residential uses and 2,114 million kWh for residential uses (CEC 2021b).

Based on recent energy supply and demand projections in California, statewide annual peak electricity demand is projected to grow an average of 1,087 megawatts per year for the next decade, or 1.5% annually, and consumption per capita is expected to remain relatively constant at 7.6 to 8.0 megawatt-hours per person (CEC 2018).

According to the U.S. Energy Information Administration, California used approximately 250,175 gigawatt hours of electricity in 2020 (EIA 2021a). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Rhode Island (EIA 2021b).

## Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside

the state, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet.

The California Public Utilities Commission regulates natural gas utility service for approximately 10.8 million customers who receive natural gas from PG&E, Southern California Gas, San Diego Gas and Electric Company, Southwest Gas, and several smaller natural gas utilities. PG&E provides natural gas service to most of Northern California, including San Joaquin County. As provided in Table 4.5-2, PG&E customers consumed approximately 4,509 million therms of natural gas in 2020 (CEC 2021c).

**Table 4.5-2. Pacific Gas and Electric Company 2020 Natural Gas Consumption**

| Sector                      | Total Natural Gas (in Millions of Therms) |
|-----------------------------|---|
| Agricultural and Water Pump | 44  |
| Commercial Buildings        | 797                                       |
| Commercial Other            | 51  |
| Industry                    | 1,585                                     |
| Mining and Construction     | 140                                       |
| Residential                 | 1,891                                     |
| <b>Total Consumption</b>    | <b>4,509</b>                              |

**Source:** CEC 2021c.

**Note:** Total may not sum precisely due to rounding.

In 2020, PG&E delivered 185 million therms of natural gas to San Joaquin County, with the majority going to non-residential uses (95 million therms) (CEC 2021d).

According to the U.S. Energy Information Administration, California used approximately 2,074,302 million cubic feet of natural gas in 2020 (EIA 2021c). The majority of California's natural gas customers are residential and small commercial customers (core customers). These customers account for approximately 35% of the natural gas delivered by California utilities (CPUC 2021b). Large consumers, such as electric generators and industrial customers (noncore customers), account for approximately 65% of the natural gas delivered by California utilities (CPUC 2021b). CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. California gas utilities may soon also begin receiving biogas into their pipeline systems (CPUC 2021b).

## Petroleum

There are more than 36 million registered vehicles in California, and those vehicles consume an estimated 16 billion gallons of fuel each year (CEC 2020; DMV 2021). Petroleum currently accounts for approximately 92% of California's transportation energy consumption (CEC 2020). However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled (VMT). Section 4.7, Greenhouse Gas Emissions, discusses in more detail both federal and state regulations that would help increase fuel efficiency of



motor vehicles and reduce GHG emissions (see Section 4.7.2, Regulatory Framework). Market forces have driven the price of petroleum products steadily upward over time, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

Largely as a result of and in response to these multiple factors, gasoline consumption within the state has declined in recent years, and availability of other alternative fuels/energy sources has increased. The quantity, availability, and reliability of transportation energy resources have increased in recent years, and this trend will likely continue and accelerate. Increasingly available and diversified transportation energy resources act to promote continuing reliable and affordable means to support vehicular transportation within the state. According to the California Air Resources Board (CARB) Emission Factor (EMFAC) Web Database, San Joaquin County on-road transportation sources were projected to consume 0.78 million gallons of gasoline and 0.27 million gallons of diesel fuel in 2022 (CARB 2021a).

### 4.5.3 Regulatory Setting

#### Federal Regulations

##### Federal Energy Policy and Conservation Act and CAFE Standards

In 1975, Congress enacted the federal Energy Policy and Conservation Act, which established the first fuel economy standards, known as the Corporate Average Fuel Economy (CAFE) standards, for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards. In 2012, new CAFE standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer’s average fuel economy for the fleet of vehicles available for sale in the United States.

##### Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 was passed to reduce the country’s dependence on foreign petroleum and improve air quality. The act includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. The act requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in the act. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. The Energy Policy Act also requires states to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

##### Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased CAFE standards for motor vehicles, the EISA facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022.

- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
- Requiring approximately 25% greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200% greater efficiency for light bulbs, or similar energy savings, by 2020.
- While superseded by the U.S. Environmental Protection Agency (EPA) and NHTSA actions described previously, establishing miles per gallon targets for cars and light trucks and directing the NHTSA to establish a fuel economy program for medium-and heavy-duty trucks and create a separate fuel economy standard for trucks.

This federal legislation requires ever-increasing levels of renewable fuels (RFS) to replace petroleum (EPA 2017). EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains at least a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act and established the first renewable fuel volume mandate in the United States. As required under the Energy Policy Act, the original RFS program required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several ways that laid the foundation for achieving significant reductions in GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as “RFS2” and includes the following:

- The EISA expanded the RFS program to include diesel, in addition to gasoline.
- The EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- The EISA established new categories of renewable fuel and set separate volume requirements for each one.
- The EISA required EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green (environmentally beneficial) jobs.

### Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 promoted the development of intermodal transportation systems to maximize mobility and address national and local interests in air quality and energy. ISTEA contained factors for metropolitan planning organizations to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, metropolitan planning organizations adopted policies defining the social, economic, energy, and environmental values guiding transportation decisions.

## Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation (previously discussed). The Transportation Equity Act authorizes highway, highway safety, transit, and other efficient surface transportation programs. The act continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of transportation decisions. The Transportation Equity Act also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of intelligent transportation systems to help improve operations and management of transportation systems and vehicle safety.

## The Inflation Reduction Act of 2022

The Inflation Reduction Act was signed into law by President Biden in August 2022. The bill includes specific investment in energy and climate reform and is projected to reduce GHG emissions within the U.S. by 40% as compared to 2005 levels by 2030. The bill allocates funds to boost renewable energy infrastructure (e.g., solar panels and wind turbines), includes tax credits for the purchase of electric vehicles, and includes measures that will make homes more energy efficient.

## State Regulations

### Warren-Alquist Act

The California legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the California Energy Commission (CEC). The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for buildings constructed and appliances sold in California.
- It removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

### State of California Energy Action Plan

The CEC and the California Public Utilities Commission (CPUC) approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. In 2005, a second Energy Action Plan was adopted by the CEC and CPUC to reflect various policy changes and actions of the prior two (2) years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of

2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an update that examines the state's ongoing actions in the context of global climate change.

#### Senate Bills 1078, 107, X1-2, 350, 100, and 1020

Senate Bill (SB) 1078 (2002) established the California Renewables Portfolio Standard (RPS) Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20% standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20% of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) required all California utilities to generate 33% of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 set a three-stage compliance period: by December 31, 2013, 20% of electricity had to come from renewables; by December 31, 2016, 25% of electricity had to come from renewables; and by December 31, 2020, 33% was required to come from renewables.

SB 350 (2015) expanded the RPS by requiring retail seller and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030, with interim goals of 40% by 2024 and 45% by 2027.

SB 100 (2018) accelerated and expanded the standards set forth in SB 350 by establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity does not increase carbon emissions elsewhere in the western grid. Additionally, 100% zero-carbon electricity cannot be achieved through resource shuffling.

SB 1020 (2022) revises the standards from SB 100, requiring the following percentage of retail sales of electricity to California end-use customers come from eligible renewable energy resources and zero-carbon resources: 90% by December 31, 2035, 95% by December 31, 2040, and 100% by December 31, 2045.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the RPS requirements described above. The proposed project's reliance on non-renewable energy sources would be reduced accordingly.

#### Assembly Bill 1007

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

## Assembly Bill 32 and Senate Bill 32

In 2006, the state legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources.

## California Building Standards

The California Building Standards Code was established in 1978 and serves to enhance and regulate California's building standards (California Code of Regulations, Title 24). Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically (every 3 years) to incorporate and consider new energy efficiency technologies and methodologies.

The 2019 Title 24 standards were approved and adopted by the California Building Standards Commission in December 2018. The 2019 standards became effective January 1, 2020. The standards require that all low-rise residential buildings have a photovoltaic system meeting the minimum qualification requirements such that annual electrical output equal to or greater than the dwelling's annual electrical usage. Notably, net energy metering rules limit residential rooftop solar generation to produce no more electricity than the home is expected to consume on an annual basis. Single-family homes built with the 2019 standards will use approximately 7% less energy due to energy efficiency measures versus those built under the 2016 standards, while new non-residential buildings will use approximately 30% less energy.

Beyond the 2019 standards, the most important energy characteristic for a building will be that it produces and consumes energy at times that are appropriate and responds to the needs of the grid, which reduces the building's emissions.

In furtherance of that characteristic, the 2019 standards require that new single-family homes include solar photovoltaic to meet the home's expected annual electric needs and also encourage demand responsive technologies, including battery storage, heat pump water heaters, and improving the building's thermal envelope through high performance attics, walls, and windows. These smarter homes perform better and affect the grid less, which reduces the building's GHG emissions.

The 2022 standards will improve upon the 2019 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The CEC updates the Title 24 Energy Code every three (3) years. The CEC adopted the 2022 Title 24 Energy Code in August 2021 and the California Building Standards Commission approved incorporating the updated code into the California Building Standards Code (CALGreen) in December 2021. The 2022 Energy Code will go into effect on January 1, 2023. The 2022 Energy Code focuses on four (4) key areas in newly constructed homes and businesses:

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.

- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking, and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available on site and complement the state's progress toward a 100% clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

CALGreen instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals. The current code is the 2022 California Building Code. The mandatory standards require the following:

- In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for low-emitting, fuel-efficient and carpool/van pool vehicles.
- Construction shall facilitate future installation of EV supply equipment.
- Shade trees shall be planted to comply with specifications for surface parking areas, landscape areas, and hardscape areas.
- Water conserving plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with efficiency standards.
- Outdoor potable water use in landscaped areas shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources Model Water Efficient Landscape Ordinance, whichever is more stringent.
- Outdoor recycled water supply systems shall be installed in accordance with applicable state codes.
- Installations of heating, ventilation, and air conditioning (HVAC); refrigeration; and fire suppression equipment shall comply with specified standards.

The CALGreen standards also include voluntary efficiency measures that are implemented at the discretion of agencies and applicants.

### Integrated Energy Policy Report

The CEC is responsible for preparing integrated energy policy reports, which identify emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The latest Integrated Energy Policy Report was released in February 2022 and addressed a variety of issues, including, but not limited to, implementation of SB 350, electricity resource/supply plans, electricity and natural gas demand forecast, natural gas outlook, transportation energy demand forecasts, doubling energy efficiency savings, integrated resource planning, climate adaptation and resiliency, renewable gas, distributed energy resources, strategic transmission investment plan, and existing power plant reliability issues (CEC 2021e).

### State Vehicle Standards

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO<sub>2</sub>) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009–2012 standards resulted in a



reduction in approximately 22% of GHG emissions compared to emissions from the 2002 fleet, and the 2013–2016 standards resulted in a reduction of approximately 30% compared to the 2002 fleet.

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global-warming gases with requirements for greater numbers of zero-emissions vehicles into a single package of standards called Advanced Clean Cars (ACC). By 2025, when the rules would be fully implemented, new automobiles would emit 34% fewer global-warming gases and 75% fewer smog-forming emissions (CARB 2020).

In 2019, the EPA and NHTSA published the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program (SAFE-1)(84 Fed. Reg. 51310), which revoked California’s authority to set its own GHG emissions standards and set zero-emission vehicle (ZEV) mandates in California. In March 2020, Part Two was issued which set CO<sub>2</sub> emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. In December 2021, NHTSA withdrew its portions of the SAFE I rule (NHTSA 2021). In March 2022, EPA reinstated California’s authority under the Clean Air Act to implement its own GHG emission standards and ZEV sales mandate. EPA’s action concludes its reconsideration of the 2019 SAFE-1 rule by finding that the actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.

### Advanced Clean Cars Program

The ACC I program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package of regulations: the Low-Emission Vehicle (LEV) regulation for criteria air pollutant and GHG emissions and a technology forcing regulation for zero-emission vehicles (ZEV) that contributes to both types of emission reductions (CARB 2021b). The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold in 2015. The ZEV program will act as the focused technology of the ACC I program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid EVs in the 2018 to 2025 model years.

The ACC II program is currently in development to establish the next set of LEV and ZEV requirements for model years after 2025 to contribute to meeting federal ambient air quality ozone standards and California’s carbon neutrality standards (CARB 2021b). The main objectives of ACC II are:

1. Maximize criteria and GHG emission reductions through increased stringency and real-world reductions.
2. Accelerate the transition to ZEVs through both increased stringency of requirements and associated actions to support wide-scale adoption and use.

An ACC II rulemaking package, which will consider technological feasibility, environmental impacts, equity, economic impacts, and consumer impacts, is anticipated to be presented to CARB for consideration in June 2022.

### Advanced Clean Trucks Program

The purpose of the ACT Regulation (June 2020) is to accelerate the market for zero-emission vehicles in the medium- and heavy-duty truck sector and to reduce emissions NO<sub>x</sub>, fine particulate matter, TACs, GHGs, and

other criteria pollutants generated from on-road mobile sources (CARB 2021c). Requiring medium- and heavy-duty vehicles to transition to zero-emissions technology will reduce health risks to people living in and visiting California and is needed to help California meet established near- and long-term air quality and climate mitigation targets. The regulation has two components including (1) a manufacturer sales requirement, and (2) a reporting requirement:

1. Zero-emission truck sales: Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines will be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales.
2. Company and fleet reporting: Large employers including retailers, manufacturers, brokers and others will be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, will be required to report about their existing fleet operations. This information will help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

### EO N-79-20

Governor Gavin Newsom signed EO N-79-20 in September 2020, which sets a statewide goal that 100% of all new passenger car and truck sales in the state will be zero-emissions by 2035. It also sets a goal that 100% of statewide new sales of medium- and heavy-duty vehicles will be zero emissions by 2045, where feasible, and for all new sales of diesel-fuel heavy duty trucks to be zero emissions by 2035. Additionally, the EO targets 100% of new off-road vehicle sales in the state to be zero emission by 2035. CARB is responsible for implementing the new vehicle sales regulation.

### Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates established in AB 32. As codified in California Government Code Section 65080, SB 375 requires metropolitan planning organizations to include a sustainable communities strategy in their regional transportation plan. The main focus of the sustainable communities strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and VMT, which influence the consumption of petroleum-based fuels. On August 25, 2022, the San Joaquin Council of Governments (SJCOG) board adopted the 2022 Regional Transportation Plan and Sustainable Communities Strategy (2022 RTP/SCS) which includes a target of 12% per capita reduction by 2020 and a 16% per capita reduction by 2035. The 2022 RTP/SCS emphasizes the need for local initiatives that can reduce the region's GHG emissions that contribute to climate change, an issue that is largely outside the focus of local attainment plans. The 2022 RTP/SCS also emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

### Executive Order B-16-12

Governor Brown issued EO S-16-12 on March 23, 2012. The EO requires that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. It orders CARB, the CEC, CPUC,

and other relevant agencies work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following by 2015:

- The state's major metropolitan areas will be able to accommodate ZEVs, each with infrastructure plans and streamlined permitting.
- The state's manufacturing sector will be expanding ZEV and component manufacturing.
- The private sector's investment in ZEV infrastructure will be growing.
- The state's academic and research institutions will be contributing to ZEV research, innovation and education.

CARB, the CEC, and CPUC, are also directed to establish benchmarks to help achieve the following goals by 2020:

- The state's ZEV infrastructure will be able to support up to one million vehicles.
- The costs of ZEV will be competitive with conventional combustion vehicles.
- ZEVs will be accessible to mainstream consumers.
- There will be widespread use of ZEVs for public transportation and freight transport.
- Transportation sector GHG emissions will be falling as a result of the switch to ZEVs.
- EV charging will be integrated into the electricity grid.
- The private sector's role in the supply chain for ZEV component development and manufacturing will be expanding.

Benchmarks are also to be established to help achieve the following goals by 2025:

- Over 1.5 million ZEVs will be on California roads and their market share will be expanding.
- Californians will have easy access to ZEV infrastructure.
- The ZEV industry will be a strong and sustainable part of California's economy.
- California's clean, efficient vehicles will annually displace at least 1.5 billion gallons of petroleum fuels.

On a statewide basis, the EO establishes a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050.

### Assembly Bill 1007

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the CARB and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

### Senate Bill 1383

SB 1383 (Chapter 395, Statutes of 2016). establishes targets to achieve a 50% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75% reduction by 2025. Law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20% of currently disposed of edible food is recovered for human consumption by 2025 (CalRecycle 2019).

## Local Regulations

### City of Stockton Envision 2040 General Plan

Applicable energy conservation standards in the City's 2040 General Plan are contained within the Safety, and Community Health and Transportation chapters. The Safety and Community Health chapters contains specific goals, policies, and actions for reducing energy within the City. The following goals and policies are relevant to the proposed project.

#### Community Health

##### Goal CH-5. Sustainability Leadership.

Policy CH-5.1. Accommodate a changing climate through adaptation, mitigation, and resiliency planning and projects.

Policy CH-5.2. Expand opportunities for recycling, re-use of materials, and waste reduction.

#### Transportation

The Transportation chapter is intended to strengthen physical transportation connections within the City and greater region, including road, bicycle, and trail networks. The following goals and policies are applicable to the proposed project.

##### Goal TR-3. Sustainable Transportation. Design transportation infrastructure to help reduce pollution and vehicle travel.

Policy TR-3.2. Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.

### City of Stockton Climate Action Plan

In August 2014, the City adopted a Climate Action Plan (CAP) in compliance with a Settlement Agreement with the California Attorney General and the Sierra Club related to the City's adopted General Plan 2035 and associated EIR. The CAP "outlines a framework to feasibly reduce community GHG emissions in a manner that is supportive of AB 32 and is consistent with the Settlement Agreement and 2035 General Plan policy" (City of Stockton 2014).

The CAP sets a GHG emission reduction target of 10% below 2005 GHG emission levels by 2020, or approximately 20.6% below 2020 "business as usual" GHG emissions (i.e., 2020 GHG emissions that are unmitigated), which is the level by which the state has set its emission reduction goal. Approximately 83% of the reductions needed to achieve the City's GHG reduction goal are achieved through state-level programs, and 17% are achieved through City-level programs. The largest GHG reductions are identified in the areas of building energy (both energy efficiency and renewable energy), transportation, and waste. It should be noted that the GHG emission inventory on which CAP targets and policies are based did not include heavy industrial sources.

Furthermore, Appendix F of the City's CAP has a Climate Impact Study Process, which is part of the Development Review Process, that describes best management practices (BMPs) to reduce GHG emissions from construction

and operational activities. Development must identify the BMPs or other mitigation that would provide the reduction in GHG emissions (City of Stockton 2014).

## 4.5.4 Impacts and Mitigation Measures

### Methods of Analysis

#### Construction

Proposed project construction would primarily consume energy in the form of petroleum-based fuels associated with the use of off-road construction equipment on the project site and construction worker, delivery trucks, and haul trucks traveling to and from the project site. During proposed project construction, electricity use is anticipated to be minimal. Each energy source is discussed further below.

#### Electricity

Electricity used on a limited basis to power lighting, electronic equipment, and other construction activities necessitating electrical power, as well as electricity usage associated with the supply and conveyance of water used for dust control during construction, was assumed to be minimal and not estimated herein.

#### Natural Gas

In terms of natural gas, construction activities typically do not involve the consumption of natural gas, and any use is anticipated to be negligible and not estimated herein.

#### Petroleum

Construction of the proposed project would consume energy resources as a result of the use of heavy-duty construction equipment, on-road delivery and haul trucks, and workers commuting to and from the project site. Petroleum emissions associated with the use of construction equipment and vehicles, which were used to calculate gallons of petroleum consumed, were calculated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.5 and are provided in Appendix C. Fuel consumption from construction equipment was estimated by converting the total CO<sub>2</sub> emissions from each construction phase to gallons using the conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton CO<sub>2</sub> per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO<sub>2</sub> per gallon (The Climate Registry 2021).

#### Operation

The existing medical buildings and on-site single-family residence consumes energy resources for building heating, ventilation, and air conditioning (HVAC) system, water demand, wastewater treatment, and vehicle travel. Operation of the proposed project would consume those same resources. The first full year after buildout of the proposed project was assumed to be 2042. The existing uses were assumed to be operational in 2022. Each energy source is discussed further below.

#### Electricity

Proposed project electricity usage (including electricity usage for water) is based on the estimated total annual building load summaries from CalEEMod as estimated in the air quality and GHG emissions modeling (Appendix C).

To estimate energy use associated with the proposed project, default CalEEMod values for natural gas demand were converted to electricity demand. In other words, electricity demand was increased to accommodate the removal of natural gas to ensure the energy demand that was assumed to be natural gas for space heating, water heating, and cooking in CalEEMod is adequately covered in the proposed project energy consumption estimates.

For the existing uses, which is based on the existing buildings which would be demolished at the site, CalEEMod default values were updated based on the provided existing buildings electricity consumption.

### Natural Gas

Project natural gas consumption is based on the estimated total annual building load summaries from CalEEMod. Default natural gas usage rates in CalEEMod were used for the nonresidential components of the proposed project. The energy use from nonresidential land uses (natural gas usage per square foot per year) is calculated in CalEEMod based on the California Commercial End-Use Survey database. CalEEMod default values for energy consumption, which assume compliance with the 2019 Title 24 Building Energy Efficiency Standards.

For the existing uses, which is based on existing buildings which will be demolished at the site, CalEEMod default values were updated based on the provided existing buildings natural gas consumption.

### Petroleum

Petroleum would be consumed by proposed project-generated vehicles, which is a function of total VMT and estimated vehicle fuel economies for the vehicles accessing the project site. With respect to estimated VMT and based on the number of trips and VMT methodologies used in the air quality and GHG emissions modeling, buildout of the proposed project would generate an estimated 6,892,818 VMT, respectively; see Appendix C for details. The existing uses were estimated to generate 1,872,764 VMT per year. Similar to construction worker and vendor trips, fuel consumption was estimated by converting the total CO<sub>2</sub> emissions from proposed project mobile sources to gallons using the conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. Based on the annual fleet mix provided in EMFAC2021 (CARB 2021c), for buildout of the proposed project, approximately 96% of the fleet mix using fossil fuels (with the exception of natural gas) were assumed to run on gasoline and approximately 4% of the fleet mix was assumed to use diesel.<sup>1</sup> For the existing uses, approximately 95% of the fleet mix using fossil fuels were assumed to run on gasoline and approximately 5% of the fleet mix was assumed to use diesel.

### Thresholds of Significance

A significant impact would occur if development of the proposed project would do any of the following:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

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<sup>1</sup> Vehicles using natural gas are anticipated to be minimal and associated emissions was assumed to be fossil fuel. Electric vehicles were excluded for this calculation as CalEEMod 2022.1.5 assumes electric vehicles generate zero GHG emissions and the energy calculated is based on the CalEEMod CO<sub>2</sub> estimates for mobile sources.



## Project Impacts

Impact 4.5-1                    **The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.**

Implementation of the proposed project would result in the demand for electricity and natural gas at the project site and gasoline and diesel consumption in the project area during construction and operation. However, the existing uses of the site also currently demand energy. The one-time construction energy demand and the operational net change in energy demand is evaluated below.

### Construction

Energy use during proposed project construction associated with each parcel would primarily occur in association with fuel use by vehicles and other equipment to conduct construction activities.

#### Electricity

The electricity demand at any given time would vary throughout the proposed project construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. The electricity used for construction activities would be temporary and minimal; it would be within the supply and infrastructure service capabilities of PG&E and it would not require additional local or regional capacity. The electricity demand during construction would be temporary and minimal and would occur over build out the proposed project.

#### Natural Gas

Natural gas is not anticipated to be required during proposed project construction because construction of new buildings and facilities typically do not consume natural gas. Peak energy demand specifically applies to electricity; because natural gas (and petroleum) are liquid, these energy resources do not have the same constraints as electricity supply. Nonetheless, if any natural gas is needed, it would be sufficiently served by existing supply from PG&E and would not require additional local or regional capacity. Any minor amounts of natural gas that may be consumed as a result of construction would be temporary and negligible and would not have an adverse effect.<sup>2</sup>

#### Petroleum

Offroad equipment used during construction of the proposed project would primarily rely on diesel fuel, as would vendor trucks involved in delivery of materials to the individual parcels, haul trucks exporting demolition material, and haul trucks importing or exporting soil, tree debris, and other materials to and from the project site. In addition, construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel in gasoline-powered light-duty vehicles.

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<sup>2</sup> While no natural gas is anticipated to be used during construction as construction equipment is typically diesel-fueled, the possibility of natural gas use is acknowledged in the event a natural gas-fueled piece of equipment is used. However, as noted previously, all equipment was assumed to be diesel-fueled in CalEEMod.

The estimated diesel fuel usage from construction equipment, haul trucks, and vendor trucks, as well as estimated gasoline fuel usage from worker vehicles for Phases 1-4 and future Phase 5 of the project, is shown in Table 4.5-3. Appendix C lists the assumed equipment usage and vehicle trips.

**Table 4.5-3. Total Proposed Project Construction Petroleum Demand**

| Project            | Off-Road Equipment (diesel) | Haul Trucks (diesel) | Vendor Trucks (diesel) | Worker Vehicles (gasoline) |
|--------------------|-----------------------------|----------------------|------------------------|----------------------------|
|                    | Gallons                     |                      |                        |                            |
| Phases 1 through 5 | 285,615                     | 10,233               | 110,210                | 95,017                     |

**Source:** Appendix C.

**Note:** Totals may not sum due to rounding.

In summary, construction associated with development of the proposed project is estimated to consume a total of approximately 95,017 gallons of gasoline and 406,057 gallons of diesel fuel.

Notably, the proposed project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements. Overall, the proposed project would not be unusual as compared to overall local and regional demand for energy resources and would not involve characteristics that require equipment that would be less energy-efficient than at comparable construction sites in the region or state.

Therefore, because petroleum use during construction would be temporary, and would not be wasteful or inefficient, impacts would be **less than significant**.

## Operation

### Electricity

Project operation would require electricity for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, and electronics. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage. CalEEMod was used to estimate the proposed project electricity uses (see Appendix C for calculations). Default electricity generation rates in CalEEMod were used based on the proposed land use and climate zone. Furthermore, the default values in CalEEMod were updated for the existing land uses based on consumption data provided by the project applicant.

Title 24 of the California Code of Regulations serves to enhance and regulate California's building standards. The proposed project was assumed to meet the 2019 California Building Energy Efficiency Standards (24 CCR, Part 6) at a minimum, which are the default assumptions in CalEEMod version 2022.1.5. However, the proposed project would be subject to the most current 2022 Title 24 code which will go into effect in January 2023 (note: Title 24 is updated every 3 years so it is anticipated buildout of the project may be subject to more stringent

requirements as updates go into effect). According to these estimations, buildout of the proposed project would consume approximately 22,577,80 kWh per year during operation. The existing buildings consumed approximately 4,526,573 kWh in 2021 (Energy Usage, Pers. Comm. Brewer 2022). As such, upon proposed project implementation, electricity demand at the project site would increase by approximately 18,050,707 kWh per year with buildout of the proposed project. The increase in electricity use at the project site is due to the increase in square footage. The energy demand calculations do not take into account all of the proposed project's energy-saving design features that would result in exceedances of the code requirements. Notably, as discussed in Chapter 2, Project Description, the proposed project would aim to increase use of renewable energy by 20% by 2030. In addition, Common Spirit Health announced in November 2022 an industry-leading commitment to achieve net-zero GHG emissions by 2040 with an interim target to cut operational emissions in half by 2030. This would be achieved by implementing renewable energy sources including photovoltaic, solar hot water, cogeneration, fuel cells, geothermal, and wind where economically viable through the use of Power Purchase Agreements and internal funding. In addition, the proposed project would convert interior and exterior lighting with LED technology with dimmable controls and would convert surgical lights to LED technology improving physician satisfaction and variability of operating room temperatures. As such, the proposed project's electricity use would likely be more efficient than what is assumed due to anticipated future more stringent regulations and would potentially be lower than the calculations presented above.

In summary, although electricity consumption would increase at the project site due to the implementation of the proposed project, the proposed project would include several sustainability measures in order to reduce electricity consumption. For these reasons, electricity consumption of the proposed project would not be considered inefficient, wasteful, or unnecessary, and impacts would be **less than significant**.

### Natural Gas

Natural gas consumption during operation would be required for various purposes, including, but not limited to, building heating and cooling.

Default natural gas generation rates in CalEEMod for the proposed land use and climate zone were used and adjusted based on compliance with 2019 Title 24 for hospital uses (see Appendix C for calculations). According to these estimations, the proposed project would consume approximately 334,453 therms per year after full project buildout. The existing uses natural gas consumption was approximately 2,206 therms in 2021. As such, upon project implementation, natural gas demand at the project site would increase by approximately 332,247 therms per year with buildout of the proposed project.

Although natural gas consumption would increase due to the implementation of the proposed project, the building envelope; heating, ventilation, and air conditioning; lighting; and other systems shall be designed to maximize energy performance. The proposed project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations (for those non-hospital components). Title 24, Part 11, contains voluntary energy measures that are applicable to proposed project under the California Green Building Standards Code. Prior to proposed project approval, the proposed project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. In addition, Section 2.0, Project Description, includes sustainability measures which would further reduce the proposed project natural gas consumption. Notably, the proposed project would aim to reduce energy consumption by 25% as measured in kBtu/square foot by 2030. This would be achieved by with the installation of building automation systems and other smart controllers to manage energy consumption, positioning the new hospital buildings to take advantage of external day lighting, maintaining window/wall ratios to maximize energy efficiency through decreased heat gain by

selectively choosing exterior material and window reflectance, and utilizing the waste heat recovery from boiler exhaust to pre heat make up water to deaerator tank, hydronic hot water boilers, and/or domestic hot water boilers. For these reasons, the natural gas consumption of the proposed project would not be considered inefficient or wasteful, and impacts would be **less than significant**.

## Petroleum

During operations, the majority of fuel consumption resulting from the proposed project would involve the use of motor vehicles traveling to and from the project site, as well as fuels used for alternative modes of transportation that may be used by residents, employees, visitors, and guests of the proposed project.

Petroleum fuel consumption associated with motor vehicles traveling to and from the project site is a function of the operational VMT. The annual VMT attributable to buildout of the proposed project was estimated to be 6,892,818 VMT, respectively; see Appendix C for details. The existing uses were estimated to generate 1,872,764 VMT per year. The proposed project would result in the consumption of an estimated 228,240 gallons of gasoline per year and 8,232 gallons of diesel per year from operation of vehicle trips traveling to and from the project site, or 236,472 gallons of petroleum per year.

The existing uses at the project site are estimated to result in 1,872,764 VMT per year (Appendix C). The existing uses would consume an estimated 82,897 gallons of gasoline per year and 4,032 gallons of diesel per year from operation of vehicle trips traveling to and from the project site, or 86,929 gallons of petroleum per year. As such, implementation of the proposed project would lead to an increase in petroleum consumption of approximately 149,544 gallons of petroleum per year due to the increased number of vehicles traveling to and from the project site.

Over the lifetime of the proposed project, the fuel efficiency of the vehicles being used by the visitors, employees, and guests or patients of the proposed project is expected to increase. As such, the amount of gasoline consumed as a result of vehicular trips to and from the project site during operation would decrease over time. As discussed under Section 4.5.3, there are also numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted a new approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and ZEVs in California (CARB 2021a). Additionally, in response to SB 375, CARB has adopted the goal of reducing per-capita GHG emissions from 2005 levels by 12% by the year 2020 and 16% by the year 2035 for light-duty passenger vehicles in the SJCOG planning area (SJCOG 2018). This reduction would occur by reducing VMT through the integration of land use planning and transportation. As such, operation of the proposed project is expected to use decreasing amounts of petroleum over time, due to advances in vehicle fuel economy.

Note that due to the urban setting of the project site, which is served by bus service, it is expected that visitors, patients, and employees may use transit or non-vehicular modes of transportation to travel to and from the project site. The San Joaquin Regional Transit District (RTD) is the primary regional transit provider in San Joaquin County (County). San Joaquin RTD provides public transit services in the Stockton Metropolitan area, as well as intercity and rural transit services countywide. San Joaquin RTD provides several types of bus service including Stockton Metropolitan Area Service, Intercity and Interregional Services and Dial-A-Ride. The Stockton Metropolitan Area operates local bus routes, Metro Express, and Metro Hopper services. Several routes operate along N. California Street in the vicinity of the proposed project including Routes 5, 520, and 720. Bus stops are located near the Medical Center campus along N. California Street near its intersections with Walnut Street, E. Wyandotte Street, and Sonoma Avenue on both sides of the street. There are also mid-block bus stops for the above routes, in the

southbound direction near Arcadia Street, south of Ellis Street, and south of Hampton Street. Furthermore, use of transit and non-vehicular modes of transportation is anticipated to increase over time, as local and regional plans and policies facilitating increased use and development of transit and non-vehicular transportation modes are implemented. Section 4.5.3 summarizes some of these plans and policies which includes the 2022 RTP/SCS, which was adopted by SJCOG in August 2022. Additionally, project-specific sustainable design features would include EV charging electric infrastructure consistent with state and local requirements to be identified at the time of plan check submittal. Such features include on-site bicycle parking and preferential parking for low-emission/fuel-efficient vehicles and carpools/vanpools for visitors, guests, and employees. Additionally, the project design includes a new sidewalk along N. California Street to improve pedestrian circulation between E. Maple Street and E. Harding Way. The proposed project would also include pedestrian signal enhancements to improve pedestrian safety from off-site leased facilities at the corner of E. Harding and Cemetery Lane. These enhancements would make the area more pedestrian friendly. Increased EV would reduce petroleum use and increase electricity use; however, electricity is a cleaner and a potentially renewable energy source.

In summary, project implementation would result in an increase in petroleum use during operation compared with the existing uses. However, the proposed project would include a variety of features that are expected to reduce the number of vehicles traveling to and from the site during operation (see Section 4.7, Greenhouse Gas Emissions). When viewed on a regional scale, the proposed project is an urban infill project located within a large population center that serves an existing demand for health care services. When compared with new development projects sited on previously undeveloped land and away from population centers, infill projects are generally expected to involve fewer VMT during operation. Given these considerations, the petroleum consumption associated with the proposed project would not be considered inefficient or wasteful, and impacts would be **less than significant**.

### Renewable Energy Potential

Given the proposed project's location in an urban area and the nature of the proposed project (i.e., an expansion of medical care facilities), there are considerable site constraints including limited land availability, incompatibility with on site and surrounding land uses for large scale power generation facilities, unknown interconnection feasibility, compatibility with utility provider systems, and no known water or geothermal resources to harness, that would eliminate the potential for biomass, geothermal, and hydroelectric renewable energy to be installed on site.

Regarding wind power, first, due to the urban nature of the site and surrounding land uses, wind turbines are generally not feasible as it represents an incompatible use. Specifically, a general rule of thumb is to install a wind turbine on a tower with the bottom of the rotor blades at least 30 feet above anything within a 500-foot horizontal radius and to be sited upwind of buildings and trees (APA 2011, NREL 2015), which the project site cannot accommodate. Secondly, ideal places for wind turbines are where the annual average wind speed is at least 9 miles per hour (4 meters per second) for small wind turbines and 13 miles per hour (5.8 meters per second) for utility-scale turbines (EIA 2022) while per the latest five-year meteorological data (2013-2017) for the Stockton Metropolitan Airport station, which is determined to be the most representative data set for the project site, shows an average wind speed of 7.8 miles per hour (3.46 meters per second). As such, wind power was not determined to be feasible for the proposed project.

Regarding solar power, the proposed project would implement renewable energy sources including photovoltaic, solar hot water, cogeneration, fuel cells, geothermal, and wind where economically viable through the use of Power Purchase Agreements and internal funding. As solar power technology improves in the future and regulations require additional solar, it is reasonable to assume that additional solar power may be provided to the project site.

While the proposed project does not propose battery storage, the proposed project does not preclude installation of battery storage in the future if determined to be a feasible and compatible land use of the site.

In summary, the proposed project would incorporate use of renewable energy through the use of Power Purchase Agreements and internal funding in order to meet a goal of 20% by 2030, which would be feasible for the site and does not include the onsite renewable energy sources that were determined to be infeasible.

### Summary

As explained above, the proposed project would use renewable energy onsite as determined to be feasible and would not result in wasteful, inefficient, or unnecessary consumption of energy resources, including electricity, natural gas, or petroleum during project construction or operation. Impacts would be **less than significant**.

### Mitigation Measures

None required.

**Impact 4.5-2                    The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.**

The proposed project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR, Part 6) 2019 standards, but would likely be subject to the 2022 Title 24 standards. Part 6 of Title 24 establishes energy efficiency standards for non-residential buildings constructed in California in order to reduce energy demand and consumption. Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the project under the California Green Building Standards Code. As discussed under Impact 4.5-1, the proposed project would result in an increased demand for electricity during operation and a temporary demand for petroleum during construction; however, the proposed project would include the removal of older existing buildings which would be less energy efficient compared with the newer facilities proposed. The analysis above shows the proposed project would result in an increased demand for electricity and petroleum. In accordance with CALGreen's Title 24 Part 11 Tier 2 voluntary efficiency measures, the proposed project would have at least 75% of its construction and demolition waste diverted from landfills. See Chapter 2, Project Description for a full list of sustainable measures incorporated into the project design.

Because the proposed project would comply with and exceed the existing energy standards and regulations, the project would result in a **less-than-significant impact** associated with the potential to conflict with energy standards and regulations.

### Mitigation Measures

None required.

### Cumulative Impacts

Future development within the PG&E service area, which generally includes all of northern California.



Impact 4.5-3                    **Buildout of the proposed project and additional forecasted growth in the PG&E service area would not cumulatively increase the demand for electricity and natural gas supplies and infrastructure capacity.**

Past, present, and reasonably foreseeable projects (i.e., cumulative projects) projects within PG&E's service area could result in wasteful, inefficient, or unnecessary use of energy. However, cumulative projects would be required to conform to current federal, state, and local energy conservation standards, including the California Energy Code Building Energy Efficiency Standards (24 CCR Part 6), the CALGreen Code (24 CCR Part 11), and SB 743. As a result, it is not anticipated there would be an underlying cumulative impact. With the addition of the proposed project, the project's increase in electricity and natural gas, in combination with other cumulative projects, would not be great enough to cause a wasteful use of energy or other non-renewable natural resources. The project would also be required to comply with all federal, state, and local energy conservation standards. Therefore, the energy demand and use associated with the proposed project would not be considerable and the project's contribution would be considered a **less-than-significant cumulative impact** on energy resources.

### Mitigation Measures

None required.

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## 4.6 Geology and Soils

### 4.6.1 Introduction

This section analyzes the potential impacts associated with implementation of the St. Joseph’s Medical Center of Stockton Hospital Expansion project (“proposed project”) on geologic and soil resources, including mitigation, if any, that may be needed to reduce impacts to less than significant. This analysis includes a description of the existing geological and soils setting of the project site and vicinity and identifies associated regulatory standards. The analysis focuses on potential impacts to the project’s exposure to fault zones, risk of seismic ground shaking, risk of seismic-related ground failure (liquefaction), soil erosion, and expansive soils.

There were no comments received in response to the Notice of Preparation regarding geologic or soil resources. A copy of the Notice of Preparation and comments received are included in Appendix A.

The primary source reference to prepare the analysis is the Preliminary Geotechnical Engineering Report for St. Joseph’s Medical Center North Tower Addition and Supportive Buildings (Geotechnical Report) prepared by Wallace Kuhl & Associates on March 28, 2022 (revised May 25, 2022). A copy of this report is provided in Appendix F.

### 4.6.2 Environmental Setting

This section describes the existing geologic and soils setting in the City of Stockton (City) as it relates to the proposed project.

#### Site Location

The proposed project is located within the existing St. Joseph’s Medical Center (“Medical Center”) campus. The proposed project also includes properties that are outside of the main campus, including five (5) parcels that are proposed for short-term uses during and after construction and several off-campus parcels that are included in the Master Development Plan (MDP). The adjacent land uses include a variety of residential, commercial, offices, and public facilities. The Medical Center is surrounded by residences to the north and west, commercial and office buildings to the west, the San Joaquin Catholic Cemetery to the east, and County and City facilities, including medical clinics, a behavior health center, and City fire station to the south. The project site is relatively flat located approximately 20 feet above mean sea level (Appendix F).

#### Regional Geology

The proposed project is located in an area of the Great Valley geologic province of the western United States. This province consists of a low-lying valley approximately 400 miles long and 20 to 70 miles wide, which covers over 20,000 square miles. According to the Geologic Map of the Stockton Quadrangle published by the California Department of Mines, the project site is mapped within the Modesto Formation of the Pleistocene age; this formation consists of gravel, sand, silt and clay (Appendix F). The mapped geology was found to be consistent with subsurface soil conditions encountered within borings performed on the project site to prepare the geotechnical report.

The Great Valley consists of valleys lying end-to-end, with the Sacramento Valley to the north and the San Joaquin Valley to the south. Both of these valleys have been filled to their current elevations with sediment derived from marine and terrestrial sources. The sedimentary deposits range in thickness from relatively thin deposits along the eastern valley edge to more than 25,000 feet in depth along the south-central portion of the Great Valley. The geologic formations of the Great Valley Province vary in age from Jurassic to Quaternary, with the older deposits primarily being marine in origin. Younger sediments are understood as continentally derived and were typically deposited in lacustrine, fluvial, and alluvial environments with their primary source being the Sierra Nevada Range (Appendix F).

### Regional Seismicity

The Hayward Fault, a major earthquake fault in the San Francisco Bay region, lies approximately 40 miles west-southwest of the City. Recent seismological research concluded that the average earthquake recurrence interval on this fault is approximately 138 years and the forecasted probability of a large seismic event through the year 2036 is approximately 31%. The closest active fault to the City is the Greenville Fault, which lies approximately 22 miles southwest of the City. This fault's forecasted activity is less than that of the Hayward Fault. The largest historic earthquake on the Greenville Fault was estimated to be magnitude 6.0 (City of Stockton 2018b). The other major fault is the Calaveras Fault located approximately 33 miles east of the City. According to the project's geotechnical report, the nearest Alquist-Priolo Fault Zone is the Cleveland Hill Fault which is located approximately 53 miles north of the project site (Appendix F).

Relatively few subsurface faults have been mapped in the northern part of the San Joaquin Valley; the largest of these subsurface faults is the Stockton Fault. The Stockton Fault is a south-dipping reverse fault that trends east-west across the region. The fault is not exposed at the surface and its location has been estimated from drilling logs. It is not a recently active fault, with most of the reported activity occurring in the Oligocene and early Miocene periods (i.e., approx. 10 to 30 million years before present) (City of Stockton 2018b).

An earthquake of moderate to high magnitude generated within the nearby San Francisco Bay area could cause significant ground shaking in the region. The degree of shaking depends on the magnitude of the event, the duration of the event, the distance to the zone of rupture, and local geologic conditions. As discussed above, the City is located east of major earthquake faults, such as the Greenville, Calaveras, and Hayward Faults, which would minimize impacts related to ground shaking. As described in Section 4.6.3, the Alquist-Priolo Zones Special Studies Act defines active faults as those that have experienced surface displacement or movement during the last 11,000 years.

### Potential Geologic Hazards

#### Ground Shaking

The severity of seismic ground shaking is dependent on several variables such as earthquake magnitude, proximity to zone of rupture, local geology, groundwater conditions, and topographic setting. In general, ground-shaking hazards are most prominent in areas that are underlain by loosely consolidated soil and sediment.

According to the Working Group on California Earthquake Probabilities, the estimated likelihood of a magnitude 6.7 or greater earthquake in the greater San Francisco Bay area before 2036 is 63% (City of Stockton 2018b). Individually, the forecasted probabilities are as follows: 31% for the Hayward Fault, 7% for the Calaveras Fault, and 3% for the Greenville Fault (the closest active fault to the City). Earthquakes of a 6.7 magnitude can create ground

accelerations severe enough to cause damage to structures and foundations not designed to resist the forces generated by earthquakes. Underground utility lines are also susceptible where and if they lack sufficient flexibility to accommodate the seismic ground motion. The City's distance from active earthquake faults would help minimize impacts related to ground shaking.

The subsurface Stockton Fault is estimated to cross the southern portion of City; however, this fault is not classified as a currently "active" fault by the California Geological Survey (CGS). The fault has not been active for the last 10 to 30 million years and therefore does not possess ground shaking potential.

### Liquefaction and Lateral Spreading

Liquefaction occurs when partially saturated soil enters a liquid state, resulting in the soil's inability to support overlying structures. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand and/or fill material. Liquefaction most often occurs when soils are subject to strong seismically-induced ground shaking, but can also occur due to improper grading and landslides. Lateral spreading consists of lateral movement of gently to steeply sloping saturated soil deposits that is caused by earthquake-induced liquefaction. Liquefaction is a serious hazard because land in areas that experience liquefaction may experience cyclic densification (when non-saturated, cohesionless soil is compacted by earthquake vibrations, causing ground-surface settlement) which can cause major structural damage to buildings and other improvements. There are no seismically-induced liquefaction hazard areas mapped in the City by the CGS or the United States Geological Survey (City of Stockton 2018b). The geotechnical report, which is based on laboratory analysis of site soil samples, concluded that site soils are not susceptible to significant liquefaction due to the predominant presence of clay soils and depth of groundwater beneath the site (Appendix F).

### Landslides/Slope Stability

Landslides occur when rock, soil, unconsolidated sediment, or combinations of such materials shift towards lower elevations due to gravity. Landslide movement can be rapid, as in a soil or rock avalanche, or can creep slowly for extended periods of time. Several factors influence the potential for a given location to be subject to landslide, including slope steepness, slope material, water content, and vegetative cover. The project site and surrounding areas are flat and there is no risk of landslide within or adjacent to the site. Furthermore, the CGS has not mapped any landslide hazard zones in the City (City of Stockton 2018b).

### Project Site Soil Conditions

According to the Web Soil Survey published by the Natural Resource Conservation Service (NRCS), the project site is located in an area generally comprised of Jacktone-Urban land complex which typically is comprised of a clay, sandy to clay loam, and cemented profile (NRCS 2021). To prepare the geotechnical report, four (4) exploratory borings were performed in December 2021 and three (3) cone penetration tests were performed in November 2021 to determine the properties and type of soils that underly the site. The borings revealed that the soils are Pleistocene-age Modesto formation and comprised of approximately 2 to 3 inches of asphalt concrete underlain by approximately 4 to 6 inches of aggregate base. Under the concrete, native subsurface soil conditions were encountered at the boring locations that generally consisted of very stiff to hard, variably cemented, lean clay and sandy lean clay; these materials ranged from approximately three (3) to 15 feet below the ground surface (BGS). The geotechnical report notes that the degree of cementation typically decreased with depth and that interbedded



layers of silty and lean clays were encountered beneath the upper clay soils from approximately 25 to 101 feet BGS. These soil conditions are consistent with the mapped NRCS Web Soil Survey (Appendix F).

### Expansive Soils

Expansive soils are soils that experience swelling (expansion) when moisture content increases and shrinking (contracting) when moisture content decrease. Expansive soils are typically very fine-grained with a high to very high percentage of clay, which can retain a lot of moisture. Sources of moisture that can influence the shrink-swell potential include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. When the soil shrinks, wide cracks in the ground surface can appear. The shrink/swell properties can result in structural hazards such as damage to concrete slabs, foundations, and pavement. Specific building and structure design measures and soil treatment are often needed in areas with expansive soils. According to the geotechnical report, soils on the project site were found to be moderately plastic and have a low to medium expansion potential. Laboratory testing performed for the geotechnical report revealed that the surface and near-surface clay soils are capable of exerting significant expansion pressures on building component such as concrete foundation slabs, exterior flatwork, and pavements (Appendix F).

### Soil Erosion

Soil erosion is the process whereby soil materials are worn away and transported to another area either by wind or water. Rates of erosion can vary depending on the soil material, structure, and placement, as well as human activity. Soil containing high amounts of silt is often easily eroded while sandy soils are less susceptible. Excessive soil erosion can lead to damage of building foundations, roadways and stream embankments. The erosion potential for soils in the project area is variable; however, the majority of the project site is covered with impervious surfaces and landscaping. There are very few areas where soil is exposed to wind and water, and thus the potential for erosion to occur is very low.

### Groundwater

Groundwater was not encountered in borings drilled at the site. However, testing performed at the cone penetration test locations revealed static groundwater levels of approximately 25 to 29 feet BGS. Using groundwater data published by the California Department of Water Resources from a monitoring well located approximately 0.25 miles southeast of the site, it is estimated that groundwater elevations at the project site have fluctuated from approximately 23 to 88 feet BGS between the years 1969 and 2021. Preparers of the geotechnical report also reviewed California Department of Water Resources information that indicated regional groundwater beneath the site is generally present at a depth of approximately 30 to 40 feet BGS (Appendix F).

### Paleontological Resources

Paleontological resources, or fossils, are, by definition, objects that are more than 10,000 years old and provide evidence of and information about past life on earth. They can include remains, traces, and imprints of once-living organisms preserved in rocks and sediments. An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved. Marine invertebrates are generally common, well developed, and well documented and would generally not be considered a unique paleontological resource whereas identifiable vertebrate marine and terrestrial fossils are generally considered scientifically important because they are relatively rare. Surveys previously completed in northern California have found two major divisions of Pleistocene-age fossils: the Irvingtonian (older Pleistocene fauna) and the Rancholabrean (younger Pleistocene and

Holocene fauna). The potential of a particular area to produce a valuable paleontological resource is largely dependent on the geologic age and origin of the underlying rocks. A database search of the University of California Museum of Paleontology at Berkeley was completed in preparation of the City's General Plan EIR. The search concluded that there are over 800 documented fossil localities within San Joaquin County. Of these documented localities, only a few were identified within the City but that it is possible that additional localities exist (City of Stockton 2018b).

### 4.6.3 Regulatory Setting

#### Federal Regulations

##### National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act was passed to reduce the risks to life and property resulting from earthquakes. The act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improving the understanding, characterization, and prediction of hazards and vulnerabilities; improving building codes and land use practices; reducing risk through post-earthquake investigations and education; developing and improving design and construction techniques; improving mitigation capacity; and accelerating application of research results. NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities. Other NEHRP agencies include the National Institute of Standards and Technology, National Science Foundation, and the U.S. Geological Survey.

##### Clean Water Act

The Clean Water Act, administered by the U.S. Army Corps of Engineers, regulates soil disturbance as it affects wetlands and other waters of the United States. The Clean Water Act prohibits discharges of pollutants, including sedimentation from soil erosion to waters of the United States unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) issue both general and individual NPDES permits for certain activities that may result in discharges of pollutants to surface waters. Construction activities that disturb 1 acre or more of soil must comply with the NPDES Construction General Permit (Order 2009 0009 DWQ) that regulates the flow of stormwater from construction sites. Site owners must notify the State, prepare and implement a Stormwater Pollution Prevention Plan (SWPPP), and monitor the effectiveness of the plan. The SWPPP must include best management practices (BMPs) designed to reduce potential impacts to surface water quality, including erosion and sediment control measures.

##### Paleontological Resources Preservation Act

The federal Paleontological Resources Preservation Act of 2002 limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency. Additionally, it specifies these researchers must agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers. This Act incorporates key findings of a report, Fossils on Federal Land and Indian Lands, issued by the Secretary of Interior in 2000, which establishes that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources.

## State Regulations

### Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Act (Public Resources Code [PRC] Sections 2621 through 2630) was passed in 1972 to mitigate the hazard of surface faulting for structures designed for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. A structure for human occupancy is defined as any structure used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as Earthquake Fault Zones around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Before a structure for human occupancy can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, the local agency must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

### Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (PRC Sections 2690 through 2699.6), passed by the California legislature in 1990, addresses earthquake hazards from non-surface fault rupture, including liquefaction and seismically induced landslides. The act established a mapping program for areas that have the potential for liquefaction, strong ground shaking, or other earthquake and geologic hazards.

### California Building Code

The state regulations protecting structures from geo-seismic hazards are contained in the California Code of Regulations, Title 24, Part 2 (the California Building Code), which is updated every three years. These regulations apply to public and private buildings in the state. The current code is the 2019 California Building Code (CBC); however, the 2022 CBC was adopted in December 2021 and will become effective January 1, 2023. The CBC is based on the current (2018) International Building Code and includes enhancements to the sections dealing with existing structures. Seismic-resistant construction design is required to meet more stringent technical standards than those set by previous versions of the CBC.

Construction activities are subject to occupational safety standards for excavation and trenching, as specified in the California Safety and Health Administration regulations (Title 8 of the California Code of Regulations) and in Chapter 33 of the CBC. These regulations specify the measures to be used for excavation and trench work where workers could be exposed to unstable soil conditions. The project would be required to employ these safety measures during excavation and trenching.

### California Department of Health Care Access and Information

The California Department of Health Care Access and Information (HCAI), previously known as the Office of Statewide Health Planning and Development (OSHPD), has approval authority over hospital building design and construction (including fire safety requirements). HCAI is designated as the “enforcing agency” for specified health facilities and has jurisdiction over plan checking and inspection of the design and details of the architectural, structural, mechanical, plumbing, electrical, fire, and panic safety systems. The scope of authority of HCAI includes general acute care hospital buildings, as well as central plant buildings and non-building structures that provide

utility service to buildings under HCAI jurisdiction. A non-hospital building may also fall under HCAI jurisdiction if the building contains elements required for an acute care hospital. Under the Initial Expansion phase, HCAI would review all proposed project components with the exception of the Parking Structure and Plant Maintenance building.

Section 129690(b) of Division 107 of the California Health and Safety Code, states that HCAI requirements may take precedence over local development regulations and design guidelines; this section also states that HCAI is responsible for enforcement of building standards published in the CBC related to hospital buildings rather than local jurisdictions. The HCAI is responsible for approving final building design and construction of new acute care hospital buildings, as well as central plant buildings and non-building structures that provide utility service to buildings under HCAI jurisdiction proposed under the project.

According to Title 24, Part 1, Section 7-117 of California Administrative Code, geotechnical reports for projects under HCAI jurisdiction must be submitted to HCAI for review. Through this process, HCAI would evaluate the geotechnical report, and its recommendations, prior to submittal of project documents for final HCAI plan review. HCAI is responsible for determining if the geotechnical investigation of the site and the reporting of findings are adequate for the project design. The geotechnical report will be submitted to HCAI for their review concurrent with submittal of design and construction drawings.

### State Earthquake Protection Law

The State Earthquake Protection Law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed and constructed to resist stresses produced by lateral forces caused by wind and earthquakes, as provided in the CBC. Chapter 16 of the CBC sets forth specific minimum seismic safety and structural design requirements, requires a site-specific geotechnical study to address seismic issues, and identifies seismic factors that must be considered in structural design.

### California Division of Occupational Safety and Health

Construction activities are subject to occupational safety standards for excavation and trenching, as specified in the California Safety and Health Administration regulations (Title 8 of the California Code of Regulations) and in Chapter 33 of the CBC. These regulations specify the measures to be used for excavation and trench work where workers could be exposed to unstable soil conditions. Development under the proposed project would be required to employ these safety measures during excavation and trenching.

### Paleontological Resources

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under state laws and regulations. Public Resources Code, Chapter 1.7, sections 5097.5 and 30244 regulate removal of paleontological resources from state lands, define unauthorized removal of fossil resources as a misdemeanor, and require mitigation of disturbed sites. Professional standards of practice, such as those adopted by the Society of Vertebrate Paleontology (SVP) Conformable Impact Mitigation Guidelines Committee (2010), offer additional guidance for the control and remediation of adverse effects on significant paleontological resources. The standards include conducting a field survey prior to earth disturbing activities (if applicable); monitoring by a qualified paleontologist of excavation of any previously undisturbed rock features; salvage of any fossil remains; screen washing to recover small specimens (if applicable); cleaning of fossils for curation; identify, catalog and provide for storage of fossils; preparation of a final report.

## Local Regulations

### Envision Stockton 2040 General Plan

The City's Envision Stockton 2040 General Plan Land Use and Safety Elements include the following goals, policies and actions related to geological and soil resources that are relevant to evaluation of the proposed project (City of Stockton 2018a):

Goal LU-5. Protected Resources. Protect, maintain, and restore natural and cultural resources.

Policy LU-5.2. Protect natural resource areas, fish and wildlife habitat, scenic areas, open space areas, agricultural lands, parks, and other cultural/historic resources from encroachment or destruction by incompatible development.

Action LU-5.2D. Require the following tasks by a qualified archaeologist or paleontologist prior to project approval:

- Conduct a record search at the Central California Information Center located at California State University Stanislaus, the University of California Museum of Paleontology at Berkeley, and other appropriate historic or archaeological repositories.
- Conduct field surveys where appropriate.
- Prepare technical reports, where appropriate, meeting California Office of Historic Preservation or other appropriate standards.
- Where development cannot avoid an archaeological or paleontological deposit, prepare a treatment plan in accordance with appropriate standards, such as the Secretary of the Interior's Standards for Treatment of Archaeological Sites.

Action LU-5.2G. Comply with appropriate State and federal standards to evaluate and mitigate impacts to cultural resources, including tribal, historic, archaeological, and paleontological resources.

Goal SAF-2. Hazard Protection. Protect residents and businesses from natural and human-caused hazards.

Policy SAF-2.2. Prepare sufficiently for major events to enable quick and effective response.

Action SAF-2.2C. Require new critical facilities, including hospitals, emergency operations centers, communications facilities, fire stations, and police stations, to be located, designed, and constructed to avoid or mitigate potential risks and ensure functional operation during flood events (i.e., avoid locating in the 100-year and 200-year floodplains), seismic and geological events, fires, and explosions.

### Stockton Municipal Code

#### Title 15 – Buildings and Construction:

Title 15 of the Stockton Municipal Code, Building and Construction, provides standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, installation, materials,

use and occupancy, location and maintenance of all buildings and structures within the City. Chapter 15.40 of this title adopts the 2019 CBC. Note, the CBC is updated on a regular basis and the City complies with the most current adopted version.

Chapter 15.48 serves as the City's Grading and Erosion Control Ordinance. It is intended to protect property and citizens of the City by establishing regulations related to construction activities. Section 15.48.050, Construction and Application, includes a requirement that addresses hazards associated with erosion; it states that, "During construction, construction activities shall be designed and conducted to minimize runoff of sediment and all other pollutants onto public properties and other private properties and into the waters of the United States." Section 15.48.070, Permit Requirements, establishes requirements for a grading permit that apply to the proposed project because it would result in excavation of over 50 cubic yards; these include erosion control measures which are referred to as BMPs. The City is responsible for reviewing grading and erosion control permits and geotechnical studies in accordance with the Ordinance to ensure geologic and soil stability have been properly addressed. Section 15.48.100 requires that projects conform with the City's stormwater management program and State SWPPP requirements outlined in Section 4.6.3, above. Section 15.48.130 requires grading permit holders to have all appropriate grading and erosion control BMPs implemented prior to commencing work; it also requires permanent BMPs be inspected once construction is completed.

## 4.6.4 Impacts and Mitigation Measures

### Methods of Analysis

Impact determinations in this section are based on the potential impact to geology and soils during site clearing, demolition, and construction of the project. The project setting and impact analysis was developed by reviewing available information relating to geology, soils, seismicity, and paleontological resources in the project vicinity, including the City's General Plan and the site-specific Preliminary Geotechnical Investigation prepared by Wallace Kuhl & Associates in March 2022 (Appendix F). The analysis evaluates if the project would directly or indirectly result in increased exposure to health and/or safety risks associated with soil, geologic, or seismic hazards. The geotechnical report, and impact analysis is based on the project's Initial Expansion (Phases 1-4), as described in Table 2-2 of Chapter 2, Project Description. Details of the future Phase 5 of the project are not currently known other than the potential expansion of the Acute Care Hospital Tower and a new parking garage in an undefined location. Impacts are anticipated to be similar and future development under the MDP would be required to comply with applicable mitigation measures described below.

The impact analysis below has been written against the backdrop of CEQA case law addressing the scope of analysis required in EIRs for potential impacts resulting from existing environmental hazards found at the site or in the vicinity of a site for a proposed project. In *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, 377, the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents." (Italics added.) The court reasoned that "ordinary CEQA analysis is concerned with a project's impact on the environment, rather than with the environment's impact on a project and its users or residents." (Id. at p. 378.)



The court did not hold, however, that CEQA never requires consideration of the effects of existing environmental conditions on the future occupants or users of a proposed project. But the circumstances in which such conditions may be considered are narrow: “when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project’s impact on the environment—and not the environment’s impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.” (*Id.* at pp. 377-378, italics added.)

To help readers understand how to conduct impact analysis in light of these general principles, the court provided an example, which, it said, “may be illuminating. Suppose that an agency wants to locate a project next to the site of a long-abandoned gas station. For years, that station pumped gasoline containing methyl tertiary-butyl ether (MTBE), an additive—now banned by California—that can seep into soil and groundwater. [Citations.] Without any additional development in the area, the MTBE might well remain locked in place, an existing condition whose risks—most notably the contamination of the drinking water supply—are limited to the gas station site and its immediate environs. But by virtue of its proposed location, the project threatens to disperse the settled MTBE and thus exacerbate the existing contamination. The agency would have to evaluate the existing condition—here, the presence of MTBE in the soil—as part of its environmental review. Because this type of inquiry still focuses on the project’s impacts on the environment—how a project might worsen existing conditions—directing an agency to evaluate how such worsened conditions could affect a project’s future users or residents is entirely consistent with this focus and with CEQA as a whole.” (*Id.* at p. 389.)

Regardless of these limiting principles under CEQA, implementation of the project must be consistent with the City’s General Plan goals and policies, and all applicable regulations such as CBC standards. As is the case in other sections of this Draft EIR, such policies and standards are not identified as mitigation in this section, and compliance with relevant goals, policies, and federal, state or City requirements are instead described within the impact analysis.

### Thresholds of Significance

A significant impact would occur if development or implementation of the proposed project would do any of the following:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 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
  - strong seismic ground shaking
  - seismic-related ground failure, including liquefaction
  - landslides
- Result in substantial soil erosion or the loss of topsoil.
- Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Result in a cumulatively considerable contribution to adverse effects related to geology, soils, seismicity, and paleontological resources.

### Significance Threshold Criteria Not Applicable to the Proposed Project

Potential impacts regarding septic and alternative waste disposal systems were addressed in the Initial Study (IS) prepared for this project (Appendix B). A brief discussion of conclusions made in the Initial Study is included below.

### Septic and Alternative Waste Disposal Systems

No septic tanks or alternative wastewater disposal systems are proposed as part of the project. The City of Stockton provides wastewater conveyance and treatment service to the Medical Center campus. Provision of wastewater collection, conveyance, and treatment services to the project is discussed further in Section 4.10, Public Utilities. For these reasons, the project would have no impact related to septic tanks or alternative wastewater disposal systems and is not discussed further.

### Project Impacts

Impact 4.6-1      **The proposed project would not expose people or structures to potentially substantial adverse events, including the risk of loss, injury, or death involving rupture of a known earthquake fault.**

Fault rupture occurs when the ground surface is broken due to fault movement during an earthquake. These ruptures generally occur along active fault traces. The Alquist-Priolo Zones Special Studies Act defines active faults as those that have experienced surface displacement or movement during the last 11,000 years. As described above in Section 4.6.2, and according to the CGS Fault Activity Map of California, there are no known active faults located within the City (CGS 2015). The nearest fault to the project site is the Stockton Fault, which is a south-dipping reverse fault that trends east-west across the southern portion of the City. This fault has not been classified as an active fault by the CGS (City of Stockton 2018b). The nearest active fault to the project is the Greenville Fault, approximately 24 miles southwest of the project site. According to the project's geotechnical report, the nearest Alquist-Priolo Fault Zone is the Cleveland Hill Fault which is located approximately 53 miles north of the project site (Appendix F). The project would comply with the CBC and HCAI requirements to ensure that all future structures would be constructed to withstand the potential effects of a fault rupture. As discussed below under Impact 4.6-2, under Senate Bill 1953 (SB 1953), hospital construction is required to meet more stringent seismic standards under the HCAI; please refer to analysis under Impact 4.6-2 for detailed requirements.

The project site is not located on a known active or potentially active earthquake fault trace and the risk of surface rupture is very low. For these reasons, people within the project site would not be exposed to substantial risks related to surface rupture. Further, the proposed project would not change the risk of surface rupture and, therefore, would not exacerbate existing hazards related to surface fault rupture and seismic ground shaking. Thus, exposure of people or structures to the risk of loss, injury, or death involving rupture of a known earthquake fault is **less than significant**.

### Mitigation Measures

None required.

Impact 4.6-2      **The proposed project would not expose people or structures to potentially substantial adverse events, including the risk of loss, injury, or death involving strong seismic ground shaking.**

The proposed project would increase human presence within the project site by expanding medical facilities within the existing Medical Center campus, which would increase the number of people that could be exposed to hazards associated with seismic ground shaking. As discussed in Section 4.6.2, the extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. The distance from an active or potentially active fault zone, which is approximately 22 miles from the City, means that the likelihood of ground shaking is low. Furthermore, the proposed project would not change existing seismic hazards and, therefore, would not exacerbate the potential for seismic ground shaking to occur.

Despite the project site's low likelihood for strong seismic ground shaking, the proposed project would comply with the CBC to ensure that all future structures would be constructed to resist the effects of seismic ground shaking. Furthermore, under Senate Bill 1953 (SB 1953), hospital construction is required to meet more stringent seismic standards under HCAI; the project would be subject to standards listed in Chapter 6 of Title 24 of California Administrative Code, which establishes seismic building regulations to apply to the construction of all acute care hospital facilities in the state. As described in Section 4.6-2, there is a low risk of liquefaction on site due to the lack of susceptible soils.

The project's preliminary geotechnical report concludes that the underlying native soils are capable of supporting the proposed project buildings and associated improvements (Appendix F). The geotechnical report provides preliminary recommendations for the project's building foundations. It recommends that lightly-loaded supportive buildings be constructed on shallow spread or mat foundations; the proposed Acute Care Hospital Tower and garage may be constructed with auger cast-in-place concrete piles and/or on drilled cast-in-place concrete piers. The preliminary geotechnical report also recommends that prior to final design and commencement of construction a design-specific geotechnical investigation of the property be performed that includes additional subsurface exploration, soil sampling, and additional engineering evaluation. This would include specific recommendations regarding site preparation, building foundations, floor support, site drainage, and pavement design. The final geotechnical report would be required by HCAI prior to the issuance of building permits and final plan review. Recommendations per this report would be incorporated into the project plans and specifications and implemented during construction. The final report recommendations would include seismic design parameters to be used in accordance with the current version of the CBC and HCAI regulations to account for earthquake ground motion. Compliance with the design recommendations and engineering methods that specify the type (depth and material) and construction of building would be verified by HCAI prior to issuance of building permits or final plan review.

Seismic hazards and risks cannot be completely eliminated even with site-specific geotechnical design and compliance with the CBC. However, with the project's adherence to all state-mandated seismic code standards and implementation of geotechnical recommendations would significantly reduce potential risks to people and structures due to strong seismic ground shaking. Moreover, the project would not exacerbate the risks that already exist associated with seismic ground shaking. Therefore, the project impact would be **less than significant**.

### Mitigation Measures

None required.

**Impact 4.6-3      The proposed project would not expose people or structures to potentially substantial adverse events, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.**

Soil liquefaction occurs typically when saturated soil layers are located close to the ground surface. During seismic ground shaking, these soils can lose strength and result in horizontal and vertical movements. Liquefaction may also occur in the absence of a seismic event when unconsolidated soil above hardpan becomes saturated with water. The project site and San Joaquin County have not been mapped by the CGS for potential liquefaction hazards (CGS 2015). As discussed in Section 4.6.2, subsurface soil conditions in the project area consist primarily of very stiff to hard, variably cemented, lean clay and sandy lean clay, which are generally not considered susceptible to liquefaction. The preliminary geotechnical report performed a liquefaction analysis to determine factors of safety against liquefaction for soil and groundwater conditions of the project site. Based on the results of this analysis, the depth to liquefiable layers, and the presence of clay soils which predominate the site subsurface, the report concludes that the soils are not susceptible to significant liquefaction-induced settlement or loss of load bearing capacity (Appendix F). The analysis, which is based on boring samples taken throughout the project site and modeling software, also indicated there is very low potential for liquefaction due to potential seismic ground shaking.

Furthermore, final grading and building plans must be designed in accordance with the CBC and HCAI requirements and the recommendations presented in the final design-specific geotechnical report. Because the preliminary geotechnical report found that project site soils are not susceptible to liquefaction and the project would be designed in compliance with the CBC and HCAI requirements and recommendations presented in the final geotechnical report, and because the project would not exacerbate any risks that might already exist related to the possibility of liquefaction, potential impacts associated with liquefaction would be **less than significant**.

#### Mitigation Measures

None required.

**Impact 4.6-4      The proposed project would not expose people or structures to potentially substantial adverse events, including the risk of loss, injury, or death involving landslides.**

Landslides occur as a result of rapid movement of soil masses on unstable slopes. The project site is level, with no hills or sloping ground in the vicinity. Therefore, there is no risk of landslides in the project area. The Seismic Hazard Zones mapped by CGS delineate areas susceptible to landslides; these areas require additional investigation to determine the extent and magnitude of potential ground failure. According to the CGS, the project site is not located within a landslide hazard zone (City of Stockton 2018b). Therefore, an earthquake-induced landslide on the project site is highly unlikely and **no impact** would occur. The proposed project would not exacerbate any risk, based on existing geology, that landslides would occur on the project site.

#### Mitigation Measures

None required.

**Impact 4.6-5      The proposed project would not result in substantial soil erosion or the loss of topsoil.**

The existing Medical Center campus is currently developed with paved surfaces and existing buildings and has minimal areas of exposed soils. However, the project could result in soil erosion and/or the loss of topsoil during project construction. Construction and grading activities associated with site preparation and construction would temporarily increase the exposure of soils on the project site to water and wind erosion. As discussed in Section 4.6.3, because construction activities are anticipated to disturb at least one acre of land area, the project would be required to obtain a Construction General Permit from the SWRCB. The Construction General Permit requires the preparation of a SWPPP by a qualified SWPPP professional. The SWPPP would include implementation of BMPs to avoid or minimize adverse water quality impacts from erosion and sedimentation. BMPs under the SWPPP can be categorized for soil stabilization, sediment control, wind erosion control, tracking control, non-storm water management, waste management, or materials pollution control.

As discussed in Section 4.6.3, the City maintains existing regulatory requirements such as erosion control measures specified in Chapter 15.48 of the Stockton Municipal Code, and in the City's grading permit process. The City also maintains a Storm Water Management Plan (SWMP) that requires implementation of construction BMPs for erosion control, including limitations on disturbance and temporary soil stabilization through the use of mulch, seeding, soil stabilizers, and fiber rolls and blankets (City of Stockton 2009). With implementation of these measures and construction performance standards and preparation and implementation of a SWPPP, project impacts related to soil erosion would be **less than significant**.

### Mitigation Measures

None required.

**Impact 4.6-6      The proposed project would not be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.**

Unstable geologic units or soils are characterized by materials lacking sufficient integrity to support urban development. Potential impacts related to unstable soil including liquefaction and seismically induced settlement are discussed under Impact 4.6-3 above and were found to be less than significant. As discussed in Impact 4.6-3, the project site is not subject to lateral spreading; and as discussed in Impact 4.6-4, the project site is not subject to landslides and the project would not create the potential for landslides.

Subsidence can also occur as a result of differential (i.e., unequal) settlement. The project would not involve any dewatering activities associated with excavation for a below-grade basement for the Acute Care Hospital Tower that could cause soil subsidence or collapse. However, the project site is subject to expansive soils (discussed in detail in under Impact 4.6-7 below) that could potentially cause differential settlement.

The proposed new project buildings would be constructed in flat areas and erosion would be minimized. During construction, the project would adhere to required erosion control measures stipulated in SWPPP, pursuant to the conditions of the Construction General Permit and National Pollution Discharge Elimination System (NPDES) discharge requirements consistent with Section 15.48.100 of the City's Municipal Code to achieve desired water quality outcomes. Thus, any potential erosion impacts would be reduced to levels that are **less than significant**.

## Mitigation Measures

None required.

Impact 4.6-7      **The proposed project would not be located on expansive soil that would create substantial risks to life or property.**

Expansive soils shrink and swell as a result of moisture change. These volume changes can result in damage over time to building foundations, underground utilities, and other subsurface facilities if they are not designed and constructed appropriately to resist the damage associated with changing soil conditions. Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3%; moderate if 3% to 6%; high if 6% to 9%; and very high if more than 9% (NRCS 2019). The project site is located in an area generally comprised of Jacktone-Urban land complex, which has a linear extensibility rating of 7.5% at its surface layer (NRCS 2021).

The preliminary geotechnical report performed laboratory testing of the underlying site soils to assess their expansion potential. This testing revealed the upper three feet of clay soils across the site were found to be moderately plastic and that these clay soils possess low to medium expansion potential. The preliminary geotechnical report concluded that the project's surface clay soils are considered capable of exerting significant expansion pressures on concrete foundation slabs, exterior flatwork, and pavements. The report indicated that on-site native soils are suitable for engineered fill construction; therefore, underlying soils would not need to be replaced and soils would not need to be imported to the project site (Appendix F).

As discussed under Impact 4.6-2, hospital construction is required to meet stringent building standards under the HCAI and CBC. The preliminary geotechnical report requires that a final design-level geotechnical report be prepared and submitted to HCAI for review and approval that demonstrates compliance with these standards. The final report would present geotechnical engineering conclusions and specific recommendations that would address potential issues associated with expansive soils. The final geotechnical report would be required by HCAI prior to the issuance of building permits or final plan review. Recommendations per this report would be incorporated into the project plans and specifications and implemented during construction. Compliance with the design recommendations and engineering methods that specify the type (depth and material) and construction of the building and its foundation would be verified by HCAI to issuance of building permits.

Seismic hazards and risks cannot be eliminated even with site-specific geotechnical design and compliance with the CBC and HCAI requirements. However, with the project's adherence to building code standards and implementation of geotechnical recommendations per the final design-level geotechnical report would significantly reduce potential risks to people and structures due to expansive soils. Moreover, the project would not exacerbate any existing hazards associated with the soil characteristic of the site. Therefore, the project impact would be **less than significant**.

## Mitigation Measures

None required.



Impact 4.6-8      **The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

While few fossil localities have been identified within the City, there are geologic formations that could contain previously unidentified fossils or fossils of potential scientific significance in other geological formations that are not recorded (City of Stockton 2018b). The City's 2040 General Plan includes policies and actions to address the potential to unearth paleontological resources. Specifically, Action LU-5.2D requires preparation of a treatment plan in accordance with the appropriate standards if a paleontological resource cannot be avoided. It is possible that ground-disturbing construction activities associated with the project could disturb these paleontological resources. Therefore, the project could result in a **potentially significant impact** to paleontological resources.

### Mitigation Measures

Mitigation Measure 4.6-8 would require work be stopped when paleontological resources are uncovered until these resources can be evaluated by a qualified paleontologist. With the implementation of this mitigation measure, impacts to paleontological resources would be less than significant.

#### MM 4.6-8:      Unanticipated Paleontological Discovery

- a) Prior to construction, construction personnel shall receive brief "tailgate" training by a qualified archaeologist in the identification of paleontological resources and protocol for notification should such resources be discovered during construction work.
- b) If buried paleontological resources are inadvertently discovered during ground-disturbing activities, work shall stop within 50 feet of the find. Work shall not continue at the discovery site until a qualified paleontologist can examine the find to determine whether it includes or constitutes a unique paleontological resource and, if it is, formulate mitigation recommendations for consideration and approval by the City's Community Development Director (CDD). A unique paleontological resource means a paleontological resource about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the two following criteria: (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or (2) has a special and particular quality such as being the oldest of its type or the best available example of its type. Mitigation options shall include preserving the resource in place or recovering data and creating documentation for transmission to the University of California Museum of Paleontology or another institution of higher education with an established paleontological department or program. Avoidance or preservation in place of unique paleontological resources shall not be required where such avoidance or preservation would preclude the construction of important structures or infrastructure or require exorbitant expenditures, as determined by the City's CDD.

### Cumulative Impacts

The geographic scope for the analysis of cumulative geologic and soils-related impacts consists of the proposed project site and immediate surroundings, as impacts of these kinds depend on the site-specific conditions and features on the project site, such as soil composition and topography. Projects of this scale and nature do not have the ability to alter underlying geologic, seismic, and soil conditions in areas not proximate to the project site. The

project's site-specific impacts therefore would not combine to create cumulative impacts with other projects occurring elsewhere in the City.

The geographic scope for the analysis of cumulative paleontological impacts consists of development slated to occur within the City or the County. Cumulative impacts on paleontological resources consider whether the impacts of the proposed project together with other related projects substantially diminish the number of paleontological resources within the same or similar context or property type.

**Impact 4.6-9      The proposed project would not contribute to a cumulatively significant impact related to geologic and soils-related impacts.**

The City's General Plan EIR evaluated potential cumulative geological impacts that could arise from future development under the City's General Plan including within the City's Sphere of Influence boundary. The EIR concluded that cumulative impacts would remain less than significant because new development would be subject to the CBC and Municipal Code requirements in addition to the City's grading and building permit process. The General Plan EIR found that compliance with these requirements would reduce the cumulative impacts from land development related to seismic shaking, seismically induced landslides and liquefaction, expansive soils, and erosion and loss of topsoil to less than significant (City of Stockton 2018b).

Future projects within the area close to the project site could present geologic impacts. However, these projects would be subject to the same laws and regulations as the proposed project and would be required to implement project-specific mitigation consistent with applicable laws and regulations to reduce any significant geologic or soils impacts. For these reasons and because there is not an underlying cumulative impact that the project could contribute to, cumulative geologic impacts would be less than significant.

For these reasons, the project would not have the potential to contribute to an existing cumulative impact. The project would not increase geologic hazards on the project site or within the surrounding area. Thus, the project's impacts with respect to geologic and soils-related impacts are less than cumulatively considerable and **less than significant**.

### Mitigation Measures

None required.

**Impact 4.6-10      The proposed project would not contribute to a cumulatively significant impact related to loss of paleontological resources.**

As described above, the project would result in potentially significant impacts associated with paleontological resources, but this impact would be reduced to a less-than-significant level with implementation of the mitigation measure identified in this section.

The General Plan EIR also found that implementation of the City's General Plan would result in a less-than-significant impact to paleontological resources through compliance with General Plan Action LU-5.2.D which requires the identification and protection of paleontological resources, including through preparation of a treatment plan. The EIR also determined that compliance with the federal, state, and local laws and regulations would reduce potential impacts to paleontological resources to a less-than-significant level. However, as discussed under impact 4.6-8, it is possible that ground-disturbing construction activities associated with the project could disturb

paleontological resources. Thus, the project, together with other past, present, and probable future projects, would not combine to create a significant cumulative impact. Implementation of Mitigation Measure 4.6-8 would require work be stopped when paleontological resources are uncovered until these resources can be evaluated by a qualified paleontologist. With the implementation of this mitigation measure, impacts to paleontological resources would be **less than significant, and less-than-cumulatively considerable, with mitigation.**

## Mitigation Measures

Implementation of Mitigation Measure 4.6-8.

### 4.6.5 References

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## 4.7 Greenhouse Gases

### 4.7.1 Introduction

This section evaluates the potential effects on greenhouse gas (GHG) emissions associated with development and operation of the St. Joseph Medical Center of Stockton Hospital Expansion Project (“proposed project”). This section describes the existing GHG emissions conditions in the project region; outlines applicable federal, state, and regional regulations pertaining to GHG emissions; and identifies potential project-specific and cumulative impacts on air quality and measures to minimize these impacts.

Comments received in response to the Notice of Preparation from the public include concerns regarding GHG emissions associated with the increase of single occupant vehicle trips from the Sierra Club Delta-Sierra Group. A copy of the Notice of Preparation and comments received are included in Appendix A.

The primary sources referenced to prepare this section include the Envision Stockton 2040 General Plan (City of Stockton 2018), City of Stockton Climate Action Plan (City of Stockton 2014), and the San Joaquin Valley Air Pollution Control District’s (SJVAPCD) Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (SJVAPCD 2009b). In addition, Dudek completed modeling of the GHG emissions associated with project construction and operation using the California Emissions Estimator Model (CalEEMod) Version 2022 (CAPCOA 2022). The CalEEMod modeling outputs are provided in Appendix C.

### 4.7.2 Environmental Setting

#### Climate Change Overview

Climate change refers to any significant change in measures of climate—such as temperature, precipitation, or wind patterns—lasting for an extended period of time (decades or longer). The Earth’s temperature depends on the balance between energy entering and leaving the planet’s system. Many factors, both natural and human, can cause changes in Earth’s energy balance, including variations in the sun’s energy reaching Earth, changes in the reflectivity of Earth’s atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth’s atmosphere (EPA 2017).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth’s surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short-wave radiation emitted by the Sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth’s temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth’s surface temperature to rise.

The scientific record of the Earth’s climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. However, recent climate changes, in particular the warming observed over the past century, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of

warming since the mid-twentieth century and are the most significant driver of observed climate change (IPCC 2013; EPA 2017). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

## Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>) (see also 14 CCR 15364.5).<sup>1</sup> Some GHGs, such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O are emitted into the atmosphere through natural processes and human activities. Of these gases, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO<sub>2</sub>, include fluorinated gases, such as HFCs, PFCs, and SF<sub>6</sub>, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.<sup>2</sup>

**Carbon Dioxide.** CO<sub>2</sub> is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO<sub>2</sub> include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO<sub>2</sub> are from the combustion of fuels such as coal, oil, natural gas, and wood and changes in land use.

**Methane.** CH<sub>4</sub> is produced through both natural and human activities. CH<sub>4</sub> is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

**Nitrous Oxide.** N<sub>2</sub>O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N<sub>2</sub>O. Sources of N<sub>2</sub>O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N<sub>2</sub>O as a propellant (such as in rockets, racecars, and aerosol sprays).

**Fluorinated Gases.** Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric O<sub>3</sub>-depleting substances (e.g., CFCs, HCFCs, and halons). The most prevalent fluorinated gases include the following:

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<sup>1</sup> Climate forcing substances include GHGs and other substances such as black carbon and aerosols.

<sup>2</sup> The descriptions of GHGs are summarized from the IPCC Fourth Assessment Report (2007), CARB's "Glossary of Terms Used in GHG Inventories" (2021a), and EPA's "Climate Change" (2017).

**Hydrofluorocarbons.** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to O<sub>3</sub>-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.

**Perfluorocarbons.** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the ozone depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.

**Sulfur Hexafluoride.** SF<sub>6</sub> is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.

**Nitrogen Trifluoride.** NF<sub>3</sub> is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

**Chlorofluorocarbons.** CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere), and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric O<sub>3</sub>.

**Hydrochlorofluorocarbons.** HCFCs are a large group of compounds, whose structure is very close to that of CFCs—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

**Black Carbon.** Black carbon is a component of PM<sub>2.5</sub>, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived substance that varies spatially, which makes it difficult to quantify the global warming potential (GWP). Diesel exhaust emissions are a major source of black carbon and are TACs that have been regulated and controlled in California for several decades to protect public health. In relation to declining DPM as a result of CARB's regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 70% between 1990 and 2010, with 95% control expected by 2020 (CARB 2014).

**Water Vapor.** The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

**Ozone.** Tropospheric O<sub>3</sub>, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O<sub>3</sub>, which is created by the interaction between solar ultraviolet radiation and molecular oxygen, plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O<sub>3</sub>, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.



**Aerosols.** Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

### Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017). The Intergovernmental Panel on Climate Change (IPCC) developed the GWP concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO<sub>2</sub>; therefore, GWP-weighted emissions are measured in metric tons of CO<sub>2</sub> equivalent (MT CO<sub>2</sub>e).

The current version of CalEEMod (Version 2022) assumes that the GWP for CH<sub>4</sub> is 25 (so emissions of 1 MT of CH<sub>4</sub> are equivalent to emissions of 25 MT of CO<sub>2</sub>), and the GWP for N<sub>2</sub>O is 298, based on the IPCC's Fourth Assessment Report (IPCC 2007).

CalEEMod was also used to estimate fugitive GHG emissions from refrigerants used for air conditioning (A/C) and refrigeration equipment associated with the proposed project. Different types of refrigeration equipment are used by different types of land uses and CalEEMod generates default refrigerant values based on land use subtype and industry data from the US EPA. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate but does not quantify emissions from the disposal of refrigeration and A/C equipment at the end of its lifetime.

### Greenhouse Gas Inventories and Climate Change Conditions

#### Global Inventory

Anthropogenic GHG emissions worldwide in 2021 (the most recent year for which data is available) totaled approximately 49,800 million metric tons (MMT) CO<sub>2</sub>e, excluding land use change and forestry (PBL 2022). Six countries (China, the United States, the Russian Federation, India, and Japan) and the European Union accounted for approximately 58% of the total global emissions, or approximately 28,780 MMT CO<sub>2</sub>e (PBL 2022). Table 4.7-1 presents the top GHG-emissions-producing countries.

**Table 4.7-1. Six Top Greenhouse Gas Producer Countries and the European Union**

| Emitting Countries (listed in order of emissions) | Greenhouse Gas Emissions (MMT CO <sub>2</sub> e) |
|---|--|
| China   | 14,300   |
| United States                                     | 5,640  |
| European Union                                    | 3,440  |
| India   | 2,210  |
| Russian Federation                                | 1,160  |
| Japan   | 2,030  |
| <b>Total</b>                                      | <b>28,780</b>                                    |

**Source:** PBL 2022.

**Note:** MMT CO<sub>2</sub>e = million metric tons of carbon dioxide equivalent.

## National and State Inventories

According to the 2021 U.S. Environmental Protection Agency Inventory of U.S. GHG Emissions and Sinks: 1990–2019, total U.S. GHG emissions were approximately 6,558 MMT CO<sub>2e</sub> in 2019 (EPA 2021). The primary GHG emitted by human activities in the United States was CO<sub>2</sub>, which represented approximately 80.1% of total GHG emissions (5,256 MMT CO<sub>2e</sub>). The largest source of CO<sub>2</sub>, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 74.1% of CO<sub>2</sub> emissions in 2019 (4,857 MMT CO<sub>2e</sub>). Relative to the 1990 emissions level, gross U.S. GHG emissions in 2019 were 1.8% higher; however, the gross emissions were down from a high of 15.6% above the 1990 level that occurred in 2007. GHG emissions decreased from 2018 to 2019 by 1.7% (113 MMT CO<sub>2e</sub>) and, overall, net emissions in 2019 were 13% below 2005 levels (EPA 2021).

According to California’s 2000–2020 GHG emissions inventory (2022 edition), California emitted 369 MMT CO<sub>2e</sub> in 2020, including emissions resulting from out-of-state electrical generation (CARB 2022a). The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high-GWP substances, and recycling and waste. Table 4.7-2 presents California GHG emission source categories (as defined in CARB’s 2008 Scoping Plan) and their relative contributions to the emissions inventory in 2020.

**Table 4.7-2. Greenhouse Gas Emissions Sources in California**

| Source Category                 | Annual GHG Emissions (MMT CO <sub>2e</sub> ) | Percent of Total |
|---------------------------------|--|------------------|
| Transportation                  | 135.8  | 37               |
| Industrial uses                 | 73.3   | 20               |
| Electricity generation          | 59.5   | 16               |
| Residential and commercial uses | 38.7   | 10               |
| Agriculture                     | 31.6   | 9                |
| High-GWP substances             | 21.3   | 6                |
| Recycling and waste             | 8.9  | 2                |
| <b>Total<sup>a</sup></b>        | <b>369.2</b>                                 | <b>100</b>       |

**Source:** CARB 2022a.

**Notes:** GHG = greenhouse gas; MMT CO<sub>2e</sub> = million metric tons of carbon dioxide equivalent; GWP = global warming potential. Emissions reflect 2020 California GHG inventory.

<sup>a</sup> Total may not sum precisely due to rounding.

Between 2000 and 2020, per capita GHG emissions in California dropped from a peak of 13.8 MT per person in 2001 to 9.3 MT per person in 2020, representing a 33% decrease. From 2000 to 2020, the carbon intensity of California’s economy decreased by 49% while the gross domestic product (GDP) increased by 56% (CARB 2022a). Likely in part due to the COVID-19 pandemic, GDP fell 2.8% in 2020 while the emissions per GDP declined by 6.1% compared to 2019 (CARB 2022a). (CARB 2022a). The declining trend in GHG emissions, coupled with programs that will continue to provide additional GHG reductions going forward, demonstrates that California achieved the 2020 target of 431 MMT CO<sub>2e</sub> in 2014.

## City of Stockton Inventory

Table 4.7-3 presents the City’s 2005 baseline GHG emissions and the percent contribution of each emissions source.

**Table 4.7-3. City of Stockton Baseline Greenhouse Gas Emissions Inventory (2005)**

| Emissions Source         | Annual GHG Emissions (MT CO <sub>2</sub> e/year) | Percent of Total |
|--------------------------|--|------------------|
| Agriculture              | 928  | <1               |
| Building Energy          | 776,186  | 33               |
| High Global Warming GHG  | 100,931  | 4                |
| Off-Road Equipment       | 176,431  | 8                |
| On-Road Transportation   | 1,132,265  | 48               |
| Solid Waste Management   | 65,720   | 3                |
| Wastewater Treatment     | 99,777   | 4                |
| Water Importation        | 8,694  | <1               |
| <b>Total<sup>a</sup></b> | <b>284,380</b>                                   | <b>100</b>       |

**Source:** City of Stockton 2014.

**Notes:** GHG = greenhouse gas; MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent per year.

<sup>a</sup> Total may not sum precisely due to rounding.

As shown in Table 4.7-3, the primary generators of GHGs within the City were attributed to on-road transportation and building energy, accounting for 48% and 33% of the City's GHG emissions in 2005, respectively.

### Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 Intergovernmental Panel on Climate Change Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature for the decade 2006–2015 was 0.87 °C, or likely between 33.35 °C and 33.78 °C, higher than the average over the 1850–1900 period (IPCC 2018). Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Human activities are estimated to have caused approximately 1.0 °C (1.8 °F) of global warming above pre-industrial levels, with a likely range of 0.8 °C to 1.2 °C (1.4 °F to 2.2 °F) (IPCC 2018). Global warming is likely to reach 1.5 °C (2.7 °F) between 2030 and 2052 if it continues to increase at the current rate (IPCC 2018).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting the state. The Office of Environmental Health Hazard Assessment identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernable evidence that climate change is occurring within the state and is having significant, measurable impacts. Changes in the state's climate have been observed including an increase in annual average air temperature with record warmth from 2012 to 2016, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days (i.e., increases in energy usage for cooling on hot days) and a decrease in heating degree days (i.e., decreases in energy usage for heating on cold days), and an increase in variability of statewide precipitation (OEHHA 2018).

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers, and snowpack—on which the state depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the state's annual water supply. Impacts of climate change on physical systems have been observed such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters (OEHHA 2018).

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life-cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses a threat to public health as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California, as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The California Natural Resources Agency has released four California Climate Change Assessments (2006, 2009, 2012, and 2018b), which have addressed the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments need for information to support action in their communities, the Fourth Assessment (2018) includes reports for nine regions of the state, including the San Joaquin Valley Region, where the project is located. Key projected climate changes for the San Joaquin Valley Region include the following (CNRA 2018):

- Continued future warming over San Joaquin Valley Region. Across the region, average maximum temperatures are projected to increase around 5°F to 8°F by the late century.
- Snowpack in the Sierra Nevada has served as an essential water storage in the San Joaquin Valley, providing water during the drier season. However, snowpack is gradually decreasing at high elevations and is projected to become scant at lower elevations by the end of the century.
- As temperature increases, earlier snowmelt will shift peak flows by 2 to 4 months by the end of the century. This shift may reduce surface water storage, increasing the mismatch between when the water is available (winter and spring) and when most of the water is used (summer).
- Precipitation will likely be more intense, increasing the fraction of precipitation falling from November to March from 75% (current conditions) to 80% (by the end of the century). This translates into longer dry seasons with 20% less precipitation in average that may lead to increased groundwater pumping to compensate the diminished surface water supplies.
- Sea level rise increases flooding risk in Delta communities and San Joaquin County cities such as Stockton, threatening over 10,000 people. Over the past 100 years, sea level has risen 8 inches (20 cm), and it could rise 2 feet (74 cm) by mid-century and 3.5 feet (107 cm) by the end of the century.

### 4.7.3 Regulatory Setting

#### Federal Regulations

This section presents a description of the laws, regulations, and plans relevant to GHGs, which may be applicable to the proposed project. Please see Appendix C for additional regulations.

#### Federal Vehicle Standards

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

- The administrator found that elevated concentrations of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>—in the atmosphere threaten the public health and welfare of current and future generations. This is the “endangerment finding.”
- The administrator further found that the combined emissions of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the “cause or contribute finding.”

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act (42 U.S.C. § 7401).

In 2007, in response to the *Massachusetts v. EPA* U.S. Supreme Court ruling, the Bush Administration issued Executive Order (EO) 13432, directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016 (75 FR 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO<sub>2</sub> in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 FR 62624–63200). On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 through 2018. The standards for CO<sub>2</sub> emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this

regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6% to 23% over the 2010 baselines (76 FR 57106–57513).

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all sizes of buses and work trucks. The final standards are expected to lower CO<sub>2</sub> emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

On April 2, 2018, the EPA, under administrator Scott Pruitt, reconsidered the final determination for light-duty vehicles and withdrew its previous 2017 determination, stating that the current standards may be too stringent and therefore should be revised as appropriate (EPA 2019).

In August 2018, EPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards then in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2% to 3% of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of one degree Celsius by 2100 (EPA and NHTSA 2018). California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives.

On January 20, 2021, President Biden issued EO 13990, *Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis*, which directed NHTSA to consider publishing for notice and comment a proposed rule suspending, revising, or rescinding the SAFE Vehicles Final Rule by July 2021. NHTSA and EPA released the final rule in 2021 and released the Final Environmental Impact Statement (EIS) in March 2022 for model years 2024 – 2026, which will reduce fuel use by more than 200 billion gallons through 2050, as compared to continuing under the old standards (NHTSA 2022). EPA's action concludes its reconsideration of the 2019 SAFE-1 rule by finding that the actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.

### State Regulations

The statewide GHG emissions regulatory framework is summarized in this subsection by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, water, solid waste, and other state actions. The following text describes EOs, Assembly Bills (ABs), Senate Bills (SBs), and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

### State Climate Change Targets

The state has taken a number of actions to address climate change. These actions are summarized below, and include EOs, legislation, and CARB plans and requirements.

#### AB 32

In furtherance of the goals established in EO S-3-05 (discussed below), the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006 (California Health and Safety Code Sections 38500-38599 et seq.). AB 32



provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020, and initiate the transformations required to achieve the state's long-range climate objectives.

### SB 32 and AB 197

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions-reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to the Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions-reduction measures when updating the scoping plan.

### EO S-3-05

EO S-3-05 (June 2005) identified GHG emissions-reduction targets and laid out responsibilities among the state agencies for implementing the EO and for reporting on progress toward the targets. This EO established the following targets:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80% below 1990 levels

EO S-3-05 also directed the California EPA to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry.

### EO B-30-15

EO B-30-15 (April 2015) identified an interim GHG-reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050, as set forth in S-3-05. To facilitate achieving this goal, EO B-30-15 called for CARB to update the Scoping Plan to express the 2030 target in terms of MMT CO<sub>2</sub>e. The EO also called for state agencies to continue to develop and implement GHG emission-reduction programs in support of the reduction targets.

### EO B-55-18

EO B-55-18 (September 2018) establishes a statewide policy for the state to achieve carbon neutrality as soon as possible (no later than 2045) and achieve and maintain net negative emissions thereafter. The goal is in addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

## AB 1279

The Legislature enacted AB 1279, the California Climate Crisis Act, in September 2022. The bill declares the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. Additionally, the bill requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels.

### CARB's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a “scoping plan” for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (California Health and Safety Code Section 38561[a]), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan: The Climate Change Proposed Scoping Plan: A Framework for Change (Scoping Plan). The Scoping Plan included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission-reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EOs S-3-05 and B-16-2012 (CARB 2014). The First Update concluded that California was on track to meet the 2020 target, but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050 including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

In December 2017, CARB released the 2017 Climate Change Scoping Plan Update (Second Update) for public review and comment (CARB 2017). The Second Update builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond. The strategies' “known commitments” include implementing renewable energy and energy efficiency (including the mandates of SB 350), increased stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increased stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, the Second Update recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%. The Second Update was approved by CARB's Governing Board on December 14, 2017.

On December 15, 2022, CARB approved the *Final 2022 Scoping Plan for Achieving Carbon Neutrality*, which outlines the state's plan to reach carbon neutrality by 2045 or earlier, while also assessing the progress the state is making toward reducing GHG emissions by at least 40% below 1990 levels by 2030, as is required by SB 32 and laid out in the Second Update. The carbon neutrality goal requires CARB to expand proposed actions from only the reduction of anthropogenic sources of GHG emissions to also include those that capture and store carbon (e.g., through natural and working lands, or mechanical technologies). The carbon reduction programs build on and accelerate those currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel

fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen<sup>3</sup> (CARB 2022b).

The *2022 Scoping Plan* also emphasizes that there is no realistic path to carbon neutrality without carbon removal and sequestration, and to achieve the state’s carbon neutrality goal, carbon reduction programs must be supplemented by strategies to remove and sequester carbon. Strategies for carbon removal and sequestration include carbon capture and storage (CCS) from anthropogenic point sources, where CO<sub>2</sub> is captured as it leaves a facility’s smokestack and is injected into geologic formations or used in industrial materials (e.g., concrete); and carbon dioxide removal (CDR) from ambient air, through mechanical (e.g., direct air capture with sequestration [DACs]) or nature-based (e.g., management of natural and working lands) applications.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and the EOs; it also establishes an overall framework for the measures that will be adopted to reduce California’s GHG emissions. A project is considered consistent with the statutes and EOs if it would meet the general policies in reducing GHG emissions in order to facilitate the achievement of the state’s goals and would not impede attainment of those goals.

### CARB’s Regulations for the Mandatory Reporting of Greenhouse Gas Emissions

CARB’s Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (17CCR 95100–95157) incorporated by reference certain requirements that EPA promulgated in its Final Rule on Mandatory Reporting of Greenhouse Gases (40 FR Section 98). Specifically, section 95100(c) of the Mandatory Reporting Regulation incorporated those requirements that EPA promulgated in the Federal Register on October 30, 2009; July 12, 2010; September 22, 2010; October 28, 2010; November 30, 2010; December 17, 2010; and April 25, 2011. In general, entities subject to the Mandatory Reporting Regulation that emit over 10,000 MT CO<sub>2</sub>e per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT CO<sub>2</sub>e per year threshold are required to have their GHG emissions report verified by a CARB-accredited third party.

### Assembly Bill 1757

AB 1757 (September 2022) requires the CNRA to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions that reduce GHG emissions for future years 2030, 2038, and 2045. These targets are to be determined by no later than January 1, 2024, and are established to support the state’s goals to achieve carbon neutrality and foster climate adaptation and resilience.

### Building Energy

#### Title 24, Part 6

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California’s building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings

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<sup>3</sup> Green hydrogen refers to hydrogen that is generated by renewable energy or from low-carbon power, and has significantly lower associated carbon emissions than grey hydrogen, which is produced using natural gas and makes up the majority of hydrogen production. For the purposes of the *2022 Scoping Plan*, the term “green hydrogen” is not limited to only electrolytic hydrogen produced from renewables.

in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC) (and revised if necessary) (California Public Resources Code [PRC] Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of “reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy” (PRC Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402[d]) and cost effectiveness (PRC Sections 25402[b][2] and [b][3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2022 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2023. The 2022 Title 24 Building Energy Efficiency Standards further reduce energy used and associated GHG emissions compared to prior standards. In general, single-family residences built to the 2022 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2022 standards will use approximately 53% less energy than those under the 2016 standards (CEC 2018).

The CEC adopted the 2022 Title 24 Energy Code in August 2021 and the California Building Standards Commission approved incorporating the updated code into the California Building Standards Code in December 2021. The 2022 Energy Code will go into effect on January 1, 2023. The 2022 standards focus on four key areas in new construction: encouraging electric heat pump technology and use; establishing electric-ready requirements when natural gas is installed; expanding solar photovoltaic system and battery storage standards; and strengthening ventilation standards to improve indoor air quality. Notably, the City’s CAP was developed in accordance with the 2013 Energy Code, which went into effect on July 1, 2014. Since the adoption of the 2013 Energy Code, healthcare facilities are now required to comply with Title 24 standards, including, specifically, the changes due to lighting upgrades. Key lighting changes to the Energy Code since approval of the City’s CAP, that apply to nonresidential buildings such as healthcare facilities include:

- **Demand-responsive Lighting Controls:** There is a new trigger in §110.12(c) based on lighting wattage, not square footage. When general and all other lighting is subject to the multilevel requirements of §130.1(b) for a project 4,000 watts or more, demand-responsive controls are required. A demand-response signal must be capable of automatically reducing general lighting as specified in Table 130.1-A requirements. All other lighting can also be included but is not required.
- **Daylighting Controls:** Secondary daylighting controls are now mandatory along with primary and skylit daylighting controls.
- **Lighting power density.** The Energy Code gives healthcare facilities a light power allowance of 0.9 watts per square foot.

Other changes, including some lighting control requirements for multi-level lighting systems, shut-off controls, and demand responsive controls, are not relevant for healthcare facilities. The 2022 Energy Code also expands on solar photovoltaic (PV) system and battery storage standards for nonresidential buildings. The solar access roof area (SARA) includes the area of a building’s roof space capable of structurally supporting a PV system and includes the area of all roof spaces on covered parking areas, carports and all other newly constructed structures on the site that are compatible with supporting a PV system per California Building Code Section 1511.2. The 2022 Energy Code is designed to push new commercial buildings to offset 60% or more of typical energy use with on-site PV energy, with batteries installed to manage the load and reduce energy export to the electric grid during peak solar periods.

## Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24), which is commonly referred to as CALGreen, establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The 2022 CALGreen standards are the current applicable standards. For nonresidential projects, which includes projects with both residential and nonresidential components, some of the key mandatory CALGreen 2022 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, EV charging stations, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, excavated soil and land clearing debris, and commissioning (24 CCR Part 11). The CALGreen standards also include voluntary efficiency measures that are implemented at the discretion of local agencies and applicants. Compliance with the CALGreen code is enforced through the building permit process.

## Renewable Energy and Energy Procurement

SB 1078, SB 1368, EO S-14-08, EO S-21-09 and SB X1-2, and SB 1020

SB 1078 (2002) (California Public Utilities Code Section 399.11 et seq.) established the Renewables Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010 (see SB 107, EO S-14-08, and EO S-21-09).

SB 1368 (2006), required the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities (California Public Utilities Code Section 8340-8341 et seq.). These standards must be consistent with the standards adopted by the California Public Utilities Commission (CPUC). EO S-14-08 (2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. This EO required that all retail suppliers of electricity in California serve 33% of their load with renewable energy by 2020. Furthermore, the EO directed state agencies to take appropriate actions to facilitate reaching this target. The CNRA, through collaboration with CEC and the California Department of Fish and Wildlife, was directed to lead this effort.

EO S-21-09 (2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. CARB was further directed to work with CPUC and CEC to ensure that the regulation builds upon the RPS program and was applicable to investor-owned utilities, publicly owned utilities, direct access providers, and community choice providers. Under this order, CARB was to give the highest priority to those renewable resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health, and those that can be developed the most quickly in support of reliable, efficient, cost-effective electricity system operations. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard; however, this regulation was not finalized because of subsequent legislation (SB X1-2) signed by Governor Brown in April 2011.

SB X1-2 expanded RPS by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (30 megawatts or less), digester gas,



municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location.

SB 350 (October 2015, Clean Energy and Pollution Reduction Act) further expanded the RPS by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (e.g., heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal. Regarding mobile sources, as one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see California Public Utilities Code Section 740.12).

SB 100 (2018) increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

SB 1020 (September 2022) revises the standards from SB 100, requiring the following percentage of retail sales of electricity to California end-use customers to come from eligible renewable energy resources and zero-carbon resources: 90% by December 31, 2035, 95% by December 31, 2040, and 100% by December 31, 2045.

### Mobile Sources

#### CARB's Mobile Source Strategy

On May 16, 2016, CARB released the 2016 Mobile Source Strategy that demonstrates how the state can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next 15 years. The actions contained in the 2016 Mobile Source Strategy will deliver broad environmental and public health benefits, as well as support much needed efforts to modernize and upgrade transportation infrastructure, enhance system-wide efficiency and mobility options, and promote clean economic growth in the mobile sector. The 2016 Mobile Source Strategy would also result in a 45% reduction in GHG emissions and a 50% reduction in the consumption of petroleum-based fuels (CARB 2016).

#### State Vehicle Standards (AB 1493 and EO B-16-12)

AB 1493 (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO<sub>2</sub> emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. It ordered CARB, CEC, CPUC, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish



benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

As explained under the “Federal Vehicle Standards” description above, EPA and NHTSA approved the SAFE Vehicles Rule Part One and Two, which revoked California’s authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. As the EPA rule is the subject of pending legal challenges, this analysis continues to utilize the best available information at this time, as set forth in EMFAC.

### Heavy-Duty Diesel

The Heavy-Duty Truck and Bus Regulation that went into effect January 2012, requires diesel particulate matter filters be applied to newer heavier trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. CARB adopted the proposed amendments to the Heavy-Duty Truck and Bus Regulation on December 31, 2014, to reduce diesel particulate matter, a major source of black carbon, and oxides of nitrogen emissions from heavy-duty diesel vehicles (13 CCR Part 2025). The rule requires nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxic Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than 5 minutes at any location (13 CCR Part 2485).

### SB 375

SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires the state’s 18 regional metropolitan planning organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP) that will achieve the GHG reduction targets set by CARB. If a MPO is unable to devise an SCS to achieve the GHG reduction target, the MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code, Section 65080(b)(2)(K), an SCS does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city’s or county’s land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

On June 28, 2018, the San Joaquin Council of Governments (SJCOG) board adopted the 2018 Regional Transportation Plan and Sustainable Communities Strategy (2018 RTP/SCS), which includes a target of 12% per capita reduction by 2020 and a 16% per capita reduction by 2035. The 2018 RTP/SCS is a long-range plan for transportation projects within the planning area. The 2018 RTP/SCS emphasizes the need for local initiatives that can reduce the region’s GHG emissions that contribute to climate change, an issue that is largely outside the focus of local attainment plans. The 2018 RTP/SCS also emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the

economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

### Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars (ACC) program (January 2012) is an emission-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2012). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025, cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The zero-emission vehicle program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of zero-emission vehicles and plug-in hybrid EVs in the 2018 to 2025 model years.

The ACC II program is currently in development to establish the next set of low-emission vehicle and zero-emission vehicle requirements for model years after 2025 to contribute to meeting federal ambient air quality ozone standards and California's carbon neutrality standards (CARB 2021b). The main objectives of ACC II are:

1. Maximize criteria and GHG emission reductions through increased stringency and real-world reductions.
2. Accelerate the transition to zero-emission vehicles through both increased stringency of requirements and associated actions to support wide-scale adoption and use.

An ACC II rulemaking package, which will consider technological feasibility, environmental impacts, equity, economic impacts, and consumer impacts, is anticipated to be presented to CARB for consideration in June 2022. In March 2022, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and zero emission vehicle (ZEV) sales mandate (EPA 2022). This action concludes the agency's reconsideration of 2019's SAFE I by finding that the actions taken under the previous administration as a part of SAFE I were decided in error and are now entirely rescinded.

### Advanced Clean Trucks Regulation

The Advanced Clean Trucks Regulation was also approved by CARB in 2020. The purpose of the Advanced Clean Trucks Regulation is to accelerate the market for zero-emission vehicles in the medium- and heavy-duty truck sector and to reduce air pollutant emissions generated from on-road mobile sources (CARB 2021d).

### Solid Waste

AB 939, AB 341, AB 1826, and AB 1383

In 1989, AB 939, known as the Integrated Waste Management Act (PRC Section 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle conducted several general stakeholder workshops and several focused workshops and in August 2015 published a discussion document titled AB 341 Report to the Legislature, which identifies five priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020, legislative and regulatory recommendations and an evaluation of program effectiveness (CalRecycle 2015).

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

SB 1383 (Chapter 395, Statutes of 2016) establishes targets to achieve a 50% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75% reduction by 2025. CalRecycle was granted the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20% of currently disposed edible food is recovered for human consumption by 2025 (CalRecycle 2019).

## Local Regulations

### San Joaquin Valley Air Pollution Control District

The SJVAPCD does not regulate GHG emissions directly through its permitting responsibilities for stationary sources. The SJVAPCD, however, can have an impact on GHGs from new and modified stationary sources when acting as a lead agency for CEQA. The SJVAPCD implements its GHG policies and reviews whether new or modified stationary sources will implement best performance standards (BPSs).

In 2009, the SJVAPCD developed an internal policy and guidance for local land use agencies to use in evaluating GHG impacts under CEQA. In the Final Staff Report – Addressing GHG Emissions Impacts under the California Environmental Quality Act (SJVAPCD 2009), the SJVAPCD reviewed potential GHG significance thresholds and approaches suggested by or adopted by the following entities, ranging from quantification of a project's GHG impacts without a recommended significance threshold to a zero threshold to specific significance thresholds for different kinds of projects (e.g., residential, mixed use, industrial, plans).<sup>4</sup>

- CARB – “Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act”

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<sup>4</sup> These documents encompassed the primary approaches for establishing significance thresholds in the period prior to the March 18, 2010 effective date of revisions of the CEQA Guidelines in accordance with SB 97. Additional guidance regarding assessment of GHG impacts were provided in the revised CEQA Guidelines and accompanying Final Statement of Reasons for Regulatory Action - Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97 (CNRA 2009). In addition, the California appellate courts and the Supreme Court have more recently considered CEQA cases and, in some cases, issued published decisions that provide additional direction regarding the appropriateness of certain GHG assessment methodologies and significance thresholds.

- Office of Planning and Research – “Technical Advisory – CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review” and “Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions and Public Workshop Announcement”
- California Air Pollution Control Officers Association (CAPCOA) – CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act
- Association of Environmental Professionals – “Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents”
- South Coast Air Quality Management District – “Draft Guidance Document – Interim CEQA GHG Significance Threshold”
- Bay Area Air Quality Management District – Draft revisions to California Environmental Quality Act Air Quality Guidelines
- Sacramento Metropolitan Air Quality Management District – “Addressing Climate Change in CEQA Documents”

The following discussion summarizes the SJVAPCD’s conclusions about various categories of GHG significance thresholds.

**Zero Threshold** – The SJVAPCD concluded that “Although a zero threshold is appealing in its simplicity; execution of a zero threshold would be difficult or impossible” (SJVAPCD 2009). Furthermore, the SJVAPCD found that projects that could not reduce their emissions to zero would require preparation of an EIR and adoption of a statement of overriding consideration by the lead agency. Potentially, projects could choose to relocate to a region with a less stringent threshold, so-called “leakage” that would still result in GHG emissions outside the SJVAPCD. Finally, the SJVAPCD noted that CARB concluded that zero thresholds are not mandated because some level of GHG emissions is still consistent with climate stabilization and other regulatory programs will result in GHG reductions. For these reasons, the SJVAPCD did not support a zero threshold. Accordingly, a zero threshold was not selected as an appropriate GHG/climate change threshold for this assessment.

**Non-Zero Quantitative Thresholds** – As indicated previously, the SJVAPCD reviewed numerous quantitative thresholds adopted or proposed by other air districts and organizations, including “mass of GHG emissions generate per unit of activity, GHG emissions per capita per unit basis, and percent reduction compared to Business-as-Usual” (SJVAPCD 2009). While a tiered approach was evaluated, with the final tier incorporating a quantitative threshold, the SJVAPCD concluded that “... without supporting scientific information, establishment of tier trigger levels could be argued to be arbitrary, and district staff does not believe the available science supports establishing a bright-line threshold, above which emissions are significant and below which they are not (SJVAPCD 2009).

More specifically, the SJVAPCD concluded that inadequate evidence exists to support a specific quantitative level (e.g., a number of MT CO<sub>2</sub>e per year that would be emitted due to a project) representing a significant impact. Specifically, the Final Staff Report states:

District staff has reviewed the relevant scientific information and concludes that the existing science is inadequate to support quantification of the extent to which project specific GHG emissions would impact global climatic features such as average air temperature, average annual rainfall, or average annual snowpack. Thus, District staff concludes that it is not feasible to scientifically establish a numerical threshold that supports a determination that GHG emissions from a specific project, of any size, would or would have a significant impact on global climate change. In other words, the District was not able to determine a specific quantitative level of GHG emission increase, above which the project would have a significant impact on the environment,

and below which would have an insignificant impact. District staff further concludes that impacts of project specific emissions on global climatic change are cumulative in nature, and the significance thereof should be examined in that context. This is readily understood when one considers that global climatic change is the result of the sum total of GHG emissions, both man made [sic] and natural that occurred in the past; that is occurring now; and will occur in the future (SJVAPCD 2009).

Accordingly, a bright-line numerical threshold was not selected as an appropriate GHG / climate change threshold for this assessment.

### San Joaquin Council of Governments

SB 375 requires MPOs to prepare an SCS in their RTP. In San Joaquin County, the SJCOG adopted the 2018 RTP/SCS which includes a target of 12% per capita reduction by 2020 and a 16% per capita reduction by 2035 (SJCOG 2018). The 2018 RTP/SCS is a long-range plan for transportation projects within the planning area. The 2018 RTP/SCS emphasizes the need for local initiatives that can reduce the region's GHG emissions that contribute to climate change, an issue that is largely outside the focus of local attainment plans. The 2018 RTP/SCS also emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy.

### City of Stockton Envision 2040 General Plan

Applicable GHG standards in the City's 2040 General Plan are contained within the Safety, and Community Health and Transportation chapters. The Safety and Community Health chapters contains specific goals, policies, and actions for reducing air quality and GHGs within the City. The following goals and policies are relevant to the proposed project.

#### Safety

Goal SAF-4: Clean Air. Improve local air quality.

Policy SAF-4.1. Reduce air impacts from mobile and stationary sources of air pollution.

Policy SAF-4.2. Encourage major employers to participate in a transportation demand management program (TDM) that reduces vehicle trips through approaches such as carpooling, vanpooling, shuttles, car-sharing, bike sharing, end-of-trip facilities like showers and bicycle parking, subscription bus service, transit subsidies, preferential parking, and telecommuting.

#### Community Health

Goal CH-5. Sustainability Leadership.

Policy CH-5.1. Accommodate a changing climate through adaptation, mitigation, and resiliency planning and projects.

Policy CH-5.2. Expand opportunities for recycling, re-use of materials, and waste reduction.

## Transportation

The Transportation chapter is intended to strengthen physical transportation connections within the City and greater region, including road, bicycle, and trail networks. The following goals and policies are applicable to the proposed project.

**Goal TR-3. Sustainable Transportation.** Design transportation infrastructure to help reduce pollution and vehicle travel.

**Policy TR-3.2.** Require new development and transportation projects to reduce travel demand and greenhouse gas emissions, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.

## City of Stockton Climate Action Plan

In August 2014, the City adopted a Climate Action Plan (CAP) in compliance with a Settlement Agreement with the California Attorney General and the Sierra Club related to the City's adopted General Plan 2035 and associated EIR. The CAP "outlines a framework to feasibly reduce community GHG emissions in a manner that is supportive of AB 32 and is consistent with the Settlement Agreement and 2035 General Plan policy" (City of Stockton 2014).

The CAP sets a GHG emission reduction target of 10% below 2005 GHG emission levels by 2020, or approximately 29% below "business as usual" GHG emissions (i.e., 2020 GHG emissions that are unmitigated), which is the level by which the state has set its emission reduction goal. Approximately 83% of the reductions needed to achieve the City's GHG reduction goal are achieved through state-level programs, and 17% are achieved through City-level programs. The largest GHG reductions are identified in the areas of building energy (both energy efficiency and renewable energy), transportation, and waste. It should be noted that the GHG emission inventory on which CAP targets and policies are based did not include heavy industrial sources.

Furthermore, Appendix F of the City's CAP has a Climate Impact Study Process (CISP), which is part of the Development Review Process, that describes best management practices (BMPs) to reduce GHG emissions from construction and operational activities. Development must identify the BMPs or other mitigation that would provide the reduction in GHG emissions (City of Stockton 2014).

## 4.7.4 Impacts and Mitigation Measures

### Methods of Analysis

#### Construction

CalEEMod Version 2022.1.5 was used to estimate potential project-generated GHG emissions during construction. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 4.1, Air Quality, are also applicable for the estimation of construction-related GHG emissions. As such, see Section 4.1., Air Quality for a discussion of construction emissions calculation methodology and assumptions.



## Operation

As with the air quality analysis, emissions from the operational phase of the project were estimated using CalEEMod Version 2022.1.5. Operational year 2042 was assumed consistent with completion of project construction.

## Area Sources

CalEEMod was used to estimate GHG emissions from the project's area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. See Section 4.1, for a discussion of landscaping equipment emissions calculations. For the existing or baseline scenario, default CalEEMod values were applied for landscape maintenance.

## Energy Sources

The estimation of operational energy emissions was based on CalEEMod land use defaults and units or total area (i.e., square footage) of the project's land uses. The energy use (electricity or natural gas usage per square foot per year) from nonresidential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO<sub>2</sub> and other GHGs. The CalEEMod default energy intensity factor (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O mass emissions per kilowatt-hour) for Pacific Gas and Electric (PG&E) was applied, which is based on the value for PG&E's energy mix in 2018 (CAPCOA 2022), which reported a 39% in eligible renewables in its 2018 Power Content Label (CEC 2019). As explained in the Regulatory Section, 4.7.3, SB 100 calls for further development of renewable energy, with a target of 44% by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030. As such, GHG emissions associated with Project electricity demand would continue to decrease over time. Furthermore, on September 13, 2022, the City of Stockton's City Council voted unanimously to join East Bay Community Energy (EBCE), which the City would initiate in 2024 to provide this as an option for customers. EBCE is an example of a Community Choice Aggregation (CCA) program that allows participating local governments to procure power on behalf of their residents, businesses, and municipal accounts from alternative suppliers while still receiving transmission and distribution service from their existing utility provider. CCAs are an attractive option for communities that want more local control over their electricity sources, more green power than is offered by the default utility, and/or lower electricity prices. EBCE aims to provide 100% clean energy by 2030. As of 2020, EBCE's power mix is 54% clean energy (EBCE 2021).

For the existing scenario, default CalEEMod values were updated according to electricity and natural gas consumption estimates provided by the applicant.

## Mobile Sources

All details for criteria air pollutants discussed in Section 4.1, Air Quality are also applicable for the estimation of operational mobile source GHG emissions.

Regulatory measures related to mobile sources include AB 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the NHTSA and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the project's motor vehicles. The effectiveness

of fuel economy improvements was evaluated using the CalEEMod emission factors for motor vehicles in 2042 for the proposed project, which is based on EMFAC2021.

For the existing baseline scenario, year 2022 and values from the transportation assessment for existing were assumed. For the proposed project, year 2042 and project-specific values from the transportation assessment were assumed.

### Helicopters

As described in Chapter 2, Project Description, helicopters would be used for emergency response activities, and associated emissions were calculated using the Federal Office of Civil Aviation emission factors for jet fuel. Emissions from helicopter use were estimated based on the estimated number of landing and takeoff cycles, number of cruising hours per day, and helicopter engine model type. It was assumed that the project would include approximately 10 helicopter trips per month (Pers. Comm. Brewer 2022). Energy-related emissions associated with electricity, natural gas, and diesel fuel were estimated using utility-specific and Federal Office of Civil Aviation emission factors.

### Solid Waste

Land uses, including the proposed project, generate solid waste, and therefore, result in CO<sub>2e</sub> emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were applied for the proposed project. No diversion of solid waste was assumed for the proposed project under; however, this is a conservative assumption as AB 939 had a statewide goal of 50% diversion by 2000, AB 341 had a statewide goal of 75% diversion by 2020, and the state continues to strive to reduce or divert landfill material. For the existing baseline scenario, default CalEEMod values were applied.

### Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the proposed project and the existing baseline scenario requires the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the proposed project under the existing scenario requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using default values in CalEEMod. Default CalEEMod values were applied for water consumption (indoor and outdoor) and wastewater treatment for both the proposed project and the existing baseline scenario.

### Stationary Sources

The central utility plant (CUP) building is currently proposed to include two 10.5-MMBtu/hr natural gas boilers and two 6.7-MMBtu/hr natural gas heaters using a total of 967,901 therms/year. CalEEMod was used to quantify criteria pollutant emissions from the proposed CUP equipment. Furthermore, the proposed project would operate two, 2,000-kilowatt (kW) emergency generators and 52,800 gallons of stored fuel. The emergency generators were assumed to be tested for 1 hour per day and 50 hours per year. CalEEMod was used to estimate emissions from the emergency generators testing and maintenance.

## Thresholds of Significance

A significant impact would occur if development of the proposed project would do any of the following:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases

The CEQA Guidelines Appendix G thresholds for GHGs do not prescribe specific methodologies for performing an assessment, do not establish specific quantitative thresholds, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009). Additional guidance regarding assessment of GHG's is discussed below.

## CEQA Guidelines

With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or performance-based standards" (14 CCR 15064.4[a]). A lead agency may use a "model or methodology" to estimate greenhouse gas emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change" (14 CCR 15064.4[c]). The CEQA Guidelines provide that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment (14 CCR 15064.4[b]):

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

## Governor's Office of Planning and Research Guidance

In 2008, prior to originally promulgating the CEQA Guidelines provisions discussed immediately above in 2010, the Governor's Office of Planning and Research issued a technical advisory entitled, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review. Anticipating the above-quoted language from section 15064.4[a], which emphasizes the discretion lead agencies have in addressing the impacts of GHG emissions, the 2008 Technical Advisory states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant

impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008).

### Other Relevant Background Information

Notably, global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established, generally applicable, quantitative thresholds adopted by an agency with subject matter expertise (like CARB) for assessing whether the GHG emissions of a project, such as the Project, would be considered a cumulatively considerable contribution to global climate change. However, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a project-level under CEQA.

The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009 a). In 2018, the Governor's Office of Planning and Research issued a "Discussion Draft" document called CEQA and Climate Change Advisory." This 2018 draft advisory states that

"Neither the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for performing an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact." (OPR 2018)

Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice."

As described previously, the proposed project is located within the San Joaquin Valley Air Basin under the jurisdiction of the SJVAPCD, which, to date, has not adopted significance criteria or thresholds for project-level analyses.

### Approaches to Determining Significance

In the absence of a numeric threshold adopted by either CARB, the SJVAPCD, or the City of Stockton, a project-specific mass emissions threshold was derived based on the most recent inventories provided by the state and the City in light of the most recent statutory targets for reducing GHG emissions on a statewide level. This approach is appropriate for the proposed project because it applies the state's GHG emission targets to the City's GHG inventory from the 2014 CAP (most recent information available). The statewide GHG reduction goals are established for 2030 in SB 32 (2016) and for 2045 in AB 1279 (2022). SB 32 sets a target of 40% below 1990 levels by 2030. AB 1279 declares state policy to "[a]chieve net zero greenhouse gas emissions as soon as possible, but no later than 2045" and to "[e]nsure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below" 1990 (2020) levels.

The first step in the derivation of the project-specific mass emissions threshold was to identify the percentage reduction that must be achieved statewide for attainment of the 2030 and 2045 GHG reduction goals. CARB’s 2030 GHG emissions limit was estimated by applying the reduction target as identified by SB 32 to the GHG emissions limit identified by AB 32 (i.e., achieve 1990 levels by 2020 or a 431 MT CO<sub>2</sub>e GHG emissions limit). In 2030, the state’s estimated emission target would be approximately 259 MMT CO<sub>2</sub>e.

The second step was to apply a straight-line regression between the 2030 and 2045 estimated emissions reduction targets in order to estimate the statewide percent reduction in 2042, which is the proposed project’s anticipated buildout year. The statewide percent reduction was estimated to be 76%, which is the percentage of GHG emissions which needs to be reduced from the 2020 GHG emissions limit to be in line with the state’s 2045 GHG emissions target.

The third step involves estimating an efficiency metric for 2030, which was derived by using the City’s 2030 GHG emissions inventory and the forecasted service population in 2030. The City’s 2030 GHG emissions was estimated by applying the GHG emissions reduction target identified by SB 32, a 40% GHG emissions reduction, to the City’s 2020 GHG inventory of 2,672,519 MT CO<sub>2</sub>e. The City’s GHG emissions was estimated to be 1,074,672 MT CO<sub>2</sub>e in 2030. Using SJCOG’s employment and population projections for 2030 (i.e., 511,219 service population), the per capita emissions level in 2030 was estimated to be approximately 2.10 MT CO<sub>2</sub>e per year.

The fourth and final step involved applying the statewide percent reduction (i.e., 76% reduction in 2042) to the 2030 efficiency metric (i.e., 2.10 MT CO<sub>2</sub>e/service population/per year). The 2042 efficiency metric was estimated to be 0.50 MT CO<sub>2</sub>e/service population/per year. Therefore, if the net GHG emissions associated with the proposed project meet this threshold, the proposed project would be consistent with state targets and would have a less than cumulatively considerable contribution to climate change. The equation and calculations for the campus-specific mass emission threshold are provided in Table 4.7-4.

**Table 4.7-4. Project Specific Emissions Threshold**

| Equation   | Calculation  |
|--|--|
| CARB’s 2020 GHG emission limit × % reduction to be in line with the 2030 GHG reduction goal = 2030 GHG emissions target          | 431 MMT CO <sub>2</sub> e × 60% = 259 MMT CO <sub>2</sub> e  |
| 1 - (2042 anticipated state GHG inventory ÷ CARB’s 2020 GHG emission limit) = 2042 statewide percent reduction                   | 1 - (103 MMT CO <sub>2</sub> e ÷ 431 MMT CO <sub>2</sub> e) = 76%  |
| 2030 estimated City of Stockton GHG inventory ÷ 2030 estimated service population = 2030 project-specific efficiency threshold   | 1,074,672 MT CO <sub>2</sub> e per year ÷ 511,219 service population = 2.10-MT CO <sub>2</sub> e/ service population/ per year |
| 2030 project-specific efficiency threshold × (1 - 2042 statewide percent reduction) = 2042 project-specific efficiency threshold | 2.10-MT CO <sub>2</sub> e/ service population/ per year × (1 - 76%) = 0.50 MT CO <sub>2</sub> e/ service population/ per year  |
| <b>2042 project-specific efficiency threshold</b>  | <b>0.50 MT CO<sub>2</sub>e/ service population/ per year</b>   |

Source: Appendix C.

Notes: MMT CO<sub>2</sub>e = million metric tons of carbon dioxide equivalent; MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent. Numbers are rounded for table reporting.

While state and regional regulators of energy and transportation systems, along with the state’s Cap and Trade program, are designed to be set at limits to achieve most of the GHG reductions required to achieve the state’s long-term targets, local governments can do their fair share toward meeting the state’s targets by siting and

approving projects that accommodate planned population growth and projects that are GHG-efficient. Independent of local governments’ land use decisions, GHG emissions from the generation of electricity and from vehicle usage will come down over time as more of California’s electricity comes from carbon free sources, as building codes get more stringent, and as electric vehicles replace fossil-fuel powered vehicles. As noted earlier, on September 13, 2022, the City of Stockton’s City Council voted unanimously to join EBCE, a Community Choice Aggregation program that aims to provide 100% clean energy by 2030. The AEP Climate Change Committee recommends that CEQA GHG analyses evaluate project emissions in light of the trajectory of state climate change legislation and assess their “substantial progress” toward achieving long-term reduction targets identified in available plans, legislation, or EOs. Consistent with AEP Climate Change Committee recommendations (2016), GHG impacts are analyzed in terms of whether the project would impede “substantial progress” toward meeting the reduction goal identified by the state such as SB 32 and AB 1279. SB 32 is considered an interim target toward meeting the 2045 state’s goal which was used to derive a threshold for the proposed project’s buildout year. Thus, consistency with SB 32 would be considered contributing substantial progress toward meeting the state’s long-term 2045 goals.

Note that the estimated GHG per capita emissions rate is based on the anticipated City of Stockton GHG emissions inventory and service population (i.e., residents and employees) by 2030. Therefore, the estimated threshold is geographically and jurisdictionally specific to the proposed project. Furthermore, the efficiency-metric threshold was adjusted based on the state’s established emissions reductions needed to achieve the 2045 GHG reduction target.

**Project Impacts**

**Impact 4.7-1      The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

**Construction Emissions**

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, vendor and haul trucks, and worker vehicles. Construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions for comparison with the project-specific emissions threshold of 0.50 MT CO<sub>2</sub>e/service population/per year. Therefore, the determination of significance is addressed in the operational emissions discussion below. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, trucks, and worker vehicles—is included in Appendix C. The estimated project-generated GHG emissions from construction activities are shown in Table 4.7-5.

**Table 4.7-5. Estimated Annual Construction GHG Emissions**

| Year              | CO <sub>2</sub><br>Metric Tons | CH <sub>4</sub> | N <sub>2</sub> O | R    | CO <sub>2</sub> e |
|-------------------|--------------------------------|-----------------|------------------|------|-------------------|
| <b>Phases 1-4</b> |                                |                 |                  |      |                   |
| 2024              | 1,100.00                       | 0.04            | 0.07             | 0.80 | 1,123.00          |
| 2025              | 1,133.00                       | 0.02            | 0.07             | 0.97 | 1,157.00          |
| 2026              | 602.00                         | 0.02            | 0.04             | 0.40 | 614.00            |
| 2027              | 609.00                         | 0.02            | 0.04             | 0.36 | 621.00            |
| 2028              | 621.00                         | 0.02            | 0.03             | 0.29 | 633.00            |



**Table 4.7-5. Estimated Annual Construction GHG Emissions**

| Year                           | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | R     | CO <sub>2</sub> e |
|--------------------------------|-----------------|-----------------|------------------|-------|-------------------|
|                                | Metric Tons     |                 |                  |       |                   |
| 2029                           | 159.00          | <0.01           | <0.01            | <0.01 | 159.00            |
| 2030                           | 92.00           | <0.01           | <0.01            | <0.01 | 92.00             |
| <b>Phase 5</b>                 |                 |                 |                  |       |                   |
| 2040                           | 263.00          | 0.01            | 0.01             | 0.01  | 265.00            |
| 2041                           | 377.00          | 0.01            | 0.01             | 0.01  | 381.00            |
| 2042                           | 24.00           | <0.01           | <0.01            | <0.01 | 24.00             |
| <b>Total</b>                   |                 |                 |                  |       | <b>5,068.80</b>   |
| <b>Amortized over 30 years</b> |                 |                 |                  |       | <b>168.96</b>     |

**Source:** See Appendix C for complete results.

**Notes:** GHG = greenhouse gas; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; R = refrigerants; CO<sub>2</sub>e = carbon dioxide equivalent; <0.01 = reported value is less than 0.01.

As shown in Table 4.7-5, the estimated total GHG emissions from construction of the proposed project would be 5,069 MT CO<sub>2</sub>e. The estimated project-generated construction emissions amortized over 30 years would be approximately 169 MT CO<sub>2</sub>e per year. Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis in the following text.

#### Operational Emissions

Operation of the proposed project would generate GHG emissions through mobile sources (motor vehicle trips to and from the campus); area sources (landscape maintenance equipment); energy use (natural gas and electricity consumed by the proposed project); solid waste disposal; and water supply, treatment, distribution and wastewater treatment, helicopters, and stationary sources (e.g., boilers and emergency generators). CalEEMod was used to calculate the annual GHG emissions based on the operational assumptions described above, under “Methods of Analysis.”

The estimated operational proposed project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, and water usage and wastewater generation are shown in Table 4.7-6.

**Table 4.7-6. Estimated Annual Operational Greenhouse Gas Emissions - Unmitigated**

| Source                      | CO <sub>2</sub>      | CH <sub>4</sub> | N <sub>2</sub> O | R    | CO <sub>2</sub> e |
|-----------------------------|----------------------|-----------------|------------------|------|-------------------|
|                             | Metric Tons per Year |                 |                  |      |                   |
| <b>Existing Scenario</b>    |                      |                 |                  |      |                   |
| Area                        | 1.92                 | <0.01           | <0.01            | —    | 1.98              |
| Energy                      | 303.00               | 0.05            | 0.01             | —    | 306.00            |
| Mobile                      | 769.00               | 0.05            | 0.04             | 1.56 | 784.00            |
| Solid waste                 | 74.00                | 7.40            | 0.00             | —    | 259.00            |
| Water supply and wastewater | 8.03                 | 0.42            | 0.01             | —    | 21.60             |
| Stationary                  | 4,020.00             | 0.08            | 0.05             | —    | 4,037             |
| <b>Total</b>                |                      |                 |                  |      | <b>5,409.58</b>   |

**Table 4.7-6. Estimated Annual Operational Greenhouse Gas Emissions - Unmitigated**

| Source                      | CO <sub>2</sub>      | CH <sub>4</sub> | N <sub>2</sub> O | R  | CO <sub>2</sub> e |
|-----------------------------|----------------------|-----------------|------------------|--|-------------------|
|                             | Metric Tons per Year |                 |                  |  |                   |
| <b>Proposed Project</b>     |                      |                 |                  |  |                   |
| Area                        | 19.2                 | <0.01           | <0.01            | —  | 19.8              |
| Energy                      | 3,854.00             | 0.49            | 0.04             | —  | 3,880.00          |
| Mobile                      | 2,088.00             | 0.09            | 0.11             | 0.36   | 2,123.00          |
| Solid waste                 | 54.6                 | 5.46            | 0.00             | —  | 191.00            |
| Water supply and wastewater | 16.1                 | 0.85            | 0.02             | —  | 43.3              |
| Helicopters                 | 162.28               | 174.55          | 0.01             | —  | 174.70            |
| Stationary                  | 7,514.00             | 0.15            | 0.09             | —  | 7,544.00          |
|                             |                      |                 |                  | Subtotal   | 13,975.80         |
|                             |                      |                 |                  | Construction Emissions (Amortized Over 30 Years)       | 168.96            |
|                             |                      |                 |                  | <b>Total</b>   | <b>14,144.76</b>  |
| <b>Net Change</b>           |                      |                 |                  |  |                   |
|                             |                      |                 |                  | Net Change (Proposed Project – Existing)               | 8,735.18          |
|                             |                      |                 |                  | Project Service Population                             | 365               |
|                             |                      |                 |                  | Annual Emissions per Service Population GHG Efficiency | 23.93             |
|                             |                      |                 |                  | Efficiency Metric Threshold                            | 0.50              |
|                             |                      |                 |                  | Exceeds Threshold?                                     | Yes               |

**Source:** See Appendix C for complete results.

**Notes:** GHG = greenhouse gas; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; R = refrigerants; CO<sub>2</sub>e = carbon dioxide equivalent; negative values are presented in parentheses.

Existing scenario emissions reflects operational year 2022 and proposed project reflect operational year 2042.

Totals may not sum due to rounding.

As shown in Table 4.7-6, estimated annual project-generated GHG emissions under the proposed project would be approximately 13,976 MT CO<sub>2</sub>e per year as a result of proposed project operations. With amortized construction emissions of 169 MT CO<sub>2</sub>e per year, total operational GHG emissions would be approximately 14,145 MT CO<sub>2</sub>e per year. Annual existing baseline scenario GHG emissions is estimated to be approximately 5,410 MT CO<sub>2</sub>e per year, the net change in GHG emissions under the proposed project is estimated to be an increase in 8,735 MT CO<sub>2</sub>e per year. As previously discussed, the project-specific efficiency threshold of 0.50 MT CO<sub>2</sub>e/service population/per year was developed to assess if the proposed project's GHG emissions would result in a significant, cumulatively considerable contribution to climate change. At full project build-out, the Medical Center would include approximately 3,230 employees, including doctors, nurses, and administrative staff; this represents an increase of 365 employees from the current total of 2,865. The proposed project's service population, defined as the number of new employees supported by the proposed project, 365 employees. Based on a service population of 365 employees and estimated emissions presented in Table 4.6-6, the proposed project would result in the per capita emissions of 24 MT CO<sub>2</sub>e/service population/per year the proposed project. Thus, the proposed project's GHG emissions would exceed the project-specific efficiency threshold prior to mitigation impacts would be **potentially significant**.

## Mitigation Measures

State CEQA Guidelines Section 15126.4 requires EIRs to describe feasible measures that can minimize significant adverse impacts. The following mitigation measures have been evaluated for their potential feasibility and, if

adopted at the time of project approval,<sup>5</sup> are incorporated to reduce potentially significant impacts related to air quality during construction of the proposed project.

Implementation of Mitigation Measures 4.7-1 and 4.7-2, as set forth below in Table 4.7-7, would result in the proposed project offsetting approximately 60% of its annual GHG emissions in order to reduce impacts from GHG emissions. As shown in Table 4.7-7, implementation of Mitigation Measures 4.7-1 and MM 4.7-2 would reduce GHG emissions associated with the proposed project. The emission reductions associated with measures listed in Mitigation Measure 4.7-1 (e.g., installation of EV charging stations) has been quantified to the extent feasible. Implementation of mitigation measure Mitigation Measure 4.7-2 would be required to provide one-time funding to offset the proposed project's operational GHG emissions below the efficiency metric threshold. The offset of GHG emissions would reduce the proposed project's impacts associated with GHG emissions to less-than-significant levels. If offsets are located exclusively within the City of Stockton or in unincorporated San Joaquin County, the offsets would also create local co-benefits, a practice favored by CARB. However, because CEQA-compliant offsets, and particularly local offsets, may not be available or may be prohibitively expensive, impacts would remain significant and unavoidable.

**Table 4.7-7. Estimated Annual Operational Greenhouse Gas Emissions - Mitigated**

| Source                      | CO <sub>2</sub>      | CH <sub>4</sub> | N <sub>2</sub> O | R  | CO <sub>2</sub> e |
|-----------------------------|----------------------|-----------------|------------------|--|-------------------|
|                             | Metric Tons per Year |                 |                  |  |                   |
| <b>Existing Scenario</b>    |                      |                 |                  |  |                   |
| Area                        | 1.92                 | <0.01           | <0.01            | —  | 1.98              |
| Energy                      | 303.00               | 0.05            | 0.01             | —  | 306.00            |
| Mobile                      | 769.00               | 0.05            | 0.04             | 1.56   | 784.00            |
| Solid waste                 | 74.00                | 7.40            | 0.00             | —  | 259.00            |
| Water supply and wastewater | 8.03                 | 0.42            | 0.01             | —  | 21.60             |
| Stationary                  | 4,020.00             | 0.08            | 0.05             | —  | 4,037             |
|                             |                      |                 |                  | <b>Total</b>   | <b>5,409.58</b>   |
| <b>Proposed Project</b>     |                      |                 |                  |  |                   |
| Area                        | 19.2                 | <0.01           | <0.01            | —  | 19.8              |
| Energy                      | 3,854.00             | 0.49            | 0.04             | —  | 3,880.00          |
| 2,088.00                    | 0.09                 | 0.11            | 0.36             | 2,123.00   | 2,088.00          |
| Solid waste                 | 54.6                 | 5.46            | 0.00             | —  | 191.00            |
| Water supply and wastewater | 16.1                 | 0.85            | 0.02             | —  | 43.3              |
| Helicopters                 | 162.28               | 174.55          | 0.01             | —  | 174.70            |
| Stationary                  | 7,514.00             | 0.15            | 0.09             | —  | 7,544.00          |
|                             |                      |                 |                  | <b>Subtotal</b>  | <b>13,975.80</b>  |
|                             |                      |                 |                  | <i>Construction Emissions (Amortized Over 30 Years)</i>                    | <i>168.96</i>     |
|                             |                      |                 |                  | On-site Reductions of Operational Emissions (from MM 4.7-1, respectively)  | (40.29)           |
|                             |                      |                 |                  | Off-site Reductions of Operational Emissions (from MM 4.7-2, respectively) | (8,520.00)        |

<sup>5</sup> Under CEQA, agency decisionmakers (here, the City Council) are the ultimate arbiters of the feasibility of both mitigation measures and alternatives. Where their determinations are supported by substantial evidence, such decisionmakers may conclude that proposed mitigation measures are infeasible. (CEQA Guidelines § 15091[a][3]; *San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 17-18.)

**Table 4.7-7. Estimated Annual Operational Greenhouse Gas Emissions - Mitigated**

| Source  | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | R | CO <sub>2</sub> e |                 |
|---|-----------------|-----------------|------------------|---|-------------------|-----------------|
| Metric Tons per Year  |                 |                 |                  |   |                   |                 |
| <b>Existing Scenario</b>                                      |                 |                 |                  |   |                   |                 |
|   |                 |                 |                  |   | <b>Total</b>      | <b>5,584.47</b> |
| <b>Net Change</b>   |                 |                 |                  |   |                   |                 |
| <b>Net Change (Proposed Project – Existing)</b>               |                 |                 |                  |   |                   | <b>174.89</b>   |
| <b>Project Service Population</b>                             |                 |                 |                  |   |                   | <b>365</b>      |
| <b>Annual Emissions per Service Population GHG Efficiency</b> |                 |                 |                  |   |                   | <b>0.48</b>     |
| <b>Efficiency Metric Threshold</b>                            |                 |                 |                  |   |                   | <b>0.50</b>     |
| <b>Exceeds Threshold?</b>                                     |                 |                 |                  |   |                   | <b>No</b>       |

**Source:** See Appendix C for complete results.

**Notes:** GHG = greenhouse gas; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; R = refrigerants; CO<sub>2</sub>e = carbon dioxide equivalent; negative values are presented in parentheses.

Existing scenario emissions reflects operational year 2022 and proposed project reflect operational year 2042.

Totals may not sum due to rounding.

MM 4.7-1 The following GHG emission reduction measures shall be implemented:

- New buildings shall be constructed with either a cool roof or an Energy Star roof.
- The parking structure shall be pre-plumbed and/or structurally engineered for the installation of complete solar energy systems as part of the parking structure and/or over surface parking.
- In the parking structure and surface parking areas, dedicated electric vehicle (EV) parking shall be installed in a minimum of 5% of the parking spaces (or 99 spaces in the parking structure and approximately 4 spaces in the surface lot).
- Long-term bicycle storage facilities such as bicycle lockers, pedestal posts, and rental bicycle lockers shall be provided and facilities included that allow for the installation of conduit to install charging stations for electric bicycles.
- Include the installation of both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to the California Air Resources Board (CARB), San Joaquin Valley Air Pollution Control District (SJVAPCD), and the building manager.
- Run conduit to designated locations for future electric truck charging stations at delivery dock locations.
- Post signs at every truck exit driveway providing directional information to the nearest truck route.
- Include exterior outlets on all buildings to allow the use of electrically-powered landscape equipment and the use of gas-powered landscape maintenance equipment shall be prohibited on site.
- Require the use of energy-efficient lighting LED for all street, parking, and building lighting. This reduces the amount of electricity consumed for outdoor lighting.
- Prepare a campus-wide Transportation Demand Management (TDM) Plan. The TDM Plan shall include a variety of trip reduction strategies such as expanding upon existing alternative transportation programs; establishing an incentives-based commuter program

to encourage employees to carpool and take alternative modes of travel to the hospital; increase bicycle facilities; and prioritize carpool parking, etc.

- Encourage telecommuting and alternative work schedules for those employees for whom remote work is acceptable.
- Maximize the amount of drought tolerant landscaping. Turf shall be limited to high visibility areas. Low groundcover and native grasses shall be used as an alternative to turf. Any turf used shall be warm-season turf or shall have a plant species factor of 0.6 or lower.

#### MM 4.7-2

In order to reduce the remaining greenhouse gas (GHG) emissions to 0.50 metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)/service population/per year, the applicant shall pursue feasible measures that contribute to an off-site GHG emissions reduction program or involve the payment of GHG offset fees. Any GHG offsets or GHG-mitigation credits included within a Greenhouse Gas Reduction Plan must be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code Section 38562, subdivisions (d)(1) and (d)(2), which are defined for purposes of this mitigation measure as follows:

- i. Real—Represent reductions actually achieved (not based on maximum permit levels).
- ii. Additional/surplus—Not already planned or required by regulation or policy (i.e., not double counted).
- iii. Quantifiable—Readily accounted for through process information and other reliable data.
- iv. Enforceable—Acquired through legally binding commitments/agreements.
- v. Validated—Verified through accurate means by a reliable third party.
- vi. Permanent—Will remain as GHG reductions in perpetuity

Such offsets shall be based on protocols consistent with the criteria set forth Section 95972, subdivision (a) of Title 17 of the California Code of Regulations, and shall not include offsets originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by the City of Stockton in consultation with the San Joaquin Valley Air Pollution Control District's (SJVAPCD). Offsets for GHG emissions originating from outside the United States shall not be permitted. Such GHG offsets or GHG mitigation credits must be purchased through one of the following:

- i. a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard;
- ii. any registry approved by CARB to act as a registry under the California Cap and Trade program;
- iii. the California Air Pollution Control Officers Association (CAPCOA) GHG Rx program; or
- iv. any GHG offset or GHG mitigation program adopted the SJVAPCD.

Over the course of project build out and prior to issuance of requested building permits, the project applicant shall submit reports to the Facilities Development Division that identify the carbon offsets that have been obtained to offset the project's operational generated GHG emissions below the 0.50 MT CO<sub>2</sub>e/service population/per year efficiency threshold. Such reports may be submitted on a phase-by-phase basis, with the required offsets for an individual phase being limited to what is necessary for that phase to achieve its proportional share of the emissions reductions needed to achieve the overall efficiency threshold for the project as a whole. The reports shall include: (i) the

applicable protocol(s) associated with the carbon offsets, (ii) the third-party confirmation/verification reports affiliated with the carbon offset projects, (iii) the unique serial numbers assigned by the registry(ies) to the carbon offsets to be retired to ensure that the offsets cannot be further used in any manner, and (iv) the locational attributes of the carbon offsets.

For purposes of this mitigation measure, what is “feasible,” as that word is used in the phrase “feasible measures that contribute to an off-site GHG emissions reduction program or involve the payment of GHG offset fees,” is a function of the technical viability and overall cost of carbon offsets, and, specifically, whether such offsets (i) are reasonably commercially available, (ii) would be prohibitively expensive for the nonprofit applicant in light of the financial challenges of providing health care services, (iii) would materially increase the cost of the health care provided by the applicant, or (iv) would render the overall project or phase of the project economically infeasible within the meaning of CEQA case law such as *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 598-601 [proposal may be infeasible if “the marginal costs ... are so great that a reasonably prudent property owner would not proceed with” the proposal].)

If the applicant contends that some or all of the carbon offsets conditionally required by this measure are infeasible either for the project as a whole or for an individual phase, the applicant shall so inform the City in advance of the due date for the reports described above. The applicant shall state in writing its reasons for concluding that the ostensibly required carbon offsets are infeasible. The City shall relieve the applicant of its ostensible obligation to provide such offsets if the applicant’s conclusions on the issue of feasibility are supported by substantial evidence and conform to the definition of “feasible” set forth above.

**Impact 4.7-2      The proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

#### Project Consistency with the City of Stockton Climate Action Plan

The City’s CAP has a Climate Impact Study Process (CISP), which is part of the Development Review Process, that describes BMPs to reduce GHG emissions from construction and operational activities (see CAP Appendix F). The CISP explains that applicants can use the CISP to identify BMPs that can feasibly be included within their projects and thereby ascertain their progress towards achieving the level of citywide GHG reduction goal sought by the CAP, namely, a 29% reduction compared with unmitigated conditions (reflecting former statewide 2020 goals under AB 32). The CAP itself acknowledges, however, that it is not intended, and likely not possible for, all projects to adhere to all of the BMPs listed within the CAP.

As previously discussed, the City’s CAP is qualified to 2020 and the proposed project would include development that would occur post-2020, which may not be covered in the CAP. Indeed, the CAP is out of date insofar as it does not address post-2020 reductions called for under SB 32 and AB 1279, and its goal of achieving a 29% reduction compared with unmitigated conditions reflected statewide goals under AB 32, which have already been achieved. In addition, state building codes have become far more stringent since the CAP was approved in 2014, and the percentage of electricity generated by renewable electricity has increased substantially.

Even so, the City is aware that CEQA Guidelines section 15064.4(b)(3), provides that, in determining the significance of impacts associated with GHG emissions, lead agencies should consider the extent to which a proposed project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the



reduction or mitigation of greenhouse gas emissions. Because the CAP remains in place, the proposed project was evaluated for consistency with the most relevant of the City’s CAP BMPs, which are included in Table 4.7-8.

**Table 4.7-8. Project Consistency with the City of Stockton Climate Action Plan Best Management Practices**

| Best Management Practice   | Project Compliance   |
|--|--|
| <p><b>BMP - 3: Equipment and Vehicle Idling.</b> Reduce unnecessary idling through the use of auxiliary power units, electric equipment, and strict enforcement of idling limits. Include language in plans and specifications for construction contracts. The maximum recommended idling time is 3 minutes.</p>   | <p><i>Project Complies.</i> The proposed project would comply with the idling times as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations (CCR).</p>  |
| <p><b>BMP - 4: Heavy - Duty VMT Reduction Plan.</b> Include a VMT reduction plan for the project and demonstrate that the plan can minimize overall VMT to the project site, including minimizing the distance for truck haul trips. The plan should require that construction vehicle VMTs be reduced by 15%.</p> | <p><i>Not applicable.</i> A project’s vehicle miles traveled (VMT) at the construction level is not evaluated since all of the VMT criteria are based on the permanent operations of a project. Notably, per City guidelines, project-generated VMT looks at the total number and distance each trip travels divided by the population that generated those trips (i.e., employees, visitors, etc., as appropriate). The most common VMT per capita metrics for this type of project include the following:</p> <ul style="list-style-type: none"> <li>▪ Home-based work (HBW) VMT per employee</li> <li>▪ Total VMT per service population (service population consists of residents plus employees and students)</li> </ul> <p>Also, from a Transportation perspective, VMT impacts are primarily based on passenger-cars and light-duty trucks (i.e., commuting vehicles) not heavy-duty construction vehicles.</p> |

**Table 4.7-8. Project Consistency with the City of Stockton Climate Action Plan Best Management Practices**

| Best Management Practice  | Project Compliance  |
|---|---|
| <p><b>BMP - 6: Equipment Fuel Efficiency through Engine Age Requirements.</b> To the extent possible, maximize fuel efficiency by using engines on off-road construction equipment that are no more than 10 years old or have equivalent carbon dioxide emissions of an engine 10 years old or newer.</p>   | <p><i>Project Complies.</i> The proposed project would comply with CARB regulations and SJVAPVD Rules aimed at requiring fuel efficient off-road construction equipment. Starting in 2014, these requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment.</p>  |
| <p><b>BMP - 7: Construction Equipment.</b> Require the following technical specifications during all grading and construction activities</p> <ul style="list-style-type: none"> <li>▪ Tier 2 or Tier 3 engines shall be used on all equipment.</li> <li>▪ Global positioning systems (GPS) shall be used to guide grading equipment.</li> <li>▪ All diesel-fueled engines used in construction and grading shall have clearly visible tags issued by the on-site designee of the applicant showing that the engine meets these conditions.</li> </ul> | <p><i>Project Complies.</i> The proposed project would comply with CARB regulations and SJVAPVD Rules aimed at requiring fuel efficient off-road construction equipment and will use construction equipment that uses Tier 2 engines.</p>   |
| <p><b>BMP - 9: Heavy - Duty Vehicle Plan.</b> Prepare and implement a heavy-duty vehicle plan to support other construction mitigation measures.</p>  | <p><i>Project Complies.</i> The proposed project would prepare and implement a heavy-duty vehicle plan, if required. The plan would include requirements for any of the following:</p> <ul style="list-style-type: none"> <li>▪ Engine run time meters on construction equipment.</li> <li>▪ Documentation of equipment serial number, age, horsepower, etc.</li> <li>▪ Logging of daily equipment use.</li> </ul>  |
| <p><b>BMP-14: Construction and Demolition Plan.</b> Implement a construction and demolition (C&amp;D) plan that will result in at least 50% diversion of C&amp;D waste through reuse or recycling of non-hazardous construction waste from disposal (including, but not limited to, concrete, lumber, metal, and cardboard)</p>   | <p><i>Project Complies.</i> During construction, the proposed project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act as amended and the CALGreen code. CALGreen requires recycling and/or salvage for reuse of a minimum of 65% of the non-hazardous construction and demolition waste.</p>   |
| <p><b>BMP - 16: Waste Hauling.</b> Require at least 50% of building or construction materials that are not recyclable or re-usable for another project to be hauled to the nearest waste disposal facility or C&amp;D recycling facility rather than transporting such materials farther from the project site, thereby generating increased emissions from waste transportation.</p>   | <p><i>Project Complies.</i> During construction, the proposed project would be required to comply with CALGreen which requires recycling and/or salvage for reuse of a minimum of 65% of the non-hazardous construction and demolition waste. Construction debris would be hauled off site to the closest landfill to the project site such as Clean Planet, Inc. landfill, which is located approximately 2.8 miles southwest. Clean Planet, Inc handles construction debris, concrete and asphalt, wood lumber debris, and green waste.</p> |

**Table 4.7-8. Project Consistency with the City of Stockton Climate Action Plan Best Management Practices**

| Best Management Practice   | Project Compliance   |
|--|--|
| <p><b>BMP-17: Construction-Area Signage.</b> Post signs within the construction area that includes a description of the BMPs in place for GHG reduction during the construction phase.</p>   | <p><i>Project Complies.</i> Clear signage would be provided in the areas of construction describing all implemented BMPs in place for GHG reduction during the construction phase.</p>   |
| <p><b>BMP - 22: Pedestrian Network.</b> Provide a pedestrian access network that internally links all uses and connects to existing or planned external streets and pedestrian facilities within and off the project site.</p>   | <p><i>Project Complies.</i> The proposed project would include wayfinding signage internal to the campus to guide visitors and patients to all uses. The project also includes construction of a new sidewalk added to improve pedestrian circulation between E. Maple Street and E. Harding Way. The proposed project would also include pedestrian signal enhancements to improve pedestrian safety from off-site leased facilities at the corner of E. Harding and Cemetery Lane.</p>   |
| <p><b>BMP-30: Orientation Toward Alternative Transportation.</b> Orient the proposed project toward existing and/or proposed public transit, bicycle, or pedestrian corridors. This measure includes minimizing the setback distance between the project and adjacent uses (e.g., buildings, sidewalks), as well as facing buildings toward the street frontage.</p> | <p><i>Project Complies.</i> The proposed project would include construction of a new sidewalk to improve pedestrian circulation between E. Maple Street and E. Harding Way. The proposed project would also include pedestrian signal enhancements to improve pedestrian safety from off-site leased facilities at the corner of E. Harding and Cemetery Lane. Furthermore, bicycle parking would be accommodated by up to 40 spaces, with a more precise number evolving as the approval process continues. Similarly, EV spaces are contemplated, although a precise number is not available at this time. Further, the San Joaquin Regional Transit District (RTD) is the primary regional transit provider in San Joaquin County. The RTD provides three routes which operate along N. California Street in the vicinity of the project site. Bus stops near the Medical Center campus are located along N. California Street near its intersections with Walnut Street, E. Wyandotte Street, and Sonoma Avenue on both sides of the street. San Joaquin RTD also has two types of Dial-A-Ride services including one for the general public and one for passengers with Americans with Disabilities Act (ADA) certification. The general public service provides curb-to-curb service in areas not being served by RTD routes or other public transportation options.</p> |
| <p><b>BMP-39: Exceed Title 24.</b> Exceed the current Title 24 Standards by 15% in all new residential and commercial developments.</p>  | <p><i>Project Complies.</i> The proposed project would comply with the current Title 24 Building Energy Efficiency Standards at the time of building permit, which at a minimum would be the 2022 Title 24 standards. Notably, the City’s CAP was developed in accordance with the 2013 Standards, which were much less stringent than current standards. Thus, the proposed project would implement energy efficiency standards</p>   |

**Table 4.7-8. Project Consistency with the City of Stockton Climate Action Plan Best Management Practices**

| Best Management Practice   | Project Compliance  |
|--|---|
|  | <p>adopted since approval of the City’s CAP. Specifically, changes to the Title 24 Standards that would be applicable to the proposed project would be due to lighting upgrades, installation of PV systems, and support for EV charging. The proposed project would also conduct an energy efficiency audit and implement efficiency measures where feasible.</p>  |
| <p><b>BMP-45: Lighting Standards.</b> Require development utilize energy-efficient lighting (e.g., light-emitting-diode [LED] bulbs, Energy Star–certified lighting) in at least 50% of outdoor lighting fixtures.</p>                               | <p><i>Project Complies.</i> The proposed project would comply with the current Title 20 standards at the time of building permit. Title 20 defines the minimum efficacy of light bulbs in lumens per watt (LPW). This measures the rate at which a light fixture is able to convert power (watts) into light (lumens). All general service lamps must have an efficacy of 45 LPW, while state-regulated small diameter directional lamps and state-regulated LED lamps must be at least 80 LPW. The proposed project would also conduct an energy efficiency audit and implement efficiency measures where feasible. Furthermore, the proposed project would convert interior and exterior lighting with LED technology with dimmable controls improving patient satisfaction scores and would convert surgical lights to LED technology improving physician satisfaction and variability of operating room temperatures.</p>   |
| <p><b>BMP-47: On-site Renewable Energy.</b> Provide on-site renewable or carbon-neutral energy systems in both residential and commercial developments. At least 12.5% of total energy costs must be supplied by the renewable energy system(s).</p> | <p><i>Project Complies.</i> The proposed project would implement renewable energy sources including photovoltaic, solar hot water, cogeneration, fuel cells, geothermal, and wind where economically viable through the use of Power Purchase Agreements and internal funding. It should be noted that businesses within the City of Stockton, including the project, receive electricity from Pacific Gas and Electric Company (PG&amp;E). Notably, on September 13, 2022, the City of Stockton’s City Council voted unanimously to join East Bay Community Energy (EBCE), which would initiate in 2024 and would provide 100% carbon-free electricity to all customers by 2030. In 2019, 35% of PG&amp;E’s power came from eligible renewable energy sources, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources (CPUC 2021). Therefore, PG&amp;E exceeded the state’s Renewables Portfolio Standard (RPS) goal of 33% renewable energy delivered by 2020.</p> |
| <p><b>BMP-48: Roofing Materials.</b> Require light-colored roofing of materials exceeding the reflectivity requirements of Title 24 (material will have an initial</p>   | <p><i>Project Complies.</i> The proposed project would meet CALGreen requirements. The 2022 CALGreen standards are the current applicable standards for the proposed project. As previously, discussed, the City’s</p>  |

**Table 4.7-8. Project Consistency with the City of Stockton Climate Action Plan Best Management Practices**

| Best Management Practice  | Project Compliance   |
|---|--|
| thermal emittance greater than or equal to 0.75 when tested in accordance to Title 24 protocols).   | CAP was developed in accordance with the 2013 Standards, which were much less stringent than current standards. Thus, the proposed project would implement energy efficiency standards adopted since approval of the City's CAP.   |
| <b>BMP-50: Low-Flow Fixtures.</b> Install low-flow fixtures (e.g., toilets, urinals, showerheads, and faucets) in all residential and non- residential development in place of conventional fixtures.   | <i>Project Complies.</i> The proposed project would meet current code and local agency requirements. Consistent with CALGreen, project buildings would be designed and constructed to incorporate water conservation features, including low-flow fixture requirements related to water closets, urinals, showerheads, faucets, and fountains.   |
| <b>BMP-51: Water-Efficient Landscapes.</b> Design new residential, commercial, and industrial development to include water-efficient landscapes. For example, reduce lawn sizes, plant vegetation with minimal water needs, choose vegetation appropriate to the climate, and choose complimentary plants that have similar water needs or can provide each other with shade and water. | <i>Project Complies.</i> The proposed project would comply with the City's Municipal Code, including drought tolerant/native planting, hydro-zoning, efficient irrigation, and smart irrigation controllers.   |
| <b>BMP-54 Native Landscaping.</b> Plant native and/or drought-resistant vegetation in all residential and non-residential landscapes.   | <i>Project Complies.</i> The proposed project would comply with the City's Municipal Code, including drought tolerant/native planting, hydro-zoning, efficient irrigation, and smart irrigation controllers.   |
| <b>BMP-56: Institute Recycling Services.</b> Reduce the amount of waste sent to landfills by implementing a recycling service for the project. Require 75% of all recyclable material generated by the project to be recycled instead of landfilled (recycling goals can also be specified in terms of total waste, such as recycle 30% of total waste).                                | <i>Project Complies.</i> During operation, the proposed project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act as amended and the CALGreen code. Furthermore, AB 341 had a statewide goal of 75% diversion by 2020, and the state continues to strive to reduce or divert landfill material. |
| <b>BMP-57: Institute Composting Services.</b> Reduce the amount of waste sent to landfills by implementing a composting service for the project. Require 75% of all compostable material generated by the project to be composted instead of landfilled (composting goals can also be specified in terms of total waste, such as compost 15% of total waste).                           | <i>Project Complies.</i> During operation, the proposed project would comply with all local and state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act as amended and the CALGreen code. Specifically, SB 1383 went into effect January 1, 2022, which requires organic waste to be diverted from landfills.               |

Source: City of Stockton 2014.

As demonstrated in Table 4.7-8, the proposed project would generally comply with the applicable BMPs included in the City's CAP. The proposed project, however, would not exceed Title 24 requirements as they exist as of January 2023. Notably, though, Title 24 as it read in 2014 when the CAP was adopted was considerably less stringent than

it is today. Considerable progress towards energy efficiency and reliance on renewable energy has been made in code updates in recent years. Thus, compliance with Title 24 as it will exist when construction of the proposed project commences will result in substantially more GHG savings than would have resulted from compliance with the versions of Title 24 in place in 2014 when the CAP was approved. One of the goals of the 2022 version of Title 24 is for all new commercial construction, and 50% of commercial buildings retrofits to achieve Net Zero Energy Consumption by 2030. As stated in a document entitled, *Overview of 2022 Title 13, Part 6 Changes* prepared by Schnackel Engineers (SE April 2012), “[t]o achieve incremental movement toward this goal, changes in the 2022 code are numerous, and aggressive.”

### Project Potential to Conflict with the 2018 Regional Transportation Plan/Sustainable Communities Strategy

SJCOG’s 2018 RTP/SCS is a regional growth-management strategy that focuses on reducing GHG emissions as it relates to transportation, pursuant to SB 375. The 2018 RTP/SCS incorporates local land use projections and circulation networks in city and county general plans and is comprised of 35 strategies across the elements of housing, the economy, transportation and the environment which are public policies or set of investments that can be implemented within the County.

The proposed project would support the overarching intent of the 2018 RTP/SCS through reducing GHG emissions within the City by including transportation/land use related GHG reduction strategies that either reduce VMT (e.g., supporting alternative modes of transportation including bicycles and transit) or reduce emissions associated with vehicle travel on the technology side (e.g., electrification of vehicles by providing EV chargers). In addition, the proposed project would comply with regulations such as the SJVAPCD’s Rule 9410, Employer Based Trip Reduction requirements and the City’s clean-air vehicle parking regulations. Therefore, the proposed project would support and not conflict with applicable goals and strategies set forth in the 2018 RTP/SCS.

### Project Potential to Conflict with CARB’s Scoping Plan

The Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017), with the 2022 Scoping Plan released in 2022), provides a framework for actions to reduce California’s GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects or cities/counties (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions), nor is it intended to be used for project-level evaluations.<sup>6</sup> Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions and new regulations adopted by the state agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that would affect a local jurisdiction’s emissions inventory from the top down.

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<sup>6</sup> The Final Statement of Reasons for the amendments to the State CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that “[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan” (CNRA 2009).



The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 4.7-9 highlights measures that have been, or will be, developed under the Scoping Plan and presents the project's consistency with Scoping Plan measures. The proposed project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law and to the extent that they are applicable to the proposed project.

**Table 4.7-9. Project Consistency with 2008 Scoping Plan GHG Emission Reduction Strategies**

| Scoping Plan Measure  | Measure Number | Proposed Project Potential to Conflict  |
|---|----------------|---|
| <b>Transportation Sector</b>  |                |   |
| Advanced Clean Cars   | T-1            | <i>No conflict.</i> The proposed project's employees and visitors would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase. Furthermore, there is no regulation adopted by CARB which requires employees of the proposed project to purchase a vehicle.   |
| Low Carbon Fuel Standard  | T-2            | <i>Not applicable.</i> This is a statewide measure that cannot be implemented by a project applicant or lead agency. Nonetheless, this standard would be applicable to the fuel used by vehicles that would access the proposed project.  |
| Regional Transportation-Related GHG Targets   | T-3            | <i>Not applicable.</i> The proposed project is not related to developing GHG emission reduction targets. To meet the goals of SB 375, the 2018 RTP/SCS, is applicable to the proposed project. As demonstrated in Section 4.11, Transportation and Circulation, the home-based work (HBW) vehicle miles traveled (VMT) per employee with the project would not exceed the City's VMT threshold. The proposed project would also not preclude the implementation of this strategy. |
| Advanced Clean Transit  | N/A            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Last-Mile Delivery  | N/A            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Reduction in VMT  | N/A            | <i>No conflict.</i> As previously, discussed, the project's VMT would not exceed the City's VMT threshold. The proposed project is an urban infill project located within a large population center that serves an existing demand for health care services. When compared with new development projects sited on previously undeveloped land and away from population centers, infill projects are generally expected to involve fewer VMT during operation.                     |
| Vehicle Efficiency Measures<br>1. Tire Pressure<br>2. Fuel Efficiency Tire Program<br>3. Low-Friction Oil | T-4            | <i>No conflict.</i> These vehicle efficiency standards would be applicable to the light-duty vehicles that would access the campus. It is assumed motor vehicles driven by the proposed project's employees and visitors would maintain proper tire pressure when their vehicles are  |

**Table 4.7-9. Project Consistency with 2008 Scoping Plan GHG Emission Reduction Strategies**

| Scoping Plan Measure   | Measure Number | Proposed Project Potential to Conflict  |
|--|----------------|---|
| 4. Solar-Reflective Automotive Paint and Window Glazing  |                | serviced. The project's visitors would replace tires that are in compliance with CARB vehicle standards in effect at the time of vehicle purchase. Furthermore, there is no specific CARB requirement that employees replace tires. Motor vehicles driven by project employees and visitors would use low-friction oils when their vehicles are serviced. Project employees and visitors would purchase vehicles that are in compliance with CARB vehicle standards in effect at the time of vehicle purchase. In addition, the proposed project would not prevent CARB from implementing this measure. |
| Ship Electrification at Ports (Shore Power)  | T-5            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Goods Movement Efficiency Measures <ol style="list-style-type: none"> <li>1. Port Drayage Trucks</li> <li>2. Transport Refrigeration Units Cold Storage Prohibition</li> <li>3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification</li> <li>4. Goods Movement Systemwide Efficiency Improvements</li> <li>5. Commercial Harbor Craft Maintenance and Design Efficiency</li> <li>6. Clean Ships</li> <li>7. Vessel Speed Reduction</li> </ol> | T-6            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Heavy-Duty Vehicle GHG Emission Reduction <ul style="list-style-type: none"> <li>▪ Tractor-Trailer GHG Regulation</li> <li>▪ Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)</li> </ul>  | T-7            | <i>No conflict.</i> The proposed project is not anticipated to include substantial heavy-duty vehicles, with the exception of during construction activities. It is assumed any heavy-duty vehicles accessing the project site would be required to comply with CARB GHG reduction measures.  |
| Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Proposed Project  | T-8            | <i>No conflict.</i> While the proposed project is not anticipated to include substantial heavy-duty vehicles, and medium- and heavy-duty vehicles (e.g., delivery trucks) accessing the project site could take advantage of the vehicle hybridization action, which would reduce GHG emissions through increased fuel efficiency. In addition, the proposed project would not prevent CARB from implementing this measure.   |
| Medium and Heavy-Duty GHG Phase 2  | N/A            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure   |
| High-Speed Rail  | T-9            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |

**Table 4.7-9. Project Consistency with 2008 Scoping Plan GHG Emission Reduction Strategies**

| Scoping Plan Measure   | Measure Number | Proposed Project Potential to Conflict   |
|--|----------------|--|
| <b>Electricity and Natural Gas Sector</b>  |                |  |
| Energy Efficiency Measures (Electricity)   | E-1            | <i>No conflict.</i> The proposed project would comply with the current Title 24 Building Energy Efficiency Standards in effect at the time of building permit(s), which at a minimum would be the 2022 Title 24 standards.   |
| Energy Efficiency (Natural Gas)  | CR-1           | <i>No conflict.</i> The proposed project would comply with the current Title 24 Building Energy Efficiency Standards at the time of building permit(s).  |
| Solar Water Heating (California Solar Initiative Thermal Program)  | CR-2           | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure  |
| Combined Heat and Power  | E-2            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| Renewables Portfolio Standard (33% by 2020)  | E-3            | <i>No conflict.</i> The electricity used by the proposed project would benefit from reduced GHG emissions resulting from increased use of renewable energy sources. In 2019, 35% of Pacific Gas and Electric's (PG&E's) power came from eligible renewable energy sources, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources (CPUC 2021). Notably, on September 13, 2022, the City of Stockton's City Council voted unanimously to join East Bay Community Energy (EBCE) which would initiate in 2024. In addition, the proposed project would implement renewable energy sources where economically viable through the use of Power Purchase Agreements and internal funding. |
| Renewables Portfolio Standard (50% by 2050)  | N/A            | <i>No conflict.</i> The electricity used by the proposed project would benefit from reduced GHG emissions resulting from increased use of renewable energy sources. In addition, the proposed project would implement renewable energy sources where economically viable through the use of Power Purchase Agreements and internal funding.  |
| SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs | E-4            | <i>No conflict.</i> The proposed project would comply with the current Title 24 Building Energy Efficiency Standards at the time of building permit(s).  |
| <b>Water Sector</b>  |                |  |
| Water Use Efficiency   | W-1            | <i>No conflict.</i> The proposed project would comply with the City's Municipal Code, including drought tolerant/native planting, hydro-zoning, efficient irrigation, and smart irrigation controllers. Consistent with CALGreen, project buildings would be designed and constructed to incorporate water conservation features, including requirements related to water closets, urinals, showerheads, faucets, and fountains. In addition, the  |

**Table 4.7-9. Project Consistency with 2008 Scoping Plan GHG Emission Reduction Strategies**

| Scoping Plan Measure   | Measure Number | Proposed Project Potential to Conflict   |
|--|----------------|--|
|  |                | proposed project would not prevent CARB from implementing this measure.  |
| Water Recycling  | W-2            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure  |
| Water System Energy Efficiency   | W-3            | <i>Not applicable.</i> This is applicable for the transmission and treatment of water, but it is not applicable for the proposed project.  |
| Reuse Urban Runoff   | W-4            | <i>Not applicable.</i> The proposed project would incorporate permeable surfaces within landscaped portions of the project site to facilitate natural filtration or water runoff.  |
| Renewable Energy Production  | W-5            | <i>Not applicable.</i> Applicable for wastewater treatment systems. In addition, the proposed project would not prevent CARB from implementing this measure.   |
| <b>Green Buildings</b>   |                |  |
| State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)      | GB-1           | <i>Not applicable.</i> This strategy applies to state buildings and is not applicable to the proposed project  |
| Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)                      | GB-1           | <p><i>No conflict.</i> The proposed project's buildings would meet green building standards that are in effect at the time of design and construction. The proposed project would include the following sustainability goals:</p> <ul style="list-style-type: none"> <li>▪ Convert interior / exterior lighting with LED technology with dimmable controls improving patient satisfaction scores.</li> <li>▪ Convert surgical lights to LED technology improving physician satisfaction and variability of operating room temperatures.</li> <li>▪ Implement retro – commissioning programs across the system aimed at improving energy use through more effective operations.</li> <li>▪ Replace aging equipment such as chillers, boilers, air handler units, medical gas systems with more efficient equipment.</li> <li>▪ Replace roofs and windows to reduce heat gain.</li> <li>▪ Installation of building automation systems and other smart controllers to manage energy consumption and improve building comfort.</li> <li>▪ Implement renewable energy sources including photovoltaic, solar hot water, cogeneration, fuel cells, geothermal, and wind where economically viable through the use of Power Purchase Agreements and internal funding.</li> </ul> |
| Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings) | GB-1           | <i>No conflict.</i> The proposed project's buildings would meet CALGreen building standards that are in effect at the time of design and construction.   |

**Table 4.7-9. Project Consistency with 2008 Scoping Plan GHG Emission Reduction Strategies**

| Scoping Plan Measure  | Measure Number | Proposed Project Potential to Conflict  |
|---|----------------|---|
| Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)  | GB-1           | <i>No conflict.</i> This is applicable for existing buildings only. For proposed project components that would be retrofitted, the buildings would meet current applicable building standards at the time of design and construction including the Title 24 Building Energy Efficiency Standards, CALGreen requirements.  |
| <b>Industry Sector</b>  |                |   |
| Energy Efficiency and Co-Benefits Audits for Large Industrial Sources   | I-1            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Oil and Gas Extraction GHG Emission Reduction   | I-2            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Reduce GHG Emissions by 20% in Oil Refinery Sector  | N/A            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| GHG Emissions Reduction from Natural Gas Transmission and Distribution  | I-3            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Refinery Flare Recovery Process Improvements  | I-4            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Work with the Local Air Districts to Evaluate Amendments to Their Existing Leak Detection and Repair Rules for Industrial Facilities to Include Methane Leaks | I-5            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| <b>Recycling and Waste Management Sector</b>  |                |   |
| Landfill Methane Control Measure  | RW-1           | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure   |
| Increasing the Efficiency of Landfill Methane Capture   | RW-2           | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure   |
| Mandatory Commercial Recycling  | RW-3           | <i>No conflict.</i> During both construction and operation, the proposed project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act as amended and the CALGreen building code. During construction, CALGreen requires recycling and/or salvage for reuse of a minimum of 65% of the non-hazardous construction and demolition waste, and during operation, CALGreen requires serving the entire building with readily accessible areas that are identified for the depositing, storage, and collection of non-hazardous materials for recycling to encourage recycling. |
| Increase Production and Markets for Compost and Other Organics  | RW-3           | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |
| Anaerobic/Aerobic Digestion   | RW-3           | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.  |

**Table 4.7-9. Project Consistency with 2008 Scoping Plan GHG Emission Reduction Strategies**

| Scoping Plan Measure   | Measure Number | Proposed Project Potential to Conflict   |
|--|----------------|--|
| Extended Producer Responsibility   | RW-3           | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| Environmentally Preferable Purchasing  | RW-3           | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| <b>Forests Sector</b>  |                |  |
| Sustainable Forest Target  | F-1            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| <b>High GWP Gases Sector</b>   |                |  |
| Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing       | H-1            | <i>Not applicable.</i> This measure does not apply to the project. The project would not inhibit CARB from implementing this Scoping Plan Measure.                   |
| SF <sub>6</sub> Limits in Non-Utility and Non-Semiconductor Applications   | H-2            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing  | H-3            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| Limit High GWP Use in Consumer Products  | H-4            | <i>No conflict.</i> The proposed project would use consumer products that would comply with the regulations that are in effect at the time of manufacture.           |
| Air Conditioning Refrigerant Leak Test During Vehicle Smog Check   | H-5            | <i>No conflict.</i> Motor vehicles driven by the proposed project's employees and visitors would comply with the leak test requirements during required smog checks. |
| Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program              | H-6            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration | H-6            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| SF <sub>6</sub> Leak Reduction Gas Insulated Switchgear  | H-6            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| 40% Reduction in Methane and Hydrofluorocarbon (HFC) Emissions   | N/A            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| 50% Reduction in Black Carbon Emissions  | N/A            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |
| <b>Agriculture Sector</b>  |                |  |
| Methane Capture at Large Dairies   | A-1            | <i>Not applicable.</i> The proposed project would not prevent CARB from implementing this measure.   |

**Notes:** GHG = greenhouse gas; CARB = California Air Resources Board; VMT = vehicle miles traveled; SB = Senate Bill; N/A = not applicable; SF<sub>6</sub> = sulfur hexafluoride.

Based on the analysis in Table 4.7-9, the proposed project would not conflict with the applicable strategies and measures in CARB's 2008 Scoping Plan.



The 2017 Scoping Plan Update reflects the state’s 2030 target of a 40% reduction below 1990 levels codified by SB 32. Table 4.7-10 evaluates the proposed project’s potential to conflict with the 2017 Scoping Plan recommended actions.

**Table 4.7-10. Project Consistency with 2017 Scoping Plan Climate Change Policies and Measures**

| Recommend Action Summary  | Lead Agencies   | Proposed Project Potential to Conflict  |
|---|---|---|
| Implement SB 350 by 2030 <ul style="list-style-type: none"> <li>▪ Increase Renewable Portfolio Standard</li> <li>▪ Establish annual targets for statewide energy efficiency</li> <li>▪ Reduce GHG emissions in the electricity sector</li> </ul>  | CPUC, CEC, CARB   | <i>Not applicable.</i> This action is directed towards policymakers and would not be directly applicable to the project. Nonetheless, the proposed project would improve energy efficiency and reduce electricity-related GHG emissions by providing renewable energy sources where economically viable through the use of Power Purchase Agreements and internal funding, and when replacing older buildings and systems with newer, more efficient buildings and systems. |
| Implement Mobile Source Strategy (Cleaner Technology and Fuels) <ul style="list-style-type: none"> <li>▪ Increase zero emission and plug-in hybrid electric vehicles</li> <li>▪ Increase GHG stringency on light-duty vehicles beyond Advanced Clean Cars</li> <li>▪ Medium- and heavy-duty GHG Phase 2</li> <li>▪ Innovative Clean Transit</li> <li>▪ Last Mile Delivery</li> <li>▪ Further reduce VMT through SB 375 and regional Sustainable Communities Strategy</li> </ul> | CARB, CalSTA, SGC, Caltrans, CEC, OPR, Local agencies       | <i>No conflict.</i> The proposed project includes EV charging stations in all parking areas that would support state goals of increasing zero-emission vehicles.  |
| Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets)   | CARB  | <i>Not applicable.</i> This action is directed towards policymakers and would not be directly applicable to the proposed project.   |
| Adjust performance measures used to select and design transportation facilities by 2019   | CalSTA and SGC, OPR, CARB, GoBiz, IBank, DOF, CTC, Caltrans | <i>Not applicable.</i> The action is directed towards CARB and Caltrans and the proposed project would not impede implementation.   |
| Develop pricing policies to support low-GHG transportation (e.g., low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts) by 2019   | CalSTA, Caltrans, CTC, OPR/SGC, CARB                        | <i>Not applicable.</i> This action is directed towards policymakers and would not be directly applicable to the proposed project. While not a pricing policy, the proposed project would provide EV charging and support for non-vehicular travel modes such as bicycle and transit.  |
| Implement California Sustainable Freight Action Plan  | CalSTA, CalEPA, CNRA, CARB,                                 | <i>Not applicable.</i> The Sustainable Freight Action Plan provides a recommendation on a high-level vision and broad direction to the Governor to consider for state   |

**Table 4.7-10. Project Consistency with 2017 Scoping Plan Climate Change Policies and Measures**

| Recommend Action Summary   | Lead Agencies                                      | Proposed Project Potential to Conflict  |
|--|--|---|
|  | Caltrans, CEC, GoBiz                               | agencies to use when developing specific investments, policies, and programs related to the freight transport system that serves our state's transportation, environmental, and economic interests.   |
| Adopt a Low Carbon Fuel Standard with a carbon intensity reduction of 18%  | CARB   | <i>Not applicable.</i> This action is directed towards CARB and would not be directly applicable to the proposed project. However, emissions associated with project vehicle travel would benefit from reductions associated with the Low Carbon Fuel Standard.   |
| Implement the Short-Lived Climate Pollutant Strategy by 2030   | CARB, CalRecycle, CDFA, SWRCB, Local air districts | <i>No conflict.</i> The proposed project would be required to comply with the state's Short-Lived Climate Pollutant Strategy to the extent it is applicable.  |
| Develop regulations and programs to support organic waste landfill reduction goals in the Short-Lived Climate Pollutant Strategy and SB 1383 by 2019 | CARB, CalRecycle, CDFA, SWRCB, Local air districts | <i>Not applicable.</i> The proposed project would not prevent implementation of this measure.   |
| Implement the post-2020 Cap-and-Trade Program with declining annual caps   | CARB   | <i>Not applicable.</i> The proposed project is not subject to the California Cap-and-Trade Program.   |
| Develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink by 2018                       | CNRA and departments within, CDFA, CalEPA, CARB    | <i>Not applicable.</i> This action is not within the purview of this proposed project. In addition, the proposed project involves redevelopment of an existing medical center campus which is within a developed area and implementation of project would not result in land use conversion that would reduce carbon storage. |
| Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018   | CARB   | <i>No conflict.</i> The proposed project would not prevent CARB from implementing this measure.   |
| Implement Forest Carbon Plan   | CNRA, CAL FIRE, CalEPA and departments within      | <i>Not applicable.</i> This action is not within the purview of the proposed project. In addition, the proposed project includes redevelopment of an existing developed urban area and would not affect forested areas.   |
| Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.   | State Agencies and Local Agencies                  | <i>No conflict.</i> The proposed project would not prevent implementation of this measure.  |

**Source:** CARB 2017.

**Notes:** CalEPA = California Environmental Protection Agency; CAL FIRE = California Department of Forestry and Fire Protection; CalRecycle = California Department of Resources Recycling and Recovery; CalSTA = California State Transportation Agency; CalTrans = California Department of Transportation; CARB = California Air Resources Board; CDFA = California Department of Food and Agriculture; CEC = California Energy Commission; CNRA = California Natural Resources Agency; CPUC = California Public Utilities Commission; CTC = California Transportation Commission; DOF = Department of Finance; GHG = greenhouse gas; GoBiz = Governor's Office of Business and Economic Development; IBank = California Infrastructure Economic Development Bank; OPR = Governor's Office of Planning and Research; SB = Senate Bill; SGC = Strategic Growth Council;.

Based on the analysis in Table 4.7-10, the proposed project would not conflict with the applicable climate change policies and measures in the 2017 Scoping Plan.

The 2022 Scoping Plan reflects the 2030 target of a 40% reduction below 1990 levels codified by SB 32, and the 2045 target of carbon neutrality established by EO B-55-18. Appendix D, Local Actions, to the Draft Scoping Plan Update recommends potential ways for determining whether a project would be in alignment with State climate goals. Appendix D “strongly recommends” that local governments adopt a local CAP that complies with CEQA requirements. Consistency with a locally adopted CAP would be evidence of consistency with State-wide goals to reduce GHG emissions. Table 4.7-8 contains the analysis of the project’s consistency with applicable BMPs in the City’s CAP, concluding that the project would be consistent. The adoption by the City of a new or updated CAP is beyond the scope of the proposed project.

The proposed project is required to adhere to all applicable programs and regulations identified by the Scoping Plan and implemented by state, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32 and SB 32, and in the future per AB 1279. The proposed project would also be required to meet the CALGreen and Building Energy Efficiency Standards in effect at the time when applying for building permits. Furthermore, compliance with the City’s 2014 CAP and General Plan, which includes goals, policies, and programs that would help reduce GHG emissions and therefore, help achieve GHG reduction goals. As demonstrated in Section 4.11, Transportation and Circulation, the proposed project home-based work (HBW) VMT per employee of 5.95 is less than the threshold of 15% below jurisdictional regional average of 11.61 HBW VMT, which would not exceed the City’s VMT threshold. The reduction in the proposed project’s VMT would help reduce GHG emissions generated by the proposed project. This is due to the proposed project being an urban infill project located within a large population center that serves an existing demand for health care services. When compared with new development projects sited on previously undeveloped land and away from population centers, infill projects are generally expected to involve fewer VMT during operation. Therefore, implementation of the proposed project would not obstruct implementation of the CARB Scoping Plan.

### Project Potential to Conflict with Senate Bill 32, Executive Order S-3-05, and Assembly Bill 1279

EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that “California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32” (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014):

“This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures,

including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.”

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, EO B-30-15, and EO S-3-05. This is confirmed in the 2017 Scoping Plan, which states the following (CARB 2017):

“The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.”

The 2022 Scoping Plan builds upon the prior plans, and both assesses progress towards achieving the State’s 2030 emissions reduction goal and draws on a decade and a half of proven regulations, incentives, and carbon pricing policies alongside new approaches to outline a balanced and aggressive course of effective actions to achieve carbon neutrality by 2045 or sooner. The 2022 Scoping Plan lays out a Proposed Scenario which will provide a path not just to carbon neutrality by 2045, but also to the state’s 2030 GHG emissions reduction target. The modeling indicates that, if the plan described in the Proposed Scenario described below is fully implemented, and done so on schedule, the state will be on track to reduce its emissions to 260 MMT CO<sub>2</sub>e by 2030 (CARB 2022b). The Proposed Scenario includes the following:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40% below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 or earlier.
- Focuses on strategies for severing California’s dependency on petroleum in order to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth.
- Integrates equity and protection of California’s most impacted communities as a driving principle throughout the document with a focus on considerations such as affordability, air quality and health benefits from a dramatic reduction in petroleum combustion.
- Incorporates the contribution of natural and working lands (NWLs) to the state’s greenhouse gas emissions, as well as their role in achieving carbon neutrality.
- Reduces emissions from the industrial, energy, and transportation sectors by 80% below 1990 levels by 2050 in accordance with EO.
- Relies on the most up-to-date science and emphasizes the need to deploy all viable tools to address the crisis that climate change presents, including carbon capture and sequestration as well as direct air capture.

The proposed project would not impede the attainment of the GHG reduction goals for 2030 or 2045 identified in SB 32 and AB 1279, respectively. As discussed above, the proposed project would not conflict with the City’s CAP, the 2018 RTP/SCS, and CARB’s Scoping Plan. However as previously discussed, the proposed project would result in GHG emissions that would exceed the 0.50 MT CO<sub>2</sub>e/service population/per year threshold. Therefore, the proposed project would generate GHG emissions that may interfere with the implementation of GHG reduction goals for 2030 and 2045.

## Summary

As evaluated above, the proposed project will have to comply with stringent building codes in effect at the time construction occurs, which are moving towards the goal of Net Zero Energy Consumption for commercial structures by 2030. The proposed project would be generally consistent with the City's BMPs included in the 2014 CAP, which was addressed at meeting GHG reductions consistent with AB 32, which set a goal for 2020 but not beyond. The proposed project would support the overarching goals of the 2018 RTP/SCS and would not conflict with the applicable strategies in CARB's Scoping Plan. However, the proposed project would result in GHG emissions that would exceed the 0.50 MT CO<sub>2</sub>e/service population/per year threshold. Therefore, the proposed project could impede the state from meeting its long-term GHG emission reduction targets. As such, the proposed project would result in a **potentially significant impact** related to the potential for the proposed project to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

## Mitigation Measures

Implementation of Mitigation Measures 4.7-1 and 4.7-2 would be required to reduce impacts related to the potential for the proposed project to conflict with SB 32, EO S-3-05, and AB 1279. No mitigation measures in addition to Mitigation Measures 4.7-1 and 4.7-2 would be required. However, even with implementation of Mitigation Measures 4.7-1 and 4.7-2, impacts would remain significant and unavoidable.

## Cumulative Impacts

The cumulative context is the San Joaquin Valley air basin.

**Impact 4.7-3      The proposed project would result in cumulatively considerable impacts with regard to greenhouse gas emissions.**

As previously discussed in Section 4.7.2, Environmental Setting, GHG emissions inherently contribute to cumulative impacts. As discussed in Impact 4.7-1, the proposed project would result in GHG emissions that would exceed the significance threshold of 0.50 MT CO<sub>2</sub>e/service population/per year. Therefore, the proposed project's GHG emissions would be cumulatively considerable and the impact would be **potentially significant**.

## Mitigation Measures

Implementation of Mitigation Measures 4.7-1 and 4.7-2 would be required to reduce impacts related to cumulative GHG impacts. No mitigation measures in addition to Mitigation Measures 4.7-1 and 4.7-2 are available. However, even with implementation of Mitigation Measures 4.7-1 and 4.7-2, the project's contribution to cumulative impacts would be significant and unavoidable.

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## 4.8 Hazards and Hazardous Materials

### 4.8.1 Introduction

This section analyzes the potential impacts associated with implementation of the St. Joseph’s Medical Center of Stockton Hospital Expansion project (“proposed project”) on hazards and hazardous materials, including mitigation measures that may be needed to reduce impacts to less than significant. This analysis includes a description of the existing hazards and hazardous materials setting of the project site and vicinity, identifies associated regulatory standards, and assesses whether the project would create a significant hazard to the public or the environment due to the use, storage, or transport of hazardous materials or the creation of hazardous conditions.

There were no comments received in response to the Notice of Preparation regarding hazards or hazardous materials. A copy of the Notice of Preparation and comments received are included in Appendix A.

The primary source referenced to prepare the analysis is the St. Joseph’s Medical Center Phase 1 Environmental Assessment Report (Phase 1 ESA) prepared by Property Conditions Assessments LLC in August 2021. A copy of this report is provided in Appendix G.

### 4.8.2 Environmental Setting

This section describes the existing hazards and hazardous materials setting in the City of Stockton (City) as it relates to the proposed project.

#### Site Location

The project site includes the existing 18.7-acre St. Joseph’s Medical Center of Stockton (“Medical Center”) campus and off-campus parcels, some of which are proposed for short-term uses during and after construction. The project site is located near downtown Stockton and adjacent land uses include a variety of residential, commercial, offices, and public facilities. Commercial and office buildings are located to the north and west, residential neighborhoods to the west, the San Joaquin Catholic Cemetery to the east, and County and City facilities, including medical clinics, a behavior health center, and City fire station, to the south.

#### Historical and Proposed Uses of the Project Site

The Medical Center was founded in 1899 and has experienced consistent growth throughout the ensuing 123 years. By 1927, the Medical Center included a medical and surgical department, maternity department, children’s ward, obstetrical department, chapel, and living quarters. The campus continued to expand and new hospital wings and departments were built in the 1950s through the 1980s. The last expansion occurred in the 1990s when a new cancer center, the Women and Children’s Pavilion, and a new Heart Center wing were constructed.

The Initial Expansion phase, which is anticipated to be built over four phases, would include removal of existing buildings to construct a new Acute Care Hospital Tower accommodating the expansion of acute care services, a new Parking Structure, new Central Utility Plant and maintenance building, and other required support facilities, including temporary uses, both on and off the existing Medical Center campus. Phase 5 is considered a future phase which may include expansion of the Acute Care Hospital Tower along with additional parking. To accommodate the project, numerous buildings and structures would be removed, as described in Chapter 2, Project Description.

## Soil Conditions

The project site is located in an area of the Great Valley geologic province of the western United States. This province consists of a low-lying valley approximately 400 miles long and 20 to 70 miles wide, covering over 20,000 square miles. The valley is filled by marine and continental sediments. According to the Geologic Map of the Stockton Quadrangle published by the California Department of Mines, the project site is mapped within the Modesto Formation of the Pleistocene age. This formation consists of gravel, sand, silt and clay (see Appendix G).

## Airports and Schools

The project site is located within the Stockton Unified School District and there are several schools within one mile of the project site, including Stockton Early College Academy, which is located directly southwest (0.1 miles) of the project site across N. California Street/E. Harding Way intersection, Port City Academy located approximately 0.5 miles east, Wilson Elementary School approximately 0.5 miles northwest, El Dorado Elementary School approximately 0.6 miles west, Lottie Grunskey Elementary School approximately 0.7 miles east, Cleveland Elementary approximately 0.7 miles northwest, Stagg High School approximately 0.7 miles south, and St. Luke's Catholic School approximately 0.9 miles north.

The Stockton Municipal Airport is located immediately south of the City limit and provides commercial passenger service along with air cargo services. The airport is located approximately 5.3 miles southeast of the project site. The Airport Influence Area (AIA) is an area which may significantly affect land uses or necessitate restriction on those uses as determined by an airport land use commission (ALUC). The AIA includes the areas surrounding the airport that are affected by noise, height, and safety issues. The AIA for Stockton Municipal Airport is established by the San Joaquin County ALUC in the Airport Land Use Compatibility Plan. The AIA encompasses approximately 56,000 acres surrounding the airport. The project site is not within the AIA of the airport (San Joaquin Council of Governments 2018).

## Phase 1 Environmental Site Assessment

A Phase 1 ESA was prepared by Property Condition Assessments LLC in August 2021 for six (6) buildings in the northern portion of the Medical Center campus slated to be removed to accommodate new development, as shown in Table 2-3 on page 2-9 in Chapter 2, Project Description. No recognized environmental conditions (RECs) were identified in any of the buildings or on the campus. However, lead-based paint (LBP) exceeding the regulatory action levels was discovered on the outside doors of the McCloud Building and Main Hospital Wing. A copy of the Phase 1 ESA is included in this Draft EIR as Appendix G.

No permanent uses are proposed on the off-campus parcels; therefore, these sites were not evaluated in the Phase 1 ESA. Because these sites would not be developed with permanent uses and are either undeveloped or contain surface parking lots it is anticipated there are no RECs present.

To determine if residual lead from LBP or prior use of pesticides are present in soils on the site, near the buildings slated for removal, a Phase 2 ESA was prepared that evaluated soil samples taken from the site (Appendix G). Levels of residual lead were found to be present in the samples tested.

## Government Database Search Results

As part of the Phase 1 ESA, a comprehensive review of government (federal and state) environmental databases was conducted for the project site to identify any potential RECs. The databases reviewed included the National Priorities List (NPL), Comprehensive Environmental Response Compensation Liability Information System, Resource Conservation and Recovery Act (RCRA) program, Emergency Response Notification System, Toxic Substances Control Act, State Landfill, Registered Underground Storage Tanks, Leaking Underground Storage Tank Incident Report, and Voluntary Cleanup Program. The results of the search indicate that the existing Medical Center campus generates between 100 to 1,000 kilograms of hazardous waste per month; this includes ignitable waste, corrosive waste, spent halogenated solvents, and other waste. A leaking underground storage tank (LUST) containing diesel and impacted soils was excavated and removed from the project site and the Central Valley Regional Water Quality Control Board (RWQCB) closed the matter in 1996 (Appendix G, p. 12). The project site also contains a 20,000-gallon diesel underground storage tank (UST) and 9,950-gallon diesel aboveground storage tank located at the Central Utility Plant within the northern portion of the Medical Center campus. No other RECs were identified.

## EnviroSource

A search of the Department of Toxic Substances Control (DTSC) Envirostor database was completed, which found several active cleanup sites listed within two (2) miles of the project site. The closest active cleanup site is at 4204-4208 North Sutter Street approximately 0.9 miles northwest of the project site associated with past agricultural use (DTSC 2021). There is another active cleanup site at 848 West Fremont Street, approximately 1.3 miles southwest of the project site is still undergoing remediation. A federal superfund site is located 1.7 miles southwest of the project site at 1214 West Washington Street associated with a former wood-preserving facility, which resulted in hazardous substances in the soil and groundwater beneath the site and in the Port of Stockton. There are also several leaking underground storage tank cleanup sites, including one associated with the Medical Center itself (discussed above); however, these cleanups have all been completed and no further action is required. According to this search, the project site is not included on the California Environmental Protection Agency's Cortese List which indicates if a project site is located on a hazardous materials release site.

## GeoTracker

A review of California State Water Resource Control Board's GeoTracker database did not reveal any open status cleanup sites within 1,000 feet of the project site (SWRCB 2022). The nearest LUST cleanup site is approximately 1,500 feet west of the project site at 1502 El Dorado Street; it is the site of a former 76 gas station in which three USTs were removed in 1999. The site has since undergone remediation activities and is currently under assessment by the State Water Resource Control Board (SWRCB). According to the GeoTracker database, three (3) LUST cleanup sites are listed within 1,000 feet of the project site, including one on the project site; however, these cleanups have all been completed, are assigned a status of "case closed" and no further action is required.

## Wildland Fires

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the project site is within a Local Responsibility Area (LRA) (CAL FIRE 2007). CAL FIRE has determined that San Joaquin County has no High or Very High Hazard Severity Zones in the LRA. Therefore, the risk of wildfire at the project site is considered low.



## 4.8.3 Regulatory Setting

### Federal Regulations

#### U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) was established in 1970 to consolidate in one agency a variety of federal research, monitoring, standard-setting, and enforcement activities to ensure environmental protection. The EPA's mission is to protect human health and to safeguard the natural environment upon which life depends. The EPA works to develop and enforce regulations that implement environmental laws enacted by Congress, is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for using permits and for monitoring and enforcing compliance. Where national standards are not met, the EPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality.

#### Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act (RCRA) of 1976 established a program administered by the EPA to regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the “cradle-to-grave” system of regulating hazardous wastes. This includes the generation, transportation, treatment, storage, and disposal of hazardous waste by “large-quantity generators” (1,000 kilograms/month or more). This system involves procedures in which hazardous materials are identified from their generation. Through these procedures, the hazardous waste generator is responsible for the management, storage, and disposal of the hazardous materials, from its initial generation to its ultimate disposal. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed at a facility, any treatment, storage, or disposal unit must be permitted under RCRA. Additionally, all hazardous waste transporters are required to be permitted and must have an identification number. RCRA allows individual states to develop their own program for the regulation of hazardous waste, as long as the regulations are as stringent as the RCRA.

Title IV of the Toxic Substances Control Act, as well as other authorities in the Residential Lead-Based Paint Hazard Reduction Act of 1992, directs EPA to regulate LBP hazards. Workers engaged in lead abatements, risk assessments, and inspections for the presence of LBP must be trained and certified in specific practices in accordance with 40 CFR Part 745. Those engaged in renovation, repair and painting must be trained in lead-safe work practices and requires contractors to provide information on lead safety prior to beginning work.

#### Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as “Superfund,” was enacted by Congress on December 11, 1980. This law (42 USC 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when

no responsible party can be identified. CERCLA also enables the revision of the National Contingency Plan. The National Contingency Plan (40 CFR 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The National Contingency Plan also established the NPL which is a list of sites of national priority among known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. The NPL is intended to guide the EPA in determining which sites warrant further investigation. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

### Clean Water Act/Spill Prevention, Control, and Countermeasure Rule

The Clean Water Act (33 USC 1251 et seq., formerly known as the Federal Water Pollution Control Act of 1972), was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of waters of the United States. As part of the Clean Water Act, the EPA oversees and enforces the Oil Pollution Prevention regulation contained in 40 CFR 112, which is often referred to as the “SPCC rule” because the regulations describe the requirements for facilities to prepare, amend, and implement spill prevention, control, and countermeasure (SPCC) plans. A facility is subject to SPCC regulations if a single oil storage tank has a capacity greater than 660 gallons, or the total aboveground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the “navigable waters” of the United States.

### Occupational Safety and Health Administration

The Occupational Safety and Health Administration’s (OSHA) mission is to ensure the safety and health of U.S. workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. The OSHA staff establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in 29 CFR 1910.

### Other Regulations

Other federal regulations overseen by the EPA relevant to hazardous materials and environmental contamination include 40 CFR Parts 100 to 149 – Water Programs, 40 CFR Parts 239 to 259 – Solid Wastes, and 40 CFR Parts 260 to 279 – Hazardous Waste. These regulations designate hazardous substances under the Clean Water Act; determine the reportable quantity for each substance that is designated as hazardous; and establish quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the United States.

## State Regulations

### Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act (also known as the “Hazardous Materials Business Plan Act”) requires businesses using hazardous materials to prepare a plan that describes their facilities, inventory of hazardous materials, emergency response plans, and training programs. Hazardous materials are defined as unsafe raw or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

In accordance with California Health and Safety Code, Article 1, Chapter 6.95 (Hazardous Material Release Response Plans and Inventory), the Medical Center is required to prepare a Hazardous Materials Business Plan (HMBP) for submittal to the California Environmental Reporting System. This is required for businesses that handle hazardous material or a mixture containing a hazardous material in reportable quantities as set forth by California Health and Safety Code. Per this state legislation, the Medical Center is required to develop, implement and submit a HMBP in California Environmental Reporting System. The Medical Center's current HMBP will be updated to include the proposed new uses.

### Hazardous Waste Control Act

The Hazardous Waste Control Act created the State Hazardous Waste Management Program, which is similar to but more stringent than the federal RCRA program. The act is implemented by regulations contained in Title 26 CCR, which describes the following required aspects for the proper management of hazardous waste:

- Identification and classification
- Generation and transportation
- Design and permitting of recycling, treatment, storage, and disposal facilities
- Treatment standards
- Operation of facilities and staff training
- Closure of facilities and liability requirements

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the DTSC.

### Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

Senate Bill 1082 (1993) created the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program ("Unified Program"), which requires the administrative consolidation of six hazardous materials and waste programs ("Program Elements") under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are as follows:

- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (i.e., Tiered Permitting)
- Aboveground Petroleum Storage Tank Program
- Hazardous Materials Release Response Plans and Inventory Program (i.e., Hazardous Materials Disclosure or "Community-Right-To-Know")
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Uniform Fire Code Plans and Inventory Requirements

The Unified Program is intended to provide relief to businesses in complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health

or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

### California Environmental Protection Agency

The California Environmental Protection Agency (Cal EPA) was created in 1991 and unified California's environmental authority, bringing the California Air Resources Board, SWRCB, Regional Water Quality Control Board, CalRecycle, DTSC, Office of Environmental Health Hazard Assessment, and Department of Pesticide Regulation under one agency. These agencies were placed within Cal EPAs "umbrella" for the protection of human health and the environment and to ensure the coordinated deployment of state resources. Their mission is to restore, protect, and enhance the environment and to ensure public health, environmental quality, and economic vitality.

### Department of Toxic Substances and Control

The Department of Toxic Substance and Control (DTSC), a department of Cal EPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Government Code Section 65962.5 requires DTSC, the State Water Resources Control Board, the California Department of Health Services, and local enforcement agencies working through CalRecycle to submit to the Secretary for Environmental Protection separate lists of contaminated sites that the Secretary then pulls together into a single list for distribution to local governments with jurisdiction over sites on the list (commonly referred to as the Cortese List). Specifically, this list includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the State Water Resource Control Board as having underground storage tank leaks or a discharge of hazardous wastes or materials into the water or groundwater and lists from local regulatory agencies of sites with a known migration of hazardous waste or material.

### California Office of Emergency Services

To protect public health, safety, and the environment, the California Office of Emergency Services is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release, or threatened release, of hazardous materials. The Office of Emergency Services requires that basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and health risks) be available to firefighters, public safety officers, and regulatory agencies. Typically, this information should be included in business plans to prevent or mitigate damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment. These regulations are covered under Chapter 6.95 of the California Health and Safety Code, Article 1 – Hazardous Materials Release Response and Inventory Program (Sections 25500 to 25520) and Article 2 – Hazardous Materials Management (Sections 25531 to 25543.3).

Title 19 CCR, Public Safety, Division 2, Office of Emergency Services, Chapter 4 – Hazardous Material Release Reporting, Inventory, and Response Plans, Article 4 (Minimum Standards for Business Plans) establishes minimum statewide standards for hazardous materials business plans. These plans must include the following: (1) a hazardous material inventory in accordance with Sections 2729.2 to 2729.7, (2) emergency response plans and

procedures in accordance with Section 2731, and (3) training program information in accordance with Section 2732. Hazardous materials business plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state. Each business will prepare a hazardous materials business plan if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to the following:

- 500 pounds of a solid substance
- 55 gallons of a liquid
- 200 cubic feet of compressed gas
- A hazardous compressed gas in any amount
- Hazardous waste in any quantity

### California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. An employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

Cal/OSHA also regulates worker exposure during construction activities that disturb LBP. Title 8, Section 1532.1 of the California Code of Regulations applies to all construction work where an employee may be occupationally exposed to lead including demolition or salvage of structures where lead or materials containing lead are present. Construction workers must establish and implement a compliance program pursuant to Section 1532.1 and provide a written Pre-Job Notification to the nearest Cal/OSHA office 24 hours before the start of a project. Contractors that would remodel or demolish more than six square feet of materials containing LBP are required to be certified by the EPA. Under California regulations, workers must assess the level of lead exposure on their job site, as well as regularly gauge lead levels as the project progresses.

### California Highway Patrol

A valid Hazardous Materials Transportation License, issued by the California Highway Patrol, is required by the laws and regulations of State of California Vehicle Code Section 3200.5 for transportation of either:

- Hazardous materials shipments for which the display of placards is required by state regulations; or
- Hazardous materials shipments of more than 500 pounds, which would require placards if shipping greater amounts in the same manner.

Additional requirements on the transportation of explosives, inhalation hazards, and radioactive materials are enforced by the California Highway Patrol under the authority of the State Vehicle Code. Transportation of explosives generally requires consistency with additional rules and regulations for routing, safe stopping distances, and inspection stops (14 CCR 6 [1] [1150–1152.10]). Inhalation hazards face similar, more restrictive rules and regulations (13 CCR 6 [2.5] [1157–1157.8]). Transportation of radioactive materials is restricted to specific safe routes.

## California Medical Waste Management Act

California Health and Safety Code Sections 117600-118360, last updated January 2017, is known as the Medical Waste Management Act (MWMA) and regulates the proper handling, storage, treatment, and transportation of medical waste. The MWMA outlines requirements for small and large quantity generators of medical waste; the Medical Center currently generates over 200 pounds of medical waste per month. Therefore, is required to register for as a large quantity medical waste generator, pay annual permit fees, and complete of a Medical Waste Management Plan. Furthermore, as a large quantity generator, the Medical Center is required to adhere to the following per the MWMA: register with an enforcement agency prior to generating medical waste, annual inspection by the enforcement agency, maintain a minimum of two years of treatment records and tracking document for untreated medical waste shipped off site, and follow specific treatment, containment, and storage requirements.

## Local Regulations

### Envision Stockton 2040 General Plan

The City's Envision Stockton 2040 General Plan Safety Element includes the following goals, policies and actions related hazards and hazardous materials that are relevant to evaluation of the proposed project (City of Stockton 2018):

Goal SAF-2. Hazard Protection. Protect residents and businesses from natural and human-caused hazards.

Policy SAF-2.1. Ensure that community members are adequately prepared for natural disasters and emergencies through education and training.

Policy SAF-2.2. Prepare sufficiently for major events to enable quick and effective response.

Action SAF-2.2A. Require new development to provide adequate access for emergency vehicles and evacuation routes, including by designing roadway systems to provide multiple escape routes in the event of a levee failure.

Action SAF-2.2C. Require new critical facilities, including hospitals, emergency operations centers, communications facilities, fire stations, and police stations, to be located, designed, and constructed to avoid or mitigate potential risks and ensure functional operation during flood events (i.e., avoid locating in the 100-year and 200-year floodplains), seismic and geological events, fires, and explosions.

Policy SAF-2.6. Minimize the risk to city residents and property associated with the transport, distribution, use, and storage of hazardous materials.

Action SAF-2.6A. Restrict transport of hazardous materials within the city to routes that have been designated for such transport.

Action SAF-2.6B. When appropriate, require new development to prepare a hazardous materials inventory and/or prepare Phase I or Phase II hazardous materials studies, including any required cleanup measures.



## Stockton Municipal Code

### Chapter 16.36.080 – Hazardous Materials:

This section of the Stockton Municipal Code, included in Title 16, Development Code, establishes standards for regulating the use, handling, storage, and transportation of hazardous materials. According to Section 16.36.080(A), a use permit is required for addition to existing uses (over 10%) within 1,000 feet of a residential zoning district that involves the manufacture, storage, handling, or processing of hazardous materials in quantities that would require permits as hazardous materials. This section of the Development Code also provides standards for reporting, notification, new development, and storage of hazardous materials.

### Stockton Emergency Operations Plan

The City maintains an Emergency Operations Plan (EOP) which addresses the City’s planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The EOP establishes the emergency management organization required to mitigate any significant emergencies and identifies roles and responsibilities required to protect the health and safety of Stockton residents and property. In addition, the EOP establishes operations concepts associated with a field response to emergencies.

### Stockton Fire Department

The Stockton Fire Department’s Hazardous Materials (“Haz Mat”) Team is responsible with mitigating hazardous materials releases and environmental emergencies. The Haz Mat Team is also in charge of coordinating with state and local authorities to prepare, prevent, respond to, mitigate, and determine the responsible party for a variety of hazardous materials releases.

### San Joaquin County Office of Emergency Services

The San Joaquin County Office of Emergency Services is responsible for preparing the County’s Local Hazard Mitigation Plan (LHMP). The federal Disaster Management Act of 2000 requires local agencies to develop LHMPs in order to qualify for grant funding for hazard mitigations. To maintain eligibility for funding, the plans are updated on a five-year cycle of monitoring, evaluating, and updating. The most recent LHMP for San Joaquin County was completed in 2017. The San Joaquin County LHMP identifies and profiles human-made and natural hazards, and prioritizes hazard mitigations, which are actions that reduce the severity or intensity of risk from potential disasters and allow for quicker recovery from disaster (San Joaquin County 2017).

## 4.8.4 Impacts and Mitigation Measures

### Methods of Analysis

Impact determinations are based on the potential risks of exposure to hazards and hazardous materials during demolition, construction, and operation of the project. The following reports and data sources document potentially hazardous conditions at the project site and were reviewed for this analysis:

- Phase I ESA prepared by Property Conditions Assessments LLC in August 2021 (Appendix G). The Phase I ESA includes (1) a reconnaissance of the project site; (2) site interviews with individuals knowledgeable and familiar with the project site; (3) a search of regulatory agency records for information regarding

hazardous materials use, storage, and/or releases; and (4) published database review for reported environmental concerns or incidents.

- Phase 2 ESA prepared by Wallace Kuhl in January 2022 (Appendix G) to determine if residual lead from LBP or prior use of pesticides are present in soils on the site, near the buildings slated for removal.
- California Environmental Protection Agency's Cortese List Database (including the SWRCB GeoTracker website and DTSC Envirostor website).

Project construction and operation activities were evaluated using the information from these sources to determine whether any risks to public health and safety or other conflicts would occur. Furthermore, this analysis assumes project compliance with federal, state, and local regulations governing hazardous conditions and the handling, use, storage, transport and disposal of hazardous materials.

### Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact would occur if development or implementation of the proposed project would do any of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 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.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.
- Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- Be located within an airport land use plan, be within two miles of a public airport, and result in a safety hazard or excessive noise for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

### Significance Threshold Criteria Not Applicable to the Proposed Project

Potential impacts regarding airport hazards and wildland fires were addressed in the Initial Study (IS) prepared for this project (Appendix B). A brief discussion of conclusions made in the IS is included below.

#### Airport Hazards

A project located within either an airport land use plan or within two miles of a public or private airport where excessive noise could affect people living or working in the area would have a potentially significant impact. As noted in Section 4.8.2 and in Appendix B, the closest airport to the project site is the Stockton Metropolitan Airport, located approximately 5.3 miles southeast of the project site. Also, the project site is not located within an airport land use plan. For these reasons, the project would have no impact associated with airport hazards and this topic is not discussed further in this environmental impact report (EIR).

## Wildland Fires

A project that could expose people or structures to loss, injury or death due to wildland fires would be a potentially significant impact. As described above in Section 4.8.2 and in Appendix B, the project site is in an urbanized area of the City within a Local Responsibility Area (LRA) and is not designated as a very high fire hazard severity zone (FHSZ) (CAL FIRE 2007). The proposed project is within a developed urban area and no wildlands are located on or near the project site. Fire suppression services in the project area would continue to be provided by the Stockton Fire Department. The project site is not in or near an area of high fire hazard severity, adequate fire protection services would be provided by the Stockton Fire Department, and the project would be designed to be Fire Code-compliant. For these reasons, the project would have no impact associated with wildland fires and this topic is not discussed further in this EIR.

## Project Impacts

**Impact 4.8-1      The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

As described in Chapter 2, Project Description, implementation of the project would involve demolition of existing Medical Center buildings and an unoccupied single-family residence (see Table 2-3 in Chapter 2 for buildings and structures to be removed). The project also involves the construction of new buildings. The “Initial Expansion” would include the construction of a new Acute Care Hospital Tower, Parking Structure (with rooftop heliports), and related support buildings. A possible fifth phase (“Phase 5 Expansion”) would likely include the continued expansion of acute care hospital services and parking.

## Construction

Project construction activities would involve temporary use of hazardous materials, including fuel for construction equipment, paints, solvents, and sealants. Storage, handling, and use of these materials would occur in accordance with standard construction best management practices to minimize the potential for spill or release and ensure that any such spill or release would be controlled on site. This would include storing all hazardous materials inside buildings or under other cover, vehicle specifications for hazardous material transport and disposal, procedures for safe storage, and training requirements for those handling hazardous materials. Project construction contractors are required by state law to implement and comply with existing hazardous material regulations. Because each of these regulations is specifically designed to protect the public health through procedures for transporting, storing, and handling hazardous materials, improved technology in the equipment used to transport these materials, and quicker, more coordinated response to emergencies.

Construction activities also include the removal of numerous buildings and support structures. To assess the potential for hazardous materials to be present within the portion of the campus to be redeveloped, including the buildings to be demolished a Phase 1 ESA was prepared (Appendix G). The Phase 1 ESA indicates the presence of LBP exceeding current acceptable levels on the outside doors of the existing Main Hospital Wing and McCloud Building. A total of 10 samples were collected and all the paint surfaces were below the regulatory standard for lead, except for the outside entrance doors for the Main Hospital Wing and McCloud Building. The Phase 1 ESA assessed other potential materials of concern including Polychlorinated Biphenyls (PCBs) and asbestos-containing materials (ACM). Preparers of the Phase 1 ESA noted that PCBs can be found in electrical transformers. The Phase 1 ESA concludes that electrical transformers in the basement of the Main Hospital Wing and McCloud Building were in good condition and no leaking or staining was observed. The Phase 1 ESA also collected building material samples to test for the presence of ACMs.

A total of 21 samples were obtained from 17 locations and the results of laboratory analyses did not detect ACMs. For these reasons, PCBs and ACMs are not considered environmental issues of concern for the project.

As noted above, the Phase 1 ESA detected the presence of LBP on the Main Hospital Wing and McCloud Building exterior doors. Both buildings would be demolished to accommodate the new Acute Care Hospital Tower due to building age and lack of seismic compliance. Removal of these doors slated for demolition that contain LBP, as well as transportation and disposal of building materials, could potentially cause a release of these materials into the environment.

The Phase 1 ESA recommended that LBP exceeding acceptable regulatory levels be abated by a certified abatement consultant prior to the demolition of the buildings in accordance with federal, state, and local regulations, described in Section 4.8.3. In particular, removal of LBP would be compliant with the federal Toxic Substances Control Act, Hazardous Waste Control Act, and Chapter 16.36.080 of the Stockton Municipal Code. To determine if residual lead from LBP or prior use of pesticides are present in soils on the site, near the buildings slated for removal, a Phase 2 ESA was prepared that evaluated soil samples taken from the site (Appendix G). Levels of residual lead were found to be present in the samples tested. All construction activities should and would be carried out in compliance with Cal/OSHA which has established limits of exposure to lead contained in dusts and fumes, which provides for exposure limits, exposure monitoring, and respiratory protection, and mandates good working practices by workers exposed to lead. Lead-contaminated debris and other wastes would be managed and disposed of in accordance with applicable provisions of the California Health and Safety Code. However, due to the presence of LBP on the exterior doors of the Main Hospital Wing and McCloud Building and in the soils on the site this is considered a **potentially significant impact**.

### Operation

Hazardous materials used or handled during long-term operation of the project would not differ from existing conditions. These materials would include building maintenance and cleaning chemicals, landscaping fertilizers, and medical waste. These materials are commonly used at the site and the project is not expected to present any significant risks associated with their use. During operation, the new Acute Care Hospital Tower would routinely store, use, handle, and dispose of a variety of medical waste that is considered hazardous. Pursuant to the State of California Medical Waste Management Act, the Medical Center is required to prepare a medical waste management plan (MWMP) for submittal to the California Department of Public Health. The MWMP would describe the types and amounts of medical waste generated and how the waste would be disposed. Additionally, in accordance with California Health and Safety Code, Article 1, Chapter 6.95 for the business emergency plan, the Medical Center must also prepare a HMBP for submittal to the California Environmental Reporting System. It is anticipated the Medical Center's existing MWMP and HMBP would be updated to include the new uses. Implementation of the MWMP and HMBP would reduce potentially significant impacts related to operational hazards and hazardous materials.

The Medical Center is also required to comply with all applicable federal, state, and local laws, including the California Hazardous Waste Control Law and the Hazardous Waste Control Regulations. Additionally, the transport, use, and disposal of hazardous materials would not differ dramatically in type and quantity from existing operations. Preparation of MWMP and HMBP would be required prior to receiving a certificate of occupancy for the new Acute Care Hospital Tower building, to ensure the safe routine transport, use, and/or disposal of hazardous materials. Therefore, impacts related to the creation of significant hazards to the public through routine transport, use, disposal, and risk of upset during project operations would be **less than significant**.

### Mitigation Measures

Mitigation Measure 4.8-1 requires an abatement work plan be prepared and a monitoring plan be conducted for the presence of LBP. Monitoring shall be conducted by a qualified consultant prior to and during demolition of the Main Hospital Wing and the McCloud Building. Implementation of this mitigation measure would ensure that LBP would be properly abated from the project site before these materials could potentially be released into the environment through building demolition. Furthermore, implementation of this mitigation measure prior to building demolition and soil disturbance would limit the exposure of lead contained in dusts and fumes to construction workers, in compliance with Cal/OSHA. Therefore, compliance with Mitigation Measure 4.8-1 would reduce impacts to less than significant.

MM 4.8-1      **Lead-based Paint Abatement.** Prior to demolition permit issuance, the project applicant or their contractor shall retain a certified abatement contractor to prepare an abatement work plan in compliance with state and federal regulations for removal of lead-based paint identified on the outside doors of the McCloud and Main Hospital Wing buildings and include a monitoring plan to be conducted by a qualified consultant during abatement activities to ensure compliance with the work plan requirements and abatement contractor specifications. In addition, a certified contractor shall collect soil samples in the locations identified in the Phase 2 ESA to be tested to ensure any soil exported off-site or stockpiled soil on-site does not exceed 50 mg/kg. Demolition plans and contract specifications shall incorporate any necessary abatement measures for the removal of materials containing lead-based paint to the satisfaction of the City's Community Development Department.

Impact 4.8-2      **The proposed 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.**

Project implementation would involve demolition of existing buildings and structures and construction of a new Acute Care Hospital Tower building, a new Parking Structure and other associated buildings. As described in Section 4.8.1, Environmental Setting, a database search conducted as part of the Phase 1 ESA indicated that a LUST containing diesel and impacted soils was excavated and removed from the project site in 1996. The project site also has a 20,000-gallon diesel UST and 9,950-gallon diesel aboveground storage tank located at the Central Utility Plant area of the Medical Center campus that would remain in place and unaltered by the project. Additionally, according to a search of the DTSC Envirostor database, there are several active cleanup sites listed within two (2) miles of the project site, but these cleanups have all been completed and no further action is required. The project site is not included in or near any identified hazardous sites.

### Construction

Construction activities associated with the proposed project could result in disturbance of undocumented hazardous materials and conditions within the project site. Furthermore, demolition of existing structures could

result in release of hazardous materials (e.g., LBP as discussed under Impact 4.8-1 above) into the environment. Compliance with federal and state requirements governing hazardous materials as well as local regulations and policies (i.e., General Plan policies and Stockton Municipal Code) described in Section 4.8.2, Regulatory Setting, would ensure that construction activities would not disturb or otherwise release any existing hazardous conditions at the site. Chapter 16.36.080 of the Stockton Municipal Code also establishes standards for the proper use, handling, storage, and transportation of hazardous materials along with the California Highway Patrol for the transport of hazardous materials on state highways. Construction activities would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials during construction because the project is required to comply with all federal, state and local requirements regarding the use, storage, disposal, and transport of hazardous materials. Therefore, impacts associated with project construction would be **less than significant**.

### Operation

As noted in the Phase 1 ESA, the Medical Center currently generates between 100 kilograms to 1,000 kilograms of hazardous medical waste per month; this includes ignitable waste, corrosive waste, spent halogenated solvents, and other waste. The proposed project would generate similar types of hazardous medical waste. Expansion of the Medical Center may result in increased quantities of hazardous medical waste due to the increase in patients and services; however, Medical Center operations would continue to be subject to regulations of the California MWMA regarding the use, handling, storage, disposal, and transportation of medical waste. The MWMA outlines requirements for small and large generators of medical waste, including registration as a medical waste generator and payment of annual permit fees, as well as the implementation of a MWMP. Additionally, the transport, use, and disposal of hazardous materials would not differ dramatically in type and quantity from existing operations, none of which are currently considered environmental concerns. Continued compliance with the MWMA would ensure that impacts related to the creation of significant hazards to the public through reasonably foreseeable upset and accident conditions during project operation would be **less than significant**.

### Mitigation Measures

None required.

**Impact 4.8-3      The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.**

As described in Section 4.8.1, Environmental Setting, the project site is located within 0.25 miles of Stockton Early College Academy located directly southwest (0.1 miles) of the project site across from the N. California Street/E. Harding Way intersection, located at 349 East Vine Street. As described under Impacts 4.8-1 and 4.8-2, the use, storage, transport, and/or disposal of hazardous materials would occur in compliance with local, state, and federal regulations during building demolition and construction. Once operational, the project would generate potentially hazardous medical waste. The proposed new uses and building maintenance activities would use, store, and dispose of hazardous materials, substances, and/or wastes in compliance with the MWMA that regulates the handling, storage, treatment, and transportation of medical waste and the Medical Center's HBMP. Because these hazardous materials would be used in accordance with existing regulations and in accordance with the manufacturer's requirements and would not pose hazards to visitors, employees or to students and faculty at nearby schools. For these reasons, the proposed project would not result in hazardous emissions within the vicinity of the existing schools; impacts would be **less than significant**.



## Mitigation Measures

None required.

**Impact 4.8-4      The proposed project site is not included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment.**

Created pursuant to Government Code Section 65962.5, the State of California Hazardous Waste and Substances Site List (also known as the “Cortese List”) is a planning document used by state and local agencies to determine if a project or its location is identified as a hazardous materials site. According to the DTSC EnviroStor database, the closest active cleanup site is located approximately 0.9 miles northwest of the project site at 4204-4208 N. Sutter Street (DTSC 2022). However, cleanup of that site is currently underway and would not impact the project area due to localized contamination (soil contamination associated with previous agricultural uses) and distance from the project site. There have been several nearby LUST cleanup sites including one at the project site, but these have all been remediated and no further action is required. As provided in Section 4.8-1, Environmental Setting, the project site is not included on a list of hazardous-materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List). For these reasons, there would be **no impact**.

## Mitigation Measures

None required.

**Impact 4.8-5      The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

The City does not have an adopted emergency response plan or emergency evacuation plan. The City prepared a draft Emergency Operations Plan in 2012 that has not been adopted (City of Stockton 2012). The San Joaquin County’s LHMP covers human-made and natural hazards and provides hazard mitigation intended to reduce the severity or intensity of risk from potential disasters and allow for quicker recovery from disaster. The LHMP is comprised of several elements related to planning, hazard identification, risk assessment, mitigation strategy, and plan implementation. The LHMP addresses current potential hazards and previous occurrences of hazards related to energy shortages, earth movements, drought, fire, and floods. The LHMP identifies response agencies for potential hazardous events and prescribes mitigation actions which primarily involve infrastructure improvement projects throughout the County. The project would not result in modifications or interference with implementation of either the City’s EOP or the County’s LHMP.

The proposed project would be reviewed by the Stockton Fire Department to ensure that sufficient access is provided for fire equipment. The project would be designed to ensure adequate access is provided for fire and equipment around new and existing buildings. The City requires preparation of a temporary traffic control plan for work conducted within a public right-of-way. Because the project would require some work within public rights-or-way it is anticipated the applicant would be required to prepare a temporary traffic control plan that illustrates the location of the proposed work area; identifies the location of areas where the public right-of-way would be closed or obstructed, the placement of traffic control devices necessary to perform the work; shows the proposed phases of traffic control; and identifies the time periods when the traffic control would be in effect and, although not expected, the time periods when work would prohibit access to private property from a public right-of way. The temporary traffic control plan would also provide information on access for emergency vehicles to prevent

interference with emergency response. For these reasons, the project would not interfere with any adopted emergency or evacuation plans and the impact is **less than significant**.

### Mitigation Measures

None required.

### Cumulative Impacts

The geographic context to evaluate cumulative hazards and hazardous materials impacts would include future buildout of the City and its sphere of influence (SOI) under the 2040 General Plan.

Although the entire City and its SOI make up the cumulative context for the analysis of cumulative impacts relating to hazards and hazardous materials, the impacts of individual projects (including hazardous materials usage during construction, or exposure to LBP) are generally site-specific, rather than cumulative in nature. Within the City and SOI, compliance with all applicable federal, state, and local regulations related to hazards and hazardous materials on a project-by-project basis is required for all projects. The same is true for the unincorporated portion of San Joaquin County within the SOI. Therefore, these issues are not addressed in the cumulative impact analysis. Though some hazardous materials releases can cover a large area and interact with other releases (e.g., atmospheric contamination, contamination of groundwater aquifers), incidents of hazardous materials contamination are typically isolated to a specific area, such as LUST sites or a release at an individual business. Because of this, isolated areas of contamination typically do not interact in a cumulative manner with other sites of hazardous materials contamination. Hazardous materials incidents or accidents involving spills or inadvertent releases would also typically be site-specific and would not be additive to effects from incidents occurring elsewhere. Associated health and safety risks generally would be limited to those individuals using the materials or to persons in the immediate vicinity of the materials. Therefore, these issues are not addressed in the cumulative impact analysis.

**Impact 4.8-6      The proposed project, when combined with past, present and reasonably foreseeable future projects, would not contribute to a cumulative increase in the potential exposure of people to hazards associated with the use and transport of hazardous materials.**

Adverse effects of hazards and hazardous materials tend to be localized and not cumulative by nature, as impacts generally vary by land use and site characteristics. Therefore, the areas closest to the project site would be most affected by project activities. The 2040 General Plan EIR concluded that build-out of the General Plan would result in less-than-significant impacts related to hazards and hazardous materials and did not identify an existing cumulative impact because of the localized nature of hazards and hazardous materials impacts. Thus, there is no existing cumulatively significant impact in this regard.

Future projects within the City may use, store, and/or transport hazardous materials. However, these projects would be subject to the same hazardous materials laws and regulations as the project and would be required to implement project-specific mitigation consistent with applicable laws and regulations to reduce any significant hazards and hazardous materials impacts. Any hazardous materials stored on site (at the project site and related sites) would be used/stored in compliance with applicable federal and state laws related to the storage and transport of hazardous materials.

The existing uses on the campus and in the surrounding area either do not handle, use or transport hazardous materials or handle, use, and transport hazardous materials in compliance with existing laws. The existing Medical

Center does handle, use and transport hazardous materials in compliance with existing laws which require the preparation and compliance with a MWMP and a HMBP. Although the proposed project would use, store, handle and transport hazardous materials, the Medical Center complies with the MWMA and HBMP and does not create or is subject to hazards or hazardous material impacts from the use or transport and would not result in a cumulatively considerable contribution when considered in combination with the impacts of nearby projects. Therefore, the proposed project would not have a significant contribution to any existing cumulative impacts and impacts would be **less than significant**.

### Mitigation Measures

None required.

## 4.8.5 References

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## 4.9 Noise

### 4.9.1 Introduction

This section describes the existing ambient noise environment including relevant acoustic fundamentals, ambient noise conditions, summary of regulations applicable to implementation of the St. Joseph's Medical Center of Stockton Hospital Expansion Project ("proposed project") and identifies noise-sensitive land uses proximate to the project site. An analysis of potential effects associated with implementation of the proposed project is provided including any required mitigation measures. Descriptions and analyses presented within this section are based on noise modeling performed by Dudek.

Comments received in response to the Notice of Preparation from the public include concerns raised by the Sierra Club regarding traffic noise associated with the parking structure. A copy of the Notice of Preparation and comments received is included in Appendix A.

The primary sources referenced to prepare this section include the project description and preliminary site diagrams, helicopter information provided by Airspace, the Transportation Technical Memorandum prepared for the transportation analysis (Appendix I), and the construction assumptions prepared for the air quality analysis (Appendix C). This information was used as inputs for noise and vibration methodologies, along with additional guidance issues from the California Department of Transportation, the Federal Transit Administration, and the Federal Highway Administration. The noise modeling assumptions and outputs are included in this EIR as Appendix K.

### 4.9.2 Environmental Setting

This section provides background information and terminology relevant to the noise assessment and describes the existing ambient noise environment that characterizes the project area and immediately adjacent properties.

#### Acoustic Fundamentals

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise; consequently, the perception of sound is subjective in nature, and can vary substantially from person to person. Common sources of environmental noise and relative noise levels are shown in Table 4.9-1.

A sound wave is initiated in a medium by a vibrating object (e.g., vocal cords, the string of a guitar, the diaphragm of a radio speaker). The wave consists of minute variations in pressure, oscillating above and below the ambient atmospheric pressure. The number of pressure variation cycles occurring per second is referred to as the frequency of the sound wave and is expressed in hertz (Hz), which is equivalent to one complete cycle per second.

Directly measuring sound pressure fluctuations would require the use of a very large and cumbersome range of numbers. To avoid this and have a more useable numbering system, the decibel (dB) scale was introduced. Sound level expressed in decibels (dB) is the logarithmic ratio of two like pressure quantities, with one pressure quantity being a reference sound pressure and the second pressure being that of the sound source of concern. For sound pressure in air, the standard reference quantity is generally considered to be 20 micropascals, which directly corresponds to the threshold of human hearing. The use of the decibel is a convenient way to handle the million-

fold range of sound pressures to which the human ear is sensitive. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly added. For example, a 65 dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.

The loudness of sound perceived by the human ear depends primarily on the overall sound pressure level and frequency content of the sound source. The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. The standard weighting networks are identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels (dBA). For this reason, the dBA can be used to predict community response to noise from the environment, including noise from transportation and stationary sources. Sound levels expressed as dB in this section are A-weighted sound levels, unless noted otherwise.

**Table 4.9-1. Typical Noise Levels Associated with Common Activities**

| Common Outdoor Activities                   | Noise Level (dBA) | Common Indoor Activities                    |
|---|-------------------|---|
| —   | 110               | Rock Band                                   |
| Jet Flyover at 1,000 feet                   | —                 | —   |
| —   | 100               | —   |
| Gas Lawn Mower at three feet                | —                 | —   |
| —   | 90                | —   |
| Diesel Truck at 50 feet, 50 mph             | —                 | Food Blender at 3 feet                      |
| —   | 80                | Garbage Disposal at 3 feet                  |
| Noisy Urban Area, Daytime                   | —                 | —   |
| —   | 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 (in next room)                   |
| Quiet Urban Nighttime                       | 40                | Theater, Large Conference Room (background) |
| Quiet Suburban Nighttime                    | —                 | —   |
| —   | 30                | Library                                     |
| Quiet Rural Nighttime                       | —                 | Bedroom at Night, Concert Hall (background) |
| —   | 20                | —   |
| —   | —                 | Broadcast/Recording Studio                  |
| —   | 10                | —   |
| Lowest Threshold of Human Hearing (Healthy) | 0                 | Lowest Threshold of Human Hearing (Healthy) |

Source: Caltrans 2013a.

Noise can be generated by a number of sources, including mobile sources (transportation) such as automobiles, trucks, and airplanes and stationary sources (non-transportation) such as construction sites, machinery, and

commercial and industrial operations. As acoustic energy spreads through the atmosphere from the source to the receiver, noise levels attenuate (decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers (e.g., walls, building façades, berms). Noise generated from mobile sources generally attenuate at a rate of 3dBA (typical for hard surfaces, such as asphalt) to 4.5 dBA (typical for soft surfaces, such as grasslands) per doubling of distance, depending on the intervening ground type. Stationary noise sources spread with more spherical dispersion patterns that attenuate at a rate of 6 to 7.5 dBA per doubling of distance for hard and soft sites, respectively.

Atmospheric conditions such as wind speed, turbulence, temperature gradients, and humidity may additionally alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a large object (e.g., barrier, topographic features, and intervening building façades) between the source and the receptor can provide significant attenuation of noise levels at the receiver. The amount of noise level reduction or “shielding” provided by a barrier primarily depends on the size of the barrier, the location of the barrier in relation to the source and receivers, and the frequency spectra of the noise. Natural barriers such as earthen berms, hills, or dense woods as well as man-made features such as buildings, concrete berms and walls may be effective barriers for the reduction of source noise levels.

## Noise Descriptors

The intensity of environmental noise levels can fluctuate greatly over time and as such, several different descriptors of time-averaged noise levels may be used to provide the most effective means of expressing the noise levels. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment near the receptor(s). Noise descriptors most often used to describe environmental noise are defined below.

**$L_{max}$  (Maximum Noise Level):** The maximum instantaneous noise level during a specific period of time.

**$L_{min}$  (Minimum Noise Level):** The minimum instantaneous noise level during a specific period of time.

**$L_x$  (Statistical Descriptor):** The noise level exceeded “X” percent of a specific period of time. For example,  $L_{50}$  is the median noise level, or level exceeded 50% of the time.

**$L_{eq}$  (Equivalent Noise Level):** The average noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the  $L_{eq}$ . In noise environments determined by major noise events, such as aircraft over-flights, the  $L_{eq}$  value is heavily influenced by the magnitude and number of single events that produce the high noise levels.

**$L_{dn}$  (Day-Night Average Noise Level):** The 24-hour  $L_{eq}$  with a 10-dBA “penalty” for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m. In other words, 10 dBA is “added” to noise events that occur in the nighttime hours, and this generates a higher reported noise level when determining compliance with noise standards. The  $L_{dn}$  attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.

**CNEL (Community Noise Equivalent Level):** The CNEL is similar to the  $L_{dn}$  described above, but with an additional 5-dBA “penalty” added to noise events that occur during the noise-sensitive hours between 7 p.m. and 10 p.m.,



which are typically reserved for relaxation, conversation, reading and television. When the same 24-hour noise data are used, the reported CNEL is typically approximately 0.5 dBA higher than the Ldn.

**SEL (Sound Exposure Level):** The cumulative exposure to sound energy over a stated period of time; typically, the energy of an event, summed into a 1-second period of time.

Community noise is commonly described in terms of the ambient noise level which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent sound level ( $L_{eq}$ ), which corresponds to the steady-state A-weighted sound level containing the same total energy as the time-varying signal over a given time period (usually one hour). The  $L_{eq}$  is the foundation of the composite noise descriptors such as Ldn and CNEL, as defined above, and shows very good correlation with community response to noise. Use of these descriptors along with the maximum noise level occurring during a given time period provides a great deal of information about the ambient noise environment in an area.

### Negative Effects of Noise on Humans

Excessive and chronic exposure to elevated noise levels can result in auditory and non-auditory effects on humans. Auditory effects of noise on people are those related to temporary or permanent hearing loss caused by loud noises. Non-auditory effects of exposure to elevated noise levels are those related to behavioral and physiological effects. The non-auditory behavioral effects of noise on humans are associated primarily with the subjective effects of annoyance, nuisance, and dissatisfaction that lead to interference with activities such as communications, sleep, and learning. The non-auditory physiological health effects of noise on humans have been the subject of considerable research attempting to discover correlations between exposure to elevated noise levels and health problems, such as hypertension and cardiovascular disease. The majority of research infers that noise-related health issues are predominantly the result of behavioral stressors and not a direct noise-induced response. The extent to which noise contributes to non-auditory health effects remains a subject of considerable research, with no definitive conclusions.

The degree to which noise results in annoyance and interference is highly subjective and may be influenced by several non-acoustic factors. The number and effect of these non-acoustic environmental and physical factors vary depending on individual receptor and characteristics of the noise environment such as sensitivity, level of activity, location, time of day, and length of exposure. One key aspect in the prediction of human response to new noise environments is the individual level of adaptation to an existing noise environment. The greater the change in the noise levels that are attributed to a new noise source, relative to the environment an individual has become accustomed to, the less tolerable the new noise source will be to an individual.

Depending on whether a noise source is more sporadic/intermittent (e.g., aircraft overflights, train pass-by, etc.) or more continuous (e.g., busy vehicle traffic), the potential for noise sources to result in negative effects of noise on sleep may be accounted for through the use of average noise level descriptors ( $L_{eq}$ ,  $L_{dn}$  and CNEL), or through energy-based exposure measures like the single event sound exposure level (SEL) or maximum noise level ( $L_{max}$ ). More consistently occurring sound sources can account for the potential for evening and nighttime noise levels through the application of penalties for noise occurring during the evening and nighttime periods (~5 dB penalty from 7:00 p.m. to 10:00 p.m. [CNEL], and a 10 dB penalty from 10:00 p.m. to 7:00 a.m. [ $L_{dn}$  and CNEL]). Historically, research into the correlation between  $L_{dn}$ /CNEL exposure levels has been adopted by the Federal Interagency Committee on Aviation Noise (FICAN/FICON); with more recent research looking to evaluate the correlation between annoyance and the potential for awakening with both average ( $L_{dn}$ /CNEL) and single event noise levels (SEL, SENEL,  $L_{max}$ ).

With respect to how humans perceive and react to changes in noise levels, a one (1) dBA increase is generally imperceptible outside of a laboratory environment, a three (3) dBA increase is barely perceptible, a six (6) dBA increase is clearly noticeable, and a 10-dBA increase is subjectively perceived as approximately twice as loud (Egan 1988). These subjective reactions to changes in noise levels was developed on the basis of test subjects' reactions to changes in the levels of steady-state, pure tones or broad-band noise and to changes in levels of a given noise source. Perception and reaction to changes in noise levels in this manner is thought to be most applicable in the range of 50 to 70 dBA, as this is the usual range of voice and interior noise levels.

## Vibration Fundamentals

Vibration is similar to noise in that it is a pressure wave traveling through an elastic medium involving a periodic oscillation relative to a reference point. Vibration is most commonly described in respect to the excitation of a structure or surface, such as in buildings or the ground. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions, impacts). Vibration levels can be depicted in terms of amplitude and frequency; relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal, or the quantity of displacement measured from peak to trough of the vibration wave. RMS is defined as the positive and negative statistical measure of the magnitude of a varying quantity. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a period of one second. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2018). PPV and RMS vibration velocity are nominally described in terms of inches per second (in/sec). However, as with airborne sound, vibration velocity can also be expressed using decibel notation as vibration decibels (VdB). The logarithmic nature of the decibel serves to compress the broad range of numbers required to describe vibration and allow for the presentation of vibration levels in familiar terms.

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. Human response to vibration has been found to correlate well to average vibration amplitude; therefore, vibration impacts on humans are evaluated in terms of RMS vibration velocity.

Typical outdoor sources of perceptible groundborne vibration include construction equipment, steel-wheeled trains, and vehicles on rough roads. Although the effects of vibration may be imperceptible at low levels, effects may result in detectable vibrations and slight damage to nearby structures at moderate and high levels, respectively. At the elevated levels of vibration, damage to structures is primarily architectural (e.g., loosening and cracking of plaster or stucco coatings) and rarely results in damage to structural components. The range of vibration relevant to this analysis occurs from approximately 60 VdB, which is the typical background vibration-velocity level; to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings (FTA 2018). Table 4.9-2 identifies some common sources of vibration, corresponding VdB levels, and associated human perception and potential for structural damage.

**Table 4.9-2. Typical Levels of Ground-borne Vibration**

| Human/Structural Response  | Velocity Level, VdB<br>(re 1μinch/sec, RMS) | Typical Events (50-foot setback)  |
|--|---|---|
| Threshold, minor cosmetic damage                                 | 100   | Blasting, pile driving, vibratory compaction equipment                  |
| —  | 95  | Heavy tracked vehicles (Bulldozers, cranes, drill rigs)                 |
| Difficulty with tasks such as reading a video or computer screen | 90  | Commuter rail, upper range  |
| Residential annoyance, infrequent events                         | 80  | Rapid transit, upper range  |
| Residential annoyance, occasional events                         | 75  | Commuter rail, typical bus or truck over bump or on rough roads         |
| Residential annoyance, frequent events                           | 72  | Rapid transit, typical  |
| Approximate human threshold of perception to vibration           | 65  | Buses, trucks, and heavy street traffic                                 |
| —  | 60  | Background vibration in residential settings in the absence of activity |
| Lower limit for equipment ultra-sensitive to vibration           | 50  | —   |

Source: FTA 2018.

### Existing Noise Environment

The existing Medical Center campus is located in the southeast portion of the Midtown Neighborhood of the City of Stockton (City) General Plan. The campus is generally bounded by E. Cleveland Street to the north; N. California Street to the west; E. Harding Way to the south; and the San Joaquin Catholic Cemetery (Cemetery Lane) to the east. The area generally to the west of the campus is primarily developed as administrative/professional offices and clinics, with some commercial/food service and low to medium residential uses located farther to the west. County and City facilities, including additional medical clinics, a behavior health center, and a City fire station are located south of E. Harding Way.

The project proposes five (5) phases of development with Phases 1–4 (“Initial Expansion”) to include the following uses: a new Acute Care Hospital Tower, multistory Parking Structure, Central Utility Plant (CUP), expansion of the existing generator building, and other required support facilities within the Medical Center campus boundaries. Phase Five (5) is considered a future phase which may include expansion of the Acute Care Hospital building along with additional parking. The area of disturbance or project area, which includes Phases 1–4 and Phase 5 comprises approximately nine (9) acres and is generally bounded by McCloud Avenue to the north; N. California Street to the west; E. Harding Way to the south; and Cemetery Lane to the east.

There are a number of existing noise sources influencing the ambient noise environment. The most dominant noise source is transportation noise; primarily generated from vehicular traffic on the local roadway network. Additional noise sources experienced in the area include emergency service vehicles associated with the emergency vehicles accessing the campus, City police and fire departments, existing hospital helicopter operations, and occasional airplane overflights.

The existing ambient noise environment was quantified through field surveys, sound level measurements and through the application of accepted reference data and noise prediction methodologies. Separate discussions of identified major noise sources and their respective effects are provided in the following sections.

### Existing Noise-Sensitive Land Uses

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects, as well as uses where quiet is an essential element of the intended purpose. The City of Stockton General Plan identifies residential, schools, health care facilities, libraries, and churches<sup>1</sup> as existing land uses that are potentially noise sensitive. Residential dwellings and other facilities where people are sleeping are a primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels.

Existing noise-sensitive land uses nearest the project area include Stockton Early College Academy located across N. California Street, setback one parcel from N. California Street, at approximately 165 to 170 feet west of the western boundary of the proposed project area. Other noise-sensitive land uses in the vicinity of the project area are single-family and multifamily residences generally located west of N. California Street. Existing outdoor facilities associated with the Medical Center could also be considered noise-sensitive; however, existing outdoor activity areas are being relocated as part of the proposed project. Rooms for admitted patients within the Medical Center would be considered noise sensitive. Existing land uses in the project vicinity are further outlined within Section 2.2 in Chapter 2, Project Description.

### Existing Ambient Noise Survey

Sound level measurements were conducted on February 14, 2022, and from February 28 to March 3, 2022, to document the existing noise environment adjacent to the project area to establish baseline noise conditions against which to compare proposed project noise levels. Specific consideration was given to document noise levels in the vicinity of nearby noise-sensitive receptors, to document existing periodic noise source levels and to document existing Medical Center helicopter noise levels. All noise measurements were performed in accordance with American National Standards Institute (ANSI) and American Standards for Testing and Measurement guidelines, at three locations in proposed project area, as shown on Figure 4.9-1.

Noise measurements were performed using Larson Davis Laboratories Model 831, Type 1 precision integrating sound level meters (SLMs). Field calibrations were performed on the SLMs with an acoustic calibrator before and after the measurements. All instrumentation components, including microphones, preamplifiers and field calibrators have laboratory certified calibrations traceable to the National Institute of Standards and Technology (NIST). The equipment used meets all pertinent specifications of the ANSI for Type 1 SLMs (ANSI S1.4-1983 [R2006]). Meteorological conditions during the monitoring periods were fair with temperatures ranging from 41 °F to 66 °F, light winds from 0 to 7 mph, and partly cloudy skies during the February 10 and 14 short-term monitoring surveys. During the February 28 to March 3, long-term monitoring period temperatures ranged from approximately 41 °F to 76 °F, with winds from 0 to 10 mph, and partly cloudy skies. No precipitation was experienced during the monitoring periods.

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<sup>1</sup> A vacant church (Church of Christ) is located at 2101 N. California Street. When the measurement survey was conducted the church was in disrepair. The doors were noticeably sagging, there was a broken window, siding was missing in several places, the paint was disintegrating and had large sections peeling off, and there was trash collected in different locations on the parcel. The church does not have an active phone number or contact information listed anywhere on the physical location or online. The denomination website provides some information on the leader of the church; however, the phone number listed appears to no longer be associated with the leader, and several references were discovered indicating the passing of the leader in 2016. The last building permit filed for the building appears to be in 1992. Therefore, this is not considered an existing noise-sensitive land use.

Long-term noise monitoring (24-hour) was performed at one location in the project area, from February 28, 2022, to March 3, 2022, adjacent to the nearby noise-sensitive receptors located to the west of N. California Street at 2031 N. California Street.<sup>2,3</sup> The long-term noise monitoring equipment was configured to operate in a continuous manner, cataloging all noise metrics pertinent to identification and evaluation of noise levels (i.e., Leq, Lmax, Ln, etc.) in the project vicinity. Ambient noise levels recorded at the long-term noise monitoring locations are presented in Table 4.9-3 and shown in Figure 4.9-1.

**Table 4.9-3. Summary of Long-Term Ambient Noise Measurements**

| Site | Location                                  | Ldn               | Average Noise Levels (dBA) |      |      |      |           |      |      |      |
|------|---|-------------------|----------------------------|------|------|------|-----------|------|------|------|
|      |   |                   | Daytime                    |      |      |      | Nighttime |      |      |      |
|      |   |                   | Leq                        | Lmax | L50  | L90  | Leq       | Lmax | L50  | L90  |
| LT-1 | Western portion of 2031 N. California St. | 62.8              | 59.8                       | 76.5 | 56.1 | 48.9 | 55.4      | 72.3 | 49.2 | 47.1 |
|      |   | 62.6              | 58.6                       | 75.2 | 56.1 | 48.7 | 55.6      | 73.6 | 48.9 | 46.6 |
|      |   | 62.0 <sup>1</sup> | —                          | —    | —    | —    | 50.0      | 66.3 | 44.6 | 42.4 |

**Source:** Appendix K.

**Notes:** dBA = A-weighted decibels; Ldn = Day Night noise level; Leq = average equivalent noise level; Lmax = maximum noise level; L50 = sound level exceeded 50% of the period; L90 = sound level exceeded 90% of the period.

<sup>1</sup> Long-term monitoring was concluded at 8:00 a.m., so daytime noise levels for March 3, 2022 are unavailable and as a result Ldn is slightly below expectations. Inclusion of additional daytime hours would have elevated Ldn values slightly, similar to previous 24-hour periods.

The primary noise source affecting the long-term noise monitoring location was vehicular traffic on the local roadway network. Additional noise sources experienced during noise-monitoring included emergency vehicles, pedestrians, general landscaping activities, aircraft overflight, and a barking dog. Ambient noise level exposure at the long-term monitoring location was dependent on the relative distance from nearby roadways to noise measurement locations and shielding provided by nearby existing structures. During the long-term noise monitoring, average day-night (Ldn) noise levels ranged from approximately 62 to 63 dBA Ldn. The existing ambient noise levels at the long-term monitoring location was found to exceed the City's "normally acceptable" maximum allowable noise exposure for residential land uses.

Short-term noise monitoring was conducted at four (4) locations to characterize noise levels generated from helicopters at the hospital and to provide additional insight into the existing ambient noise environment, as shown on Figure 4.9-1. To identify noise associated with helicopters, a helicopter flew over the Medical Center campus on February 10, 2022 to simulate project-related noise conditions and to measure noise levels. Short-term noise monitoring performed at sites ST-1 and ST-2 documented helicopter noise levels. Site ST-1 was located approximately 500 feet east of the existing heliport, under the typical eastern flight path over the San Joaquin Catholic Cemetery. Site ST-2 was located approximately 500 feet west of the heliport, west of N. California Street at the approximate setback distance of the existing noise-sensitive receptors west of the proposed project area. Short-term monitoring at locations ST-3 and ST-4 included concurrent manual traffic counts and vehicle

<sup>2</sup> This parcel was selected because it is representative of the residential setback distance of the nearest sensitive land use to the project site. This parcel is not developed and is designated and zoned for an administrative/professional use, which is not considered a noise-sensitive land use. However, adjacent to this site is 447 E. Hawthorne Street and other residential parcels at the same setback distance to the project site.

<sup>3</sup> The City's zoning map was reviewed prior to the ambient noise survey and the delineation between parcels with the Office Commercial zoning and the Medium Density Residential zoning was noted. When in the field to perform the ambient noise survey, the undeveloped parcel (2031 N. California Street) adjacent to existing residences was identified as a good candidate for the long-term measurement location due to the shared property boundary with a residential receptor, security, and exposure to N. California Street and other sources of noise in the area.

classification during the measurement periods to aid in quantifying traffic noise levels. Monitoring equipment was configured to catalog pertinent noise metrics as identified above. Ambient noise level data cataloged at the short-term monitoring locations is presented in Table 4.9-4 and also shown on Figure 4.9-1.

**Table 4.9-4. Summary of Short-Term Ambient Noise Measurements**

| Site | Location   | Date/Time              | Average Noise Levels (dBA) |                  |                 |                 |
|------|--|------------------------|----------------------------|------------------|-----------------|-----------------|
|      |  |                        | Leq                        | L <sub>max</sub> | L <sub>50</sub> | L <sub>90</sub> |
| ST-1 | San Joaquin Catholic Cemetery, approximately 500 feet east of heliport, under approach flightpath (82 second duration) | 02/10/22<br>11:40 a.m. | 83.1                       | 91.1             | 78.0            | 77.6            |
| ST-2 | 500 feet west of heliport, at approximate setback distance of residential (56 second duration)                         | 02/10/22<br>11:41 a.m. | 67.4                       | 70.5             | 66.6            | 59.4            |
| ST-3 | 2130 N. California St.<br>50 feet from Centerline  | 02/14/22<br>3:07 p.m.  | 67.4                       | 75.2             | 65.7            | 58.0            |
| ST-4 | Southern Boundary of San Joaquin Catholic Cemetery – 60 feet from E. Harding Way Centerline                            | 02/14/22<br>3:29 p.m.  | 61.3                       | 79.8             | 57.0            | 55.8            |

**Source:** Dudek 2022.

**Notes:** dBA = A-weighted decibels; L<sub>dn</sub> = Day Night noise level; L<sub>eq</sub> = average equivalent noise level; L<sub>max</sub> = maximum noise level; L<sub>50</sub> = sound level exceeded 50% of the period; L<sub>90</sub> = sound level exceeded 90% of the period.

- <sup>1</sup> Short-term measurements at ST-1 and ST-2 were performed for the duration where the helicopter was audible above the ambient.
- <sup>2</sup> Short-term measurements at ST-3 and ST-4 were performed for a duration 15-minutes.

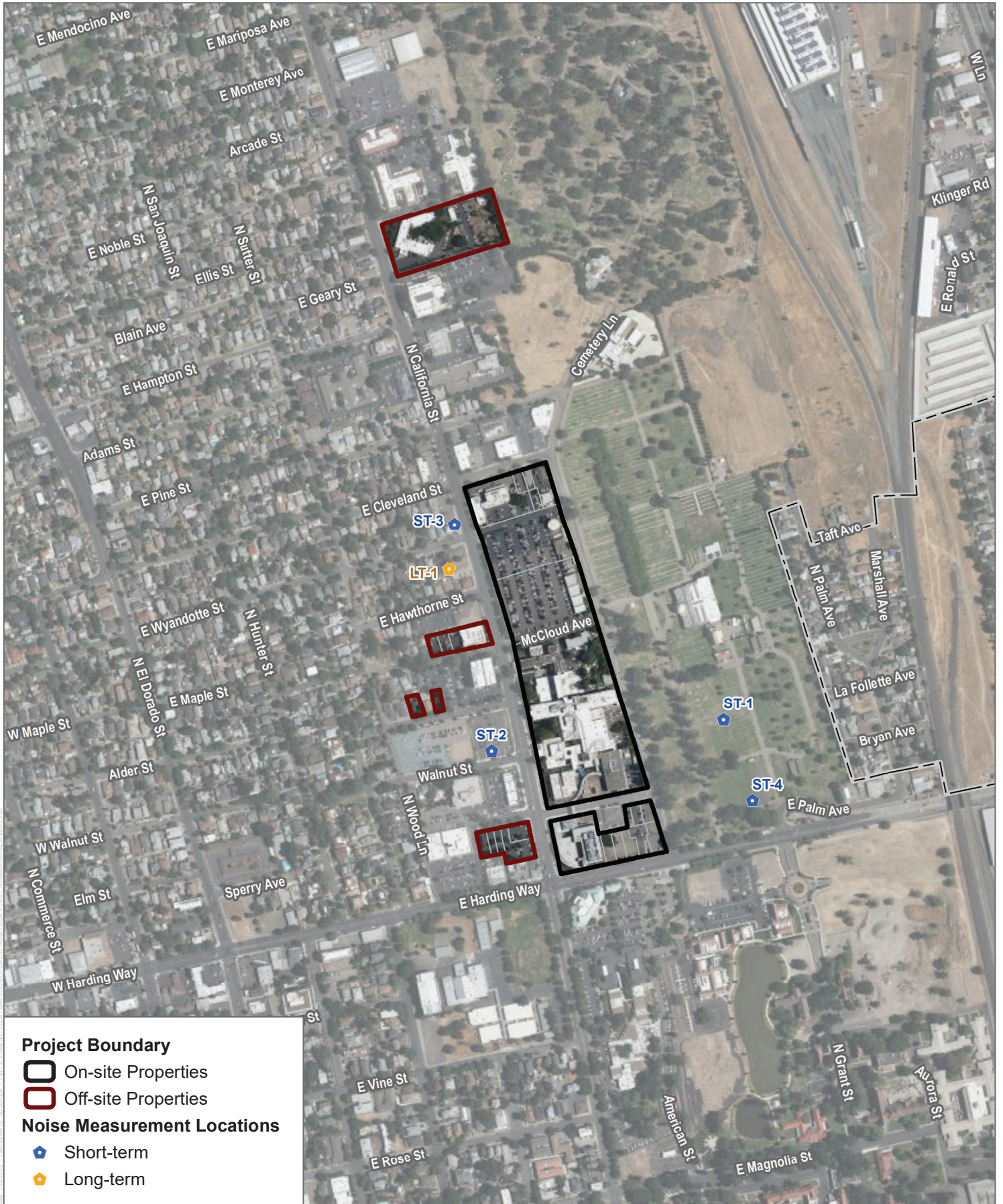
Short-term noise level monitoring to quantify the existing Medical Center helicopter operations at site ST-1 cataloged a Reach Air Medical Services helicopter approaching from the east and directly over the measurement site to land on the existing heliport, with an average level of 83.1 dBA L<sub>eq</sub>, and had a maximum level of 91.1 dBA L<sub>max</sub> during the approximate 82 seconds where the helicopter was audible above the background ambient levels. At the approximate setback distance of the nearest noise-sensitive receptors to the west of the proposed project heliport(s) (approximately 500 feet from the center of the heliport), measurement site ST-2 experienced an average noise level of 67.4 dBA L<sub>eq</sub> and a maximum level of 70.5 dBA L<sub>max</sub> during for the approximate 56 seconds where the helicopter was audible above the background ambient levels.

Short-term traffic noise levels measured at locations ST-3 and ST-4 experienced average noise levels ranging from approximately 39 to 72 dBA L<sub>eq</sub>, with background ambient (L<sub>90</sub>) noise levels ranging from approximately 37 to 62 dBA L<sub>90</sub> and maximum noise levels from 45 to 81 dBA L<sub>max</sub>.<sup>4</sup>

<sup>4</sup> Note: Noise monitoring was not required in the neighborhood to the east of the cemetery because this area is twice the distance to the project site from the residences to the west and would not be affected by construction or operational noise.



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SOURCE: Bing Imagery 2021; Open Street Map 2020; County of San Joaquin 2019

FIGURE 4.9-1

Noise Monitoring Locations

St. Joseph's Medical Center of Stockton Hospital Expansion Project

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## Existing Traffic Noise

Existing traffic noise levels were modeled for roadway segments in the project vicinity based on the Federal Highway Administration (FHWA) Highway Traffic Noise Model (TNM) prediction methodologies (FHWA 2004), and traffic data provided in the traffic impact study prepared for the project (TJKM 2020).<sup>5</sup> The FHWA TNM incorporates state-of-the-art sound emissions and sound propagation algorithms, based on well-established theory and accepted international standards. The acoustical algorithms contained within the FHWA TNM have been validated with respect to carefully conducted noise measurement programs and show excellent agreement in most cases for sites with and without noise barriers. The noise modeling accounted for factors such as vehicle volume, speed, vehicle type, roadway configuration, distance to the receiver, and propagation over different types of ground (acoustically soft and hard ground).

Modeled existing traffic noise levels are summarized in Table 4.9-5, within the outdoor activity area of a noise-sensitive receptor in proximity to the respective roadway segment, and at the setback distance to the building façade of the existing Women’s & Children’s Pavilion. The extent to which existing land uses in the project vicinity are affected by existing traffic noise depends on their respective proximity to the roadways, shielding provided by intervening objects and their individual sensitivity to noise. As shown in Table 4.9-5, existing traffic noise levels within outdoor activity areas of noise-sensitive land uses adjacent to major roadway segments in the project vicinity ranged from approximately 47 to 64 dBA Ldn. The existing traffic noise levels at the outdoor activity area of the residences along E. Harding Way between Hunter Street and N. California Street would be within the City’s General Plan “Conditionally Acceptable” maximum allowable noise level standards. Existing traffic noise levels at the setback distance of the building façade of the Women’s & Children’s Pavilion were modeled to be approximately 70 dBA Ldn. Refer to Appendix K for complete modeling inputs and results.

**Table 4.9-5. Summary of Modeled Existing Traffic Noise Levels**

| Roadway              | Segment  | ADT    | Distance from Roadway to Receiver, feet | Noise Level, dBA Ldn |
|----------------------|--|--------|---|----------------------|
| N. California Street | Between Hawthorne Street and McCloud Avenue    | 14,764 | 136                                     | 59.5                 |
| N. California Street | Between Alpine Avenue and Cleveland Street     | 15,578 | 136                                     | 59.7                 |
| Cemetery Lane        | North of Maple Street                          | 1,190  | 94                                      | 47.4                 |
| E. Harding Way       | Between Hunter Street and N. California Street | 19,072 | 85                                      | 63.9                 |
| E. Harding Way       | Between N. California Street and Palm Avenue   | 20,016 | 52                                      | 69.7                 |

**Source:** Dudek 2022.

**Notes:** dBA = A-weighted decibels; Ldn = average day–night noise level.

ADT = Average Daily Traffic Volumes. ADT volumes based on data provided by the project traffic consultant. Not accounting for shielding provided by natural or man-made intervening objects.

<sup>5</sup> Note: different locations were selected so that the most sensitive land use was monitored depending on the noise source (i.e., traffic, helicopter, construction, parking structure).

### Existing Aircraft Operations

The campus is located approximately 5.3 miles south of Stockton Municipal Airport and is not located within the currently adopted 60 or 65 dB CNEL\Ldn noise contours of the Airport Land Use Compatibility Plan for the Stockton Municipal Airport Land Use Commission (Coffman Associates 2016). During the long-term ambient noise monitoring survey, one aircraft over-flight was documented. While specific information about the aircraft was unavailable, the aircraft appeared to be a private general aviation single-propeller aircraft. Existing helicopter operations are discussed separately below.

### Existing Helicopter Operations

The Medical Center currently operates a heliport located atop the existing southeast wing of the existing hospital building. All existing heliport operations are unscheduled flights, generally for the outgoing transfer of patients being relocated to other medical centers capable of providing a higher level of care or more specialized care, or for organ transfer to and from other facilities. The heliport currently experiences approximately 10 flight operations per month on average, with 225 flights occurring in the 24-month period prior to October 31, 2022. Helicopter flights currently use the airspace to the east of the Medical Center, over the San Joaquin Catholic Cemetery. Medical Center staff familiar with the current helicopter operations have indicated that there have been no community complaints received in respect to helicopter noise (AIRSAFE 2021, Pers. Comm. Brewer 2022). The existing heliport is approximately 200 feet west of the San Joaquin Catholic Cemetery property line and 715 feet east of the nearest off-site noise-sensitive receptor, a residence located at 412 Walnut Street (i.e., closest to the existing heliport).

As mentioned in the Existing Ambient Noise Survey section, existing helicopter operations were measured at two (2) locations, directly east and west of the existing heliport. Measurement location ST-1 was approximately 500 feet east of the existing heliport, under the typical eastern flight path over the San Joaquin Catholic Cemetery, with the helicopter slowly descending from approximately 300 feet above ground level to the heliport. The helicopter noise levels at location ST-1 were notable above the ambient background levels for an approximate duration of 82 seconds. Under the approach flightpath, ST-1 was exposed to an average level of 83.1 dBA Leq and a maximum level of 91.1 dBA L<sub>max</sub>. Location ST-2 was at the approximate setback distance of the nearest residences to the west of the proposed project heliport location. The helicopter noise levels at location ST-2 were notable above the ambient background levels for an approximate duration of 56 seconds, with an exposure to an average noise level of 67.4 dBA Leq and a maximum level of 70.5 dBA L<sub>max</sub>.

### Existing Vibration

The existing vibration environment, similar to that of the noise environment, is dominated by transportation-related vibration from roadways adjacent to the proposed project area. Heavy truck traffic can generate groundborne vibration, which varies considerably depending on vehicle type, weight, and pavement conditions. However, groundborne vibration levels generated from vehicular traffic are not typically perceptible outside of the roadway right-of-way.

## 4.9.3 Regulatory Setting

Various private and public agencies have established noise guidelines and standards to protect the public from potential hearing damage and other adverse physiological and sociological effects associated with noise. Applicable standards and guidelines are described below.

## Federal Regulations

### Federal Noise Control Act of 1972

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. After its inception, the EPA's Office of Noise Abatement and Control issued the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, noise control guidelines and regulations contained in the EPA rulings in prior years are still adhered to by designated federal agencies where relevant. No federal noise regulations are applicable to the proposed project.

### Federal Transit Administration

The FTA Transit Noise and Vibration Impact Assessment guidance manual recommends a daytime construction noise level threshold of 80 dBA  $L_{eq}$  over an 8-hour period (FTA 2018) when "detailed" construction noise assessments are performed to evaluate potential impacts to community residences surrounding a project. Although this FTA guidance is not a regulation, it can serve as a quantified standard in the absence of such limits at the state and local jurisdictional levels.

## State Regulations

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation.

### California Code of Regulations, Title 24

Title 24, also known as the California Building Standards Code, establishes building standards applicable to all occupancies throughout the state. The current 2022 code provides acoustical regulations for both exterior-to-interior sound insulation as well as sound and impact isolation between adjacent spaces of various occupied units. Title 24 regulations state that interior noise levels generated by exterior noise sources shall not exceed 45 dBA  $L_{dn}$ , with windows closed, in any habitable room for general residential uses. These regulations are applicable to the proposed project.

### Governor's Office of Planning and Research

The Governor's Office of Planning and Research published the State of California General Plan Guidelines (OPR 2003), which provides the most recent guidance for the acceptability of projects within specific day-night average noise level ( $L_{dn}$ ) contours. Table 4.9-6 summarizes acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to help craft noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

Generally, residential uses (e.g., single-family homes, mobile homes, etc.) are considered to be acceptable in areas where exterior noise levels do not exceed 60 dBA  $L_{dn}$ . Residential uses are normally unacceptable in areas exceeding 70 dBA  $L_{dn}$  and conditionally acceptable within 55 to 70 dBA  $L_{dn}$ . Schools are normally acceptable in



areas up to 70 dBA  $L_{dn}$  and normally unacceptable in areas exceeding 70 dBA  $L_{dn}$ . Commercial uses are normally acceptable in areas up to 70 dBA  $L_{dn}$ . Between 67.5 and 77.5 dBA  $L_{dn}$ , commercial uses are conditionally acceptable, depending on the noise insulation features and the noise reduction requirements.

**Table 4.9-6. Summary of Land-Use Noise Compatibility Guidelines**

| Land Use Category  | Community Noise Exposure (dBA Ldn) |                                       |                                    |                                   |
|--|------------------------------------|---------------------------------------|------------------------------------|-----------------------------------|
|  | Normally Acceptable <sup>1</sup>   | Conditionally Acceptable <sup>2</sup> | Normally Unacceptable <sup>3</sup> | Clearly Unacceptable <sup>4</sup> |
| Residential—Low-Density Single-Family, Duplex, Mobile Home | <60                                | 55–70                                 | 70–75                              | 75+                               |
| Residential—Multifamily                                    | <65                                | 60–70                                 | 70–75                              | 75+                               |
| Transient Lodging—Motel, Hotel                             | <65                                | 60–70                                 | 70–80                              | 80+                               |
| Schools, Libraries, Churches, Hospitals, Nursing Homes     | <70                                | 60–70                                 | 70–80                              | 80+                               |
| Auditoriums, Concert Halls, Amphitheaters                  | —                                  | <70                                   | 65+                                | —                                 |
| Sports Arena, Outdoor Spectator Sports                     | —                                  | <75                                   | 70+                                | —                                 |
| Playgrounds, Neighborhood Parks                            | <70                                | —                                     | 67.5–75                            | 72.5+                             |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries | <75                                | —                                     | 70–80                              | 80+                               |
| Office Building, Business Commercial, and Professional     | <70                                | 67.5–77.5                             | 75+                                | —                                 |
| Industrial, Manufacturing, Utilities, Agriculture          | <75                                | 70–80                                 | 75+                                | —                                 |

**Source:** OPR 2003.

**Notes:** dBA = A-weighted decibels; Ldn = day-night average noise level

- 1 Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
- 2 New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
- 3 New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.
- 4 New construction or development should generally not be undertaken.

## California Department of Transportation – Vibration

There are no state standards or regulations for vibration; however, the California Department of Transportation (Caltrans) has developed a compendium of research to use as the basis for recommendations that can serve as a quantified standard in the absence of such limits at the local jurisdictional level. In the Transportation and Construction Vibration Guidance Manual, Caltrans recommends a vibration velocity threshold of 0.2 in/sec PPV for assessing “annoying” vibration impacts to occupants of residential structures. For the protection from structural damage Caltrans recommends a threshold of 0.3 in/sec PPV for older residential structures and 0.25 in/sec PPV for historic building and some old buildings (Caltrans 2020).

## Local Regulations

Local noise standards contained in the Envision Stockton 2040 General Plan and the Stockton Municipal Code are described below. See also Chapter 3, Land Use and Planning for an evaluation of environmental impacts due to conflicts with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### Envision Stockton 2040 General Plan

Applicable noise standards in the City's 2040 General Plan are contained within Chapter 5, Safety. The Safety chapter contains specific policies and actions for use in planning and land use compatibility determinations within the City. The following goals, policies and actions are relevant to the proposed project.

Goal SAF-2. Hazard Protection. Protect residents and businesses from natural and human-caused hazards.

Policy SAF-2.5. Protect the community from health hazards and annoyance associated with excessive noise levels.

Action SAF-2.5A. Prohibit new commercial, industrial, or other noise-generating land uses adjacent to existing sensitive noise receptors such as residential uses, schools, health care facilities, libraries, and churches if noise levels are expected to exceed 70 dBA Community Noise Equivalent (CNEL) (decibels on A-weighted scale CNEL) when measured at the property line of the noise sensitive land use.

Action SAF-2.5B. Require projects that would locate noise sensitive land uses where the projected ambient noise level is greater than the "normally acceptable" noise level indicated on Table 5-1 (Table 4.9-7 of this report) to provide an acoustical analysis that shall:

- Be the responsibility of the applicant;
- Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics;
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions;
- Estimate existing and projected (20-year) noise levels in terms of L<sub>dn</sub>/CNEL and compare the levels to the adopted noise policies and actions in this General Plan;
- Recommend appropriate mitigation to achieve compatibility with the adopted noise policies and standards;
- Where the noise source in question consists of intermittent single events, address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance;
- Estimate noise exposure after the prescribed mitigation measures have been implemented;
- If the project does not comply with the adopted standards and policies of this General Plan, provide acoustical information for a statement of overriding considerations for the project; and
- Describe a post-project assessment program, which could be used to evaluate the effectiveness of the proposed mitigation measures.

Action SAF-2.5C. Require noise produced by commercial uses to not exceed 75 dB L<sub>dn</sub>/CNEL at the nearest property line.

Action SAF-2.5D. Grant exceptions to the noise standards for commercial and industrial uses only if a recorded noise easement is conveyed by the affected property owners.

Action SAF-2.5E. Require all new habitable structures to be set back from railroad tracks to protect residents from noise, vibration, and safety impacts.

**Table 4.9-7. Maximum Allowable Noise Exposure by Land Use**

| Noise Level, L <sub>DN</sub> (l)                                  |   |                          |                     |                          |                          |              |              |
|---|---|--------------------------|---------------------|--------------------------|--------------------------|--------------|--------------|
| Land Use Type   | 0-55  | 56-60                    | 61-65               | 66-70                    | 71-75                    | 75-80        | >81          |
| Residential   |   |                          | Normally Acceptable |                          | Unacceptable             |              |              |
| Urban Residential Infill  |   |                          |                     |                          | Conditionally Acceptable |              | Unacceptable |
| Hotels, Motels  |   |                          | Normally Acceptable |                          | Conditionally Acceptable | Unacceptable |              |
| Schools, Libraries, Churches, Hospitals, Extended Care Facilities |   |                          | Normally Acceptable |                          | Unacceptable             |              |              |
| Auditoriums, Concert Halls, Amphitheaters                         | Conditionally Acceptable  | Conditionally Acceptable | Normally Acceptable |                          | Unacceptable             |              |              |
| Sports Arenas, Outdoor Spectator Sports                           |   | Normally Acceptable      |                     |                          | Conditionally Acceptable | Unacceptable |              |
| Playgrounds, Neighborhood Parks                                   | Normally Acceptable   |                          |                     |                          | Unacceptable             |              |              |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries        | Normally Acceptable   |                          |                     | Conditionally Acceptable | Conditionally Acceptable |              | Unacceptable |
| Office Buildings, Business Commercial and Professional            | Normally Acceptable   |                          |                     | Conditionally Acceptable | Conditionally Acceptable | Unacceptable |              |
| Mining, Industrial, Manufacturing, Utilities, Agriculture         | Normally Acceptable   |                          |                     |                          | Conditionally Acceptable |              | Unacceptable |
|   | <b>Normally Acceptable.</b> Specified land use is satisfactory based on the assumption that any buildings involved are of normal, conventional construction, without any special noise insulation requirements.                   |                          |                     |                          |                          |              |              |
|   | <b>Conditionally Acceptable.</b> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design. |                          |                     |                          |                          |              |              |
|   | <b>Unacceptable.</b> New construction or development should not be undertaken.  |                          |                     |                          |                          |              |              |

**Source:** Envision Stockton 2040 General Plan, 2018; Table 5-1.

**Notes:** If existing noise standards are currently exceeded, a proposed project shall not incrementally increase noise levels by more than 3 dBA. Urban residential infill applies to residential uses in the Greater Downtown.

### City of Stockton Municipal Code

The Stockton Municipal Code serves to further protect the welfare and the peace and quiet of the community through the establishment of both objective and subjective methods for determining non-compliance with the City’s noise standards and regulations. The City has enumerated noise regulation for the protection of the public health, comfort, convenience, safety, welfare, prosperity, peace and quiet of the City and its inhabitants, in Title 8, Health and Safety, Chapter 8.20, Noise Regulations, which are subjective in nature and not able to be used in quantitative analysis. Additionally, Title 16, Development Code, Chapter 16.60, Noise Standards, serves to reinforce the regulations of Chapter 8.20, provide noise standards to facilitate compliance with State noise standards, and to

consolidate and/or reference all applicable City noise regulations” (City of Stockton 2018). Portions of the City’s Development Code which are applicable to the proposed project are also provided below.

#### 16.60.020 Activities exempt from noise regulations.

The following activities relevant to the project shall be exempt from the provisions of this chapter:

- A. **Emergency Exemption.** The emission of sound for the purpose of alerting persons to the existence of an emergency, or the emission of sound in the performance of emergency work.
- B. **Warning Device.** Warning devices necessary for the protection of public safety, (e.g., police, fire and ambulance sirens, properly operating home and car burglar alarms, and train horns).
- E. **State or Federal Pre-Exempted Activities.** Any activity, to the extent the regulation of it has been preempted by State or Federal law.
- H. **Stationary Emergency Generators.** Sound resulting from the operation of any stationary emergency generator in any zoning district shall be considered restoration of electrical service and are exempt from the sound rating values set forth in Section 16.60.040, Table 3-7 (Maximum Allowable Noise Exposure for Noise-Sensitive Land Uses) (Table 4.9-7 of this EIR) but subject to the standards in this section. This exemption only applies when generators are operated during an emergency situation as defined herein.

#### 1 Definitions.

- a. Stationary emergency generator is defined as any stationary or nonportable internal combustion engine located in any zoning district that serves solely as a secondary source of mechanical or electrical power when the primary source is disrupted or discontinued during a period of emergency due to a situation beyond the control of the owner. A stationary emergency generator that serves as an energy or power source in circumstances other than emergency situations or for standard testing, such as load shedding or peak shaving, shall not be considered a stationary emergency generator.
- b. Emergency situation is defined as loss of primary power due to power outage, on site disaster, area-wide natural disaster, or circumstances beyond the control of the owner/operator. An emergency situation shall not include power interruptions pursuant to an interruptible power service agreement, engine testing or scheduled maintenance.

#### 2 Standards.

- a. A stationary emergency generator shall be located in conformance with Table 3-13<sup>6</sup>.
- b. A stationary emergency generator shall operate only during emergency situations or for standard performance testing procedures as required by law or by the engine manufacturer.
- c. All stationary emergency generators shall be enclosed in a sound absorbing encasement and in no event shall the sound rating value of generators in any district exceed 76 L<sub>max</sub> dBA at 23 feet.
- d. Stationary emergency generators may be operated for testing purposes one time for a period not to exceed 30 minutes in any seven (7) day period. Testing of stationary

<sup>6</sup> Table 3-13 of the City Code establishes minimum setback distances for generators and does not pertain to the evaluation of generator noise; therefore, it is not reproduced herein.

emergency generators is permitted between the hours of 7:00 a.m. through 10:00 p.m. Monday through Saturday. (Ord. 2020-06-09-1501 C.S. § 15; prior code § 16-340.030)

16.60.030 Activities deemed violations of this chapter.

The following acts are a violation of this chapter and are therefore prohibited.

- A. **Construction Noise.** Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.
- B. **Loading and Unloading Operations.** Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects on private property between the hours of 10:00 p.m. and 7:00 a.m. in a manner to cause a noise disturbance.
- C. **Public Nuisance Noise.** Public nuisance noise is noise that is generally not associated with a particular land use but creates a nuisance situation by reason of its being disturbing, excessive, or offensive. Examples would include excessively loud noise from alarms, animals, horns, musical instruments, stereos, tape players, televisions, vehicle or motorboat repairs and testing, and similar noise as required by Chapter 8.20 and Sections 9.40.040 and 9.40.050 of the Municipal Code.
- D. **Stationary Nonemergency Signaling Devices.** Sounding or allowing the sounding of an electronically amplified signal from a stationary bell, chime, siren, whistle, or similar device intended primarily for nonemergency purposes, from private property for more than 10 consecutive seconds in any hourly period as required by Section 8.20.030(B) of the Municipal Code.
- E. **Refuse Collection Vehicles.**
  - 1. Operating or allowing the operation of the compacting mechanism of any motor vehicle that compacts refuse and that creates, during the compacting cycle, a sound level in excess of 85 dBA when measured at 50 feet from any point of the vehicle.
  - 2. Collecting refuse, or operating or allowing the operation of the compacting mechanism of any motor vehicle that compacts refuse in a residential zoning district between the hours of 5:00 p.m. and 5:00 a.m. the following day.
- F. **Sweepers and Associated Equipment.** Operating or allowing the operation of sweepers or associated sweeping equipment (e.g., blowers) on private property between the hours of 10:00 p.m. and 7:00 a.m. the following day in, or adjacent to, a residential zoning district.

16.60.040 Standards.

The following provisions shall apply to all uses and properties, as described below, and shall establish the City's standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses and transportation-related sources:

- A. **Standards For Proposed Noise-Sensitive Land Uses on Noise-Impacted Sites (Except Infill Areas).** Excluding proposed noise-sensitive land uses on infill sites, which shall comply with subsection C of this section:
  - 1 **Existing Transportation-Related Noise Sources.** Proposed noise sensitive land uses that will be impacted by existing or projected transportation noise sources shall be required to mitigate the noise levels from these transportation noise sources so that the resulting

noise levels on the proposed noise-sensitive land use(s) do not exceed the standards in Table 3-7, Part I (Table 4.9-8 of this report).

- 2 **Existing Land Use-Related Noise Sources.** Proposed noise sensitive land uses that will be impacted by existing land use-related noise sources shall be required to mitigate the noise levels from those noise sources so that the resulting noise levels on the proposed noise-sensitive land use(s) do not exceed the standards in Table 3-7, Part II (Table 4.9-8 of this EIR).

**B. Standards for Proposed Noise-Generating Land Uses and Transportation-Related Sources.** Excluding noise-generating projects on infill sites, which shall comply with subsection C of this section, the following shall apply:

- 1 **Transportation-Related Noise Sources (Except Infill Sites).** Transportation-related projects that include the development of new transportation facilities or the expansion of existing transportation facilities shall be required to mitigate their noise levels so that the resulting noise:
  - a. Does not adversely impact noise-sensitive land uses; and
  - b. Does not exceed the standards in Table 3-7, Part I (Table 4.9-8 of this report).

Noise levels shall be measured at the property line of the nearest site, which is occupied by, and/or zoned or designated to allow the development of, noise-sensitive land uses.

**Table 4.9-8. Maximum Allowable Noise Exposure for Noise-Sensitive Land Uses**

| Part I: Transportation-Related Noise Standards |  |               |
|--|--|---------------|
| Noise-Sensitive Land Use Type                  | Maximum Allowable Noise Exposure (L <sub>dn</sub> dBA) |               |
|  | Outdoor Activity Areas                                 | Indoor Spaces |
| Residential (all types)                        | 65   | 45            |
| Child care                                     | —  | 45            |
| Educational facilities                         | —  | 45            |
| Libraries and museums                          | —  | 45            |
| Live-work facilities                           | 65   | 45            |
| Lodging  | 65   | 45            |
| Medical services                               | —  | 45            |
| Multi-use (with residential)                   | 65   | 45            |

| Part II: Land Use-Related Noise Standard              |                                  |                                    |
|---|----------------------------------|------------------------------------|
| Noise Level Descriptor                                | Outdoor Activity Areas           |                                    |
|   | Day<br>(7:00 a.m. to 10:00 p.m.) | Night<br>(10:00 p.m. to 7:00 a.m.) |
| Hourly equivalent sound level (L <sub>eq</sub> ), dBA | 55                               | 45                                 |
| Maximum sound level (L <sub>max</sub> ), dBA          | 75                               | 65                                 |

**Source:** City of Stockton Code Section 16.60, Noise Standards, Table 3-7 2022.



**Notes:**

1. The noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.
2. Each of the noise level standards specified shall be decreased by five (5) for impulse noise, simple tone noise, or noise consisting primarily of speech or music.

## 2 Commercial, Industrial, and Other Land Use-Related Noise Sources (Except Infill Sites).

- a New and Expanded Noise Sources. Land use-related projects that will create new noise sources or expand existing noise sources shall be required to mitigate their noise levels so that the resulting noise:
  - i. Does not adversely impact noise-sensitive land uses; and
  - ii. Does not exceed the standards specified in Table 3-7, Part II (Table 4.9-8 of this report).

Noise levels shall be measured at the property line of the nearest site which is occupied by, zoned for, and/or designated on the City's General Plan Diagram to allow the development of, noise-sensitive land uses.

### b Maximum Sound Level.

#### i Commercial.

- (A) The maximum sound level (L<sub>max</sub>) produced by commercial land uses or by other permitted noise-generating activities on any retail commercial zoning district (i.e., CO, CN, CG, CD, CL, or CA districts) shall not exceed 75 dB; and
- (B) The hourly equivalent sound level (Leq) from these land uses shall not exceed 65 dB during daytime or nighttime hours as measured at the property line of any other adjoining retail commercial zoning district (CO, CN, CG, CD, CL, or CA districts).

#### ii Industrial.

- (A) The maximum sound level (L<sub>max</sub>) produced by industrial land uses or by other permitted noise-generating activities on any industrial (IL, IG, or PT) or public facilities (PF) zoning district shall not exceed 80 dB; and
- (B) The hourly equivalent sound level (Leq) from these land uses shall not exceed 70 dB during daytime or nighttime hours as measured at the property line of any other adjoining IL, IG, PT, or PF district;
- (C) Where industrial or public facilities uses abut a retail commercial use or zone, the maximum noise levels shall not exceed the above-listed standards for commercial uses and zones (i.e., L<sub>max</sub> = 75 dB and Leq = 65 dB).

- c **Adjacent to Other Uses.** If commercial, industrial, or public facilities land uses are adjacent to any noise-sensitive land uses or vacant residential (RE, RL, RM, or RH) or open space (OS) zoning districts, these uses shall comply with the performance standards contained in Table 3-7, Part II (Table 4.9-8 of this report).

## C Standards for Infill Sites.

- 1 **Noise-Sensitive Land Uses on Noise-Impacted Infill Sites.** Noise-sensitive land uses which are approved for development or expansion on noise-impacted infill sites shall only be required to mitigate the existing and projected noise levels from those sources so that the resulting noise levels within the interior of the noise-sensitive land uses do not exceed the indoor space standards in Table 3-7, Part II (Table 4.9-8 of this report).

- 2 **Noise-Generating Land Uses Impacting Noise-Sensitive Infill Sites.** Noise generating land uses and transportation-related projects, which are approved for development or expansion in the vicinity of existing noise-sensitive infill sites, shall be required to mitigate:
- a. Exterior noise levels (measured at the property line nearest the noise source) so that the ambient noise levels at the time of development and the maximum exterior noise standards for commercially and industrially-zoned properties are not exceeded; and
  - b. Interior noise levels (measured at least four (4) feet from the interior side of the wall nearest the noise source) so that the resulting noise levels within the interior of any impacted noise-sensitive land uses do not exceed the interior space standards in Table 3-7 (Table 4.9-8 of this report). (Ord. 023-07 C.S. § 41; prior code § 16-340.040)

#### 16.60.050 Acoustical study.

The Director or other Review Authority, as applicable, shall require the preparation of an acoustical study in instances where it has been determined that a project may expose existing or proposed noise-sensitive land uses to noise levels exceeding the noise standards specified above and in Table 3-7 (Table 4.9-8 of this report). This determination shall be based on the existing and future 65 dB L<sub>dn</sub> transportation-related noise contours contained in the noise section of the City's General Plan Background Document, the proximity of new noise-sensitive land uses to known noise sources, and/or the knowledge that a potential for adverse noise impacts exists (e.g., as determined in an environmental document prepared in compliance with the California Environmental Quality Act). The study shall be paid for by the project applicant and shall be prepared by a qualified acoustical consultant, as determined by, and under the supervision of, the applicable City Review Authority. At a minimum, the acoustical study shall include the following:

- A **Project and Site Description.** A general description of the project's physical and operational characteristics and of the site's location, physical features, and land use setting (including appropriately scaled maps);
- B **Identification of Noise Sources.** Identification of the noise sources from the project and from the area surrounding the site;
- C **Description of Noise Assessment Methodology.** A description of the methodology that will be used to assess noise impacts, including a listing of all assumptions and data used in any computer models:
  - 1 Computer models that will be used for noise predictions shall be standard versions approved by the Federal Highway Administration (FHWA), Federal Aviation Administration (FAA), California Department of Transportation (Caltrans), or other government agencies;
  - 2 For traffic noise studies, the computer models, SOUND32 or other proprietary models based on the 1978 "FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108)," as amended, shall be used. The FHWA's new "Traffic Noise Model" (TNM) shall be used after its phase-in period. For aircraft noise studies, the latest version of the FAA's "Integrated Noise Model" (INM) shall be used;
  - 3 If standard government approved models do not exist (e.g., railroad and industrial noise sources), a description of the model shall be provided;
- D **Existing and Projected Noise Levels.** A description of existing and future (20 years minimum) noise levels together with a comparison of these noise levels to the noise level standards specified above and in Table 3-7 (Table 4.9-8 of this report);

- E **Impacts of or Impacts on the Project.** Discussion of the noise impacts generated by the project and/or the impacts of existing and future noise levels on the project, including anticipated quantifiable changes in the noise environment, shall be presented; and
- F **Noise Attenuation/Mitigation Measures.** Recommended noise attenuation/mitigation measures to achieve compliance with the standards specified above and in Table 3-7 (Table 4.9-8 of this report) (e.g., noise barriers/walls, site design, setbacks, enclosure of noise-generating uses and equipment, equipment modification and muffling, structure soundproofing), or a detailed explanation stating why mitigation is infeasible. (Ord. 023-07 C.S. § 42; prior code § 16-340.050)

#### 16.60.060 Evaluation of proposed projects.

Applicants for projects requiring discretionary approval shall be required by the Review Authority to submit evidence to determine whether the proposed project complies or will comply with the provisions of this chapter. Failure to submit the requested information within a specified time period may render the application incomplete.

- A **Information.** Required information may include the following:
  - 1 **Construction Plans.** Plans of construction and development;
  - 2 **Production Plans.** A description of the machinery, processes, or products to be used or produced on the premises;
  - 3 **Operational Characteristics.** A description of the project's operational characteristics (e.g., hours of operation, work shifts, number of truck, rail, or other deliveries, etc.);
  - 4 **Noise Emission Levels.** Estimation of the expected noise levels produced by the proposed project; and
  - 5 **Noise Emission Mitigation.** Description of the methods to be used in restricting the emission of noise from the premises.
- B **Noise Thresholds of Significance.** The threshold for determining the potential significance of a noise impact under CEQA shall be:
  - 1 An incremental increase of three (3) dB Ldn or greater to exterior or interior noise levels; or
  - 2 Any exceedance of existing maximum noise standards, which may constitute a significant cumulative noise impact. (Prior code § 16-340.060)

#### 16.60.070 Noise attenuation.

If the existing noise levels affecting a project are greater than those allowed, the developer shall mitigate the noise as follows:

- A **Infill Projects.** For infill projects, site planning and construction techniques shall be used to reduce sound levels to allowed maximum interior sound levels or below. Examples of noise reducing techniques include orienting building openings away from the noise source, appropriate subdivision design for noise avoidance, landscape setbacks and berms, use of acoustical barriers and walls, enclosure of noise-generating uses and equipment, and use of appropriate building construction technology and materials to reduce interior noise levels.

The proposed project would be required to comply with the City of Stockton Municipal Code Noise Regulations and Development Code Noise Standards, which are presented above, and discussed in the impact analysis presented below.

## 4.9.4 Impacts and Mitigation Measures

### Methods of Analysis

Potential noise impacts associated with the proposed project were calculated and analyzed based on project information; information contained in the traffic analysis prepared for the project in Section 4.11, Transportation and Circulation; and data obtained during on-site noise monitoring. Observations made during the site survey along with land-use information and aerial photography were used to determine potential locations of sensitive receptors in the project vicinity. The California Environmental Quality Act requires that the noise impacts *caused by* the project be considered; for proposed residential and commercial development, the principal source of project-generated noise is the addition of vehicle trips to area roadways. As a result, noise impacts resulting from increases in off-site traffic noise levels along roadways which would provide access to the project site must be evaluated.

### Traffic Noise Impact Assessment

Traffic noise modeling involved the calculation of baseline and cumulative traffic noise levels along roadway segments where the proposed project elements would contribute additional vehicle trips, based on traffic data developed as part of the Transportation Technical Memorandum prepared for the project (Appendix I). Traffic noise levels were calculated based on the FHWA TNM prediction algorithms (FHWA 2004). Traffic noise levels were modeled for the following scenarios: Existing No Project (2022) and Cumulative plus-Project conditions (2042). Modeling outputs for the Cumulative plus Project scenario were evaluated against the existing (2022) conditions to determine the potential for an increase of traffic noise levels and exceedance of applicable noise level criteria and impact thresholds.

To determine existing Ldn traffic noise levels in the project vicinity, the average daily traffic volumes for roadways in the immediate vicinity of the project site were used as inputs to the noise model. Traffic data was provided directly in the form of segment volumes and in the form of “peak-hour” intersection turning movement volumes from TJKM, the traffic consultant. Standard assumptions were used and inputs to the model for diurnal traffic patterns and vehicle classifications (i.e., small automobiles, medium trucks, heavy trucks, motorcycles, and buses).

### Construction Noise and Vibration

Construction-related noise effects were assessed with respect to nearby noise-sensitive receptors and their relative exposure (accounting for intervening topography, barriers, distance, etc.), based on application of FHWA Roadway Construction Noise Model and FTA reference noise level data and usage-factors. Noise levels from various types of construction equipment is provided in Table 4.9-9. Construction noise levels were predicted using reference noise emission data and operational parameters contained in the FHWA Roadway Construction Noise Model (RCNM) and the FTA guidance manual and the default construction fleet assumptions used in the air quality analysis in Section 4.1.

**Table 4.9-9. Noise Levels from Construction Equipment**

| Equipment Type | Maximum Noise Levels, $L_{max}$ (dBA) at 50 feet |
|----------------|--|
| Air Compressor | 80   |
| Asphalt Paver  | 80   |
| Backhoe        | 80   |
| Compactor      | 82   |
| Concrete Pump  | 90   |
| Concrete Saw   | 85   |

**Table 4.9-9. Noise Levels from Construction Equipment**

| Equipment Type   | Maximum Noise Levels, $L_{max}$ (dBA) at 50 feet |
|------------------|--|
| Crane, Mobile    | 85   |
| Dozer            | 85   |
| Forklift         | 85   |
| Front-End Loader | 80   |
| Generator        | 82   |
| Grader           | 85   |
| Paver            | 85   |
| Pneumatic Tools  | 85   |
| Rock Drill       | 85   |
| Roller           | 85   |
| Scraper          | 85   |
| Trucks           | 84   |
| Water Pump       | 84   |
| Welder           | 84   |

**Source:** DOT 2006, FHWA 2008, FTA 2018.

**Notes:** dBA = A-weighted decibels;  $L_{max}$  = day-night average noise level.

All equipment fitted with a properly maintained and operational noise control device, per manufacturer specifications.

Potential effects associated with long-term noise sources were assessed based on project documentation, site reconnaissance data and reference noise level for the various noise sources.

Groundborne vibration impacts were qualitatively assessed based on existing reference documentation (e.g., vibration levels produced by specific construction equipment operations), through the application of Caltrans methodology outlined within the Transportation- and Construction- Induced Vibration Guidance Manual and the relative distance to potentially sensitive receptors from a given vibration source. Table 4.9-10 provides an overview of representative vibration levels for construction equipment.

**Table 4.9-10. Representative Vibration Levels for Construction Equipment**

| Equipment                     |             | PPV at 25 feet (in/sec) <sup>1,3</sup> | Approximate $L_v$ (VdB) at 25 feet <sup>2</sup> |
|-------------------------------|-------------|--|---|
| Pile Driver (impact)          | Upper range | 1.518                                  | 112   |
|                               | Typical     | 0.644                                  | 104   |
| Pile Driver (vibratory/sonic) | Upper range | 0.734                                  | 105   |
|                               | Typical     | 0.170                                  | 93  |
| Vibratory Roller              |             | 0.210                                  | 94  |
| Hoe Ram                       |             | 0.089                                  | 87  |
| Large Bulldozer               |             | 0.089                                  | 87  |
| Caisson Drilling              |             | 0.089                                  | 87  |
| Heavy-duty Trucks (Loaded)    |             | 0.076                                  | 86  |
| Jackhammer                    |             | 0.035                                  | 79  |
| Small Bulldozer               |             | 0.003                                  | 58  |

**Source:** DOT 2006.

**Notes:**

<sup>1</sup> Where PPV is the peak particle velocity.

- <sup>2</sup> Where  $L_v$  is the RMS velocity expressed in vibration decibels (VdB), assuming a crest factor (difference between peak of signal and the RMS average) of 4.
- <sup>3</sup> Vibration levels can be approximated at other locations and distances using the above reference levels and the following equation:  $PPV_{equip} = PPV_{ref} (25/D)^{1.5}$  (in/sec); where "PPV ref" is the given value in the above table, "D" is the distance for the equipment to the new receiver in feet.

## Helicopter Noise

Helicopter and heliport noise levels were calculated based on the reference noise measurements performed on the existing helicopter operations at the existing heliport. As existing heliport and helicopter reference noise level measurements were performed at the same setback distance between the proposed heliport and the nearest noise-sensitive uses, the measured noise levels are representative of the noise levels that would be experienced during an individual helicopter operation.

## Thresholds of Significance

A significant impact would occur if development of the proposed project would do any of the following:

- Result in generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project substantially above levels existing without the Project or in excess of standards established in the City's general plan or noise ordinance, or applicable standards of other agencies.
- Result in generation of excessive groundborne vibration or groundborne noise levels.
- 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 (2) miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

For this analysis, short-term temporary noise levels generated by construction of the proposed project is evaluated against the FTA recommended daytime construction noise level thresholds, which establishes a sound level threshold of 80 dBA  $L_{eq8h}$  over an 8-hour period at the property line of nearby noise-sensitive land uses. Long-term or permanent noise levels are evaluated against the City's General Plan maximum allowable noise levels (see Tables 4.9-7), as well as the Development Code property line thresholds (see Table 4.9-8). Permanent increases in ambient noise levels will be evaluated against the City's Development Code significance criteria of an incremental increase of 3 dBA Ldn or greater.

## Threshold Significance Criteria Not Applicable to the Proposed Project

Potential impacts associated with proximity to a public or private airport were analyzed in the Initial Study (IS) prepared for this project (Appendix B). A brief discussion of conclusions made in the IS follows below.

### Private Airstrip or Public Airport

The nearest public or public-use airport is Stockton Municipal Airport. The project area is located approximately five (5) miles northwest of the Stockton Municipal Airport. The project area is also outside of the airport influence area (San Joaquin County 2016) and is located more than two (2) miles from the airport. Therefore, there is no potential to expose people in the project area to excessive airport-related noise, and this issue is not considered further in this EIR.

## Project Impacts

**Impact 4.9-1      The proposed project could result in generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project substantially above levels without the**



**project or in excess of standards established in the City's general plan or noise ordinance, or applicable standards of other agencies.**

### Construction Noise

The proposed project would generate noise associated with the operation of heavy construction equipment and construction related activities in the vicinity of the project area. Construction noise levels in the vicinity of the proposed project would fluctuate depending on the particular type, number, and duration of usage for the various pieces of equipment, as well as the relative exposure and distance between the source and receptors.

The effects of construction noise depend largely on the types of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment in the vicinity of the receiver. Construction generally occurs in several discrete stages, with each stage varying the equipment mix and the associated noise. These stages alter the characteristics of the noise environment on the project site and in the surrounding community for the duration of construction.

The demolition, site preparation and grading stages typically generate the most substantial noise levels due to on-site equipment grading, compacting, and excavating activities, which often uses the loudest mix of construction equipment. Specific site preparation equipment can include backhoes, bulldozers, loaders; excavation equipment such as graders and scrapers; and compaction equipment. Erection of larger structural elements and mechanical systems could require the use of a crane for placement and assembly tasks, which may also generate substantial noise levels. Based on the geotechnical report prepared for the proposed project, the project is not currently assumed to require the use of blasting, impact or vibratory pile driving and where additional foundational support is necessary drilled piles or cast in place piles are assumed to be used. Table 4.9-9 above lists the maximum noise levels typically generated by various types of construction equipment, at a standardized reference distance of 50 feet from the noise source.

To assess noise levels associated with the various equipment types and operations, construction equipment can be considered to operate in two (2) modes, mobile and stationary. Mobile equipment sources move around a construction site performing tasks in a recurring manner (e.g., loaders, graders, dozers). Stationary equipment operates in a given location for an extended period of time to perform continuous or periodic operations (e.g., compressor or generator). Thus, it is necessary to determine the location of stationary sources during specific stages of construction, and the effective acoustical center of operations for mobile equipment during various stages of the construction process. The effective acoustical center is the idealized point from which the energy sum of all construction activity noise near and far would appear to originate. As one increases the distance between equipment and/or between areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together.

Operational characteristics of heavy construction equipment are additionally typified by short periods of full-power operation followed by periods of operation at lower power, idling, or powered-off conditions. These characteristics are accounted for through the application of typical usage factors (operational percentage) to the reference maximum noise levels presented in Table 4.9-9 above.

Although specific building design and construction requirements for buildout of the project are currently unknown, it is anticipated that development of the various project elements would incorporate the use of typical construction sources such as backhoes, compressors, bulldozers, excavators, loaders, drills, and other related equipment based on the default CalEEMod assumptions used for the air quality analysis. Based on the reference noise levels, usage rates, and operational characteristics discussed above, overall hourly average noise levels attributable to project construction activities were calculated by building phase and construction stage and are provided in Table 4.9-11.

Project construction activities would be performed during the hours of 6:30 a.m. to 4:00 p.m. keeping in general compliance with City Code section 16.60.030 A, which prohibits construction noise generation between the hours of 10:00 p.m. and 7:00 a.m., with the exception of the 6:30 a.m. to 7:00 a.m. period.

Construction noise levels presented in Table 4.9-11 are presented at different distances, illustrating the predicted noise level exposure at a distance representing the noise-sensitive receptor, either located in closest proximity to, or with the greatest potential exposure to the individual noise source or project feature being analyzed. In this case, the City applies the noise level thresholds at the sensitive use property boundary, so a representative distance would be the distance from the project's property boundary (or noise source) to the property boundary of the nearest noise-sensitive receptor. The residences located between 434 E. Cleveland Street and 447 E. Hawthorne Street<sup>7</sup> (parallel to N. California Street) were selected as representative locations for construction activities being performed along the boundary of the Medical Center project area, with a representative distance of 175 feet and 380 feet from the acoustical center<sup>8</sup> of the proposed project construction activities to the property line of the residences. The existing West and East wings of the Medical Center would be approximately 565 feet from the acoustical center of the proposed project construction activities; as such, the construction analysis focuses on the potential impact at the identified residences between E. Cleveland Street and E. Hawthorne Street.

**Table 4.9-11. Construction Noise Model Results Summary**

| Building Phase | Construction Stage                           | Construction Noise Level, Leq dBA |   |  |
|----------------|--|-----------------------------------|---|--|
|                |  | Reference (50 feet)               | Project PL to 434 E. Cleveland St PL (175 feet) | Acoustical Center to 434 E. Cleveland St PL (380 feet) |
| 1              | Demolition                                   | 75.8                              | 61.3  | 55.4   |
|                | Site Preparation                             | 71.7                              | 56.1  | 53.6   |
|                | Grading                                      | 75.1                              | 60.6  | 53.6   |
| 2              | Demolition                                   | 75.8                              | 61.3  | 55.4   |
|                | Site Preparation                             | 71.7                              | 56.1  | 53.6   |
|                | Grading                                      | 75.7                              | 62.0  | 56.0   |
|                | Building Construction                        | 72.4                              | 57.8  | 54.1   |
|                | Architectural Coating                        | 64.9                              | 50.4  | 42.6   |
| 3              | Grading                                      | 76.5                              | 62.0  | 53.6   |
|                | Building Construction                        | 72.4                              | 57.8  | 54.1   |
|                | Architectural Coating                        | 64.9                              | 50.4  | 42.6   |
| 4              | Demolition                                   | 75.8                              | 61.3  | 55.4   |
|                | Façade Improvements and Interior Renovations | 71.2                              | 56.7  | 51.6   |
|                | Architectural Coating                        | 64.9                              | 50.4  | 42.6   |
| 5              | Demolition                                   | 75.8                              | 61.3  | 55.4   |
|                | Site Preparation                             | 71.7                              | 56.1  | 53.6   |
|                | Grading                                      | 74.5                              | 60.6  | 53.6   |

<sup>7</sup> The range of addresses represented here, and the associated setback distance (175 feet) from the project's western property boundary are representative of the construction noise exposure for these parcels with similar setback distances: 447 E. Hawthorne Street, 440 E Wyandotte Street, 433 E Wyandotte Street, and 434 E. Cleveland Street.

<sup>8</sup> The acoustical center is defined as the square-root of the product of the nearest distance of operations and the farthest distance of noise source operations. Typically, this is significantly closer to the nearest receptors than the distance to the geometric center.

**Table 4.9-11. Construction Noise Model Results Summary**

| Building Phase | Construction Stage    | Construction Noise Level, Leq dBA |   |  |
|----------------|-----------------------|-----------------------------------|---|--|
|                |                       | Reference (50 feet)               | Project PL to 434 E. Cleveland St PL (175 feet) | Acoustical Center to 434 E. Cleveland St PL (380 feet) |
|                | Building Construction | 72.4                              | 57.8  | 54.1   |
|                | Architectural Coating | 64.9                              | 50.4  | 42.6   |

Source: Dudek 2022.

Notes: dBA = A-weighted decibels; Leq = equivalent sound level; PL = Property Line

As indicated in Table 4.9-11, based on the reference noise levels, usage rates, and operational characteristics discussed above, noise levels associated with construction is calculated to range from 64.9 to 76.5 dBA Leq at a distance of 50 feet. Applying a typical sound attenuation rate for localized point sources (e.g., heavy construction equipment, mobile-source construction noise, stationary-source construction noise) of 6 dB per doubling of distance, between the proposed project's property line and the nearest sensitive receptor (434 E. Cleveland St.), construction equipment noise levels would range from approximately 50 to 62 dBA Leq at a setback distance of 175 feet (noise levels would be relevant to other noise-sensitive parcels with the same setback distance, as previously discussed). Overall average construction activities would be distributed across the proposed project site and thus are calculated from the apparent acoustical center as previously discussed. Construction activities would be further attenuated to range from approximately 43 to 56 dBA Leq when calculated from the acoustical center of the activity. Therefore, construction noise levels would comply with the FTA's construction noise level thresholds of 80 dBA and 70 dBA Leq8h for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) periods respectively. Effects of daytime and nighttime construction operations on absolute noise levels criteria would be considered less than significant.

Additionally, based on the ambient noise level measurements, the lowest average hourly noise level occurring during the proposed construction operational hours (6:30 a.m. to 4:00 p.m.) would be approximately 57 dBA Leq. Construction noise levels associated with the proposed project would have the potential to reach 55 to 56 dBA Leq at the nearby noise-sensitive property boundary, which would be below the measured Leq ambient noise levels, resulting in a potential increase in ambient noise levels of less than 3 dB and are not anticipated to result in a significant increase in the ambient noise environment.

While construction activities associated with the proposed project are predicted to comply with FTA's absolute noise level thresholds and the City's ambient noise increase thresholds, the City's Municipal Code Section 16.60.030 prohibits construction noise that could create a disturbance across a residential property line between the hours of 10:00 p.m. and 7:00 a.m. With construction activities anticipated to take place between the 6:30 a.m. and 7:00 a.m. (outside of the allowable hours of construction under the City's Municipal Code), there would be the potential for construction noise to exceed the City's standards. To determine if the project would result in a disturbance across a residential property line, the construction noise levels are evaluated against the City's land-use based hourly nighttime noise standard of 45 dBA Leq. Construction noise levels were modeled to range from 43 to 56 dBA Leq (when propagated from the acoustical center of operations) and would exceed the City's nighttime noise standard of 45 dBA Leq during the half hour period prior to 7:00 a.m. Therefore, because project construction activities would have the potential to generate a disturbance across a residential property line and are located in close proximity to sensitive receptors, project construction activities that occur prior to 7:00 a.m. are considered to result in a **potentially significant impact**.

## Long-Term/Operational Noise

### Traffic Noise

The proposed project would result in the creation of additional vehicle trips on local roadways in the vicinity of the project (i.e., N. California Street and E. Harding Way), which could result in increased traffic noise levels at noise-sensitive land uses adjacent to area roadways. Potential off-site noise impacts resulting from the increase in vehicular traffic on the local roadway network, associated with long-term operations of the proposed project, were evaluated under Existing (2022) and Future (2042) no Project and plus Project scenarios. Traffic volumes and the distribution of those volumes were obtained from the traffic consultant, TJKM (TJKM 2022). Average vehicle speeds on local area roadways were assumed to be consistent with posted speed limits and remain as such with or without implementation of the proposed project.

Table 4.9-12 summarizes modeled  $L_{dn}$  traffic noise levels for the Existing (2022) scenarios, at prediction receiver locations representing the outdoor activity areas of noise-sensitive land-uses adjacent to roadway segments in the project vicinity. Table 4.9-13 summarizes modeled  $L_{dn}$  traffic noise levels for the Future 2042 (2042) scenarios. The tables also present the relative traffic noise level increase (net change) resulting from development of the proposed project. Actual traffic noise exposure levels at noise-sensitive receptors in the project vicinity would vary depending on a combination of factors such as variations in daily traffic volumes, relative distances between sources and receiver locations, shielding provided by existing and proposed structures, and meteorological conditions. Refer to Appendix K for modeling inputs and results.

**Table 4.9-12. Predicted Existing (2022) No Project and Plus Project Traffic Noise Levels**

| Roadway              | Segment                                | Existing (2022) | Existing Plus Project | City Increase Threshold | Net Change | Impact? |
|----------------------|--|-----------------|-----------------------|-------------------------|------------|---------|
| N. California Street | between Hawthorne St and McCloud Ave   | 59.5            | 59.9                  | 3                       | <1         | No      |
| N. California Street | between Alpine Ave and Cleveland St    | 59.7            | 60.1                  | 3                       | <1         | No      |
| Cemetery Lane        | North of Maple St                      | 47.4            | 47.7                  | 3                       | <1         | No      |
| E. Harding Way       | between Hunter St and N. California St | 63.9            | 64.1                  | 3                       | <1         | No      |
| E. Harding Way       | between N. California St and Palm Ave  | 69.7            | 69.8                  | 3                       | <1         | No      |

Source: Dudek 2022.

Notes: dBA = A-weighted decibels;  $L_{dn}$  = Day/Night average noise level

\* Traffic noise levels are predicted at prediction receiver locations representing the distance to the outdoor activity area of noise-sensitive land uses adjacent to major roadway segments in the project vicinity and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

As shown in Table 4.9-12, modeled traffic noise levels along the N. California Street and E. Harding Way roadway segments in the vicinity of the proposed project approach or exceed the maximum acceptable noise level threshold for Existing (2022) conditions at a number of locations in the study area. Because of this and to further evaluate effects of the proposed project, the potential for the project to increase the ambient noise level in the project's vicinity is also analyzed. According to the City's Development Code an incremental increase in ambient noise levels would be considered significant if the project were to result in an increase of +3 dB when compared to the No Project or Existing (2022) scenario.

Existing (2022) traffic noise levels presented in 4.9-12 indicate that existing traffic noise levels in the project vicinity currently range from approximately 47 to 64 dBA  $L_{dn}$  at the outdoor activity areas of sensitive receptors near area roadways, and approximately 70 dBA at the setback distance of the building façade of the existing Woman’s & Children’s Pavilion. Development of the proposed project under the Existing (2022) scenario is calculated to result in marginal increases in much of the project study area, with all traffic noise increases being less than 1 dBA. Traffic noise level increases associated with the proposed project would be less than the City’s acceptable increase thresholds and would not result in a +3dB increase. Therefore, the proposed project is anticipated to result in increases of traffic noise levels that would result in a **less-than-significant impact**.

**Table 4.9-13. Predicted Future (2042) No Project and Plus Project Traffic Noise Levels**

| Roadway              | Segment                                  | Future (2022) | Future Plus Project | City Increase Threshold | Net Change | Impact? |
|----------------------|--|---------------|---------------------|-------------------------|------------|---------|
| N. California Street | between Hawthorne St and McCloud Ave     | 60.2          | 60.6                | 3                       | <1         | No      |
| N. California Street | between Alpine Ave and Cleveland St      | 60.2          | 60.6                | 3                       | <1         | No      |
| Cemetery Lane        | North of Maple St                        | 47.3          | 47.5                | 3                       | <1         | No      |
| E. Harding Way       | between Hunter St and N. California St   | 67.0          | 67.1                | 3                       | <1         | No      |
| E. Harding Way       | Between N. California St and Palm Avenue | 69.6          | 69.6                | 3                       | <1         | No      |

Source: Dudek 2022.

Notes: dBA = A-weighted decibels;  $L_{dn}$  = Day/Night average noise level

\* Traffic noise levels are predicted at prediction receiver locations representing the distance to the outdoor activity area of noise-sensitive land uses adjacent to major roadway segments in the project vicinity and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

Future (2042) traffic noise levels presented in 4.9-13 indicate that existing traffic noise levels in the project vicinity currently range from approximately 47 to 64 dBA  $L_{dn}$  at the outdoor activity areas of sensitive receptors near area roadways, and approximately 70 dBA at the setback distance of the building façade of the existing Woman’s & Children’s Pavilion. Development of the proposed project under the Existing (2042) scenario is calculated to result in marginal increases in much of the project study area, with all traffic noise increases being less than one (1) dBA. Traffic noise level increases associated with the proposed project would be less than the City’s acceptable increase thresholds for the Future (2042) scenario. Therefore, the proposed project is anticipated to result in increases of traffic noise levels that would result in a **less-than-significant impact**.

Parking Structure and Surface Parking Lot

The proposed project includes a multistory Parking Structure on the east side of N. California Street between E. Wyandotte Street and E. Hawthorne Street, that would include a ground floor and nine (9) elevated floors, to accommodate up to 1,980 new parking spaces. There are additional surface parking lots of approximately 70 spaces to serve the new Emergency Department and approximately 16 parking spaces north of the proposed parking structure. The transportation analysis prepared for the proposed project indicates that 1,368 vehicle trips would be generated during the AM peak hour and 1,323 vehicle trips during the PM peak hour (TJKM 2022). This analysis conservatively assumes that each parking space would experience one vehicle trip during a peak hour.

Activities making up a single parking event included vehicle arrival, limited idling, occupants exiting the vehicle, door closures, conversations among passengers, occupants entering the vehicle, and vehicle startup and departure. These parking actions can be described based on the duration of an event, the average noise level, and the maximum noise level occurring with a discreet parking action, summarized through the single-event sound exposure level (SEL) metric.<sup>9</sup> Empirical sound level measurement data for parking lot activity, documented by Dudek staff, indicate that the average SEL associated with a single parking event is approximately 71 dBA at a distance of 50 feet from the center of parking activity.

Assuming 1,980 vehicle trips would occur during a peak hour, based on the project trip generation rates, and the average single-event SEL of 71 dBA, parking activities would generate a noise level of approximately 63 dBA at a distance of 50 feet during the peak hour of parking activities. The nearest noise-sensitive receptor to the Parking Structure ingress and egress points is located approximately 230 feet west of the nearest parking activity, at 447 E. Hawthorne Street. As previously discussed, the predicted noise levels would be relevant for other noise-sensitive property lines with similar setback distances but would potentially experience some shielding from the partial height walls of the structure. As such, the 447 E. Hawthorne Street property line was selected for the analysis, as it has greater potential exposure to the Parking Structure activities, resulting in a more conservative analysis. Parking activities within the structure are assumed to potentially take place throughout the entirety of the Parking Structure, which necessitates including an analysis based on the acoustical center of parking activities. The acoustical center of the sound levels generated by parking activities within the proposed parking structure would be located approximately 340 feet from the nearest noise-sensitive property boundary to the west. Assuming a standard attenuation rate of 6 dB per doubling of distance, noise levels generated by the parking activities would be approximately 52 dBA Leq during peak hour parking activities. As both the AM and PM peak hour vehicle trips would take place during the daytime 7:00 a.m. to 10:00 p.m. hours, the peak hour parking structure activities are evaluated against the City Code daytime 55 dBA Leq threshold.

Maximum sound levels generated by car doors closing, trunk closure, engine start up, car pass-by and tire squeal have been measured to produce sound levels of 63 to 69 dBA  $L_{max}$  at a distance of 50 feet (Bayer 2007). The parking structure design includes partial height walls that would provide shielding of the parking activities at the nearby residential receptors, reducing sound levels by 5 to 7 dB at lower to higher floors respectively. Without accounting for potential shielding provided by the partial height walls of parking structure itself, maximum parking activity sound levels are calculated to be approximately 56 dBA  $L_{max}$  at the nearby residential property boundary at 447 E. Hawthorne Street, approximately 230 feet to the west of the parking structure façade. Based on the ambient noise survey performed for the project, maximum noise levels experienced at the nearest noise-sensitive land uses ranged from approximately 75 to 77 dBA  $L_{max}$ , and approximately 59 dBA Leq during daytime hours. Therefore, the proposed parking operations would be below the background ambient levels and would not result in an increase in ambient noise levels in the project vicinity.

Parking from the additional surface parking lots would be well below the levels produced by the parking structure and would not contribute considerably to the overall noise levels produced by parking activities generated by the proposed project. Based on the analysis, parking activities at both the parking structure and surface parking lots of the proposed project are predicted to comply with the City Code's maximum daytime and nighttime noise level standard, as applicable. Therefore, noise levels associated with parking activities at the proposed project parking structure and surface parking would be a **less-than-significant impact**.

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<sup>9</sup> Sound Exposure Level (SEL) is the total sound energy for an event summed into 1-second.



In addition to normal parking activities at the proposed parking structure and surface parking lots, the vehicle and pedestrian ingress and egress paths for the parking structure, along with controlled vehicle and pedestrian access paths are currently planned to incorporate some form of visual indication and auditory alert/notification beacon system for ADA compliance. Information on the specific types of equipment and locations of the ADA notification systems has not yet been finalized. As such, depending on the specific capabilities and locations for the ingress/egress notification systems, the systems may have the potential to produce sound levels in excess of the applicable City of Stockton non-transportation noise level thresholds at the noise-sensitive receptors located approximately 230 feet to the west of the parking structure. Therefore, ADA ingress and egress notification systems associated with the Parking Structure and controlled surface parking lots would be considered a **potentially significant impact**.

### Heliports

The proposed project is considering four (4) options for including new heliport facilities. All of the four (4) options would be located on the roof of the parking structure, at a maximum height of approximately 115 feet above ground level and a parking deck parapet approximately seven (7) feet tall. The options include the construction of one new heliport (Option A), two (2) new heliports (Option B), one heliport with an adjacent helicopter/unmanned aerial vehicle (UAV, a.k.a. “drone”) parking area (Option C), or the construction of two (2) heliports with two (2) adjacent helicopter/UAV parking areas (Option D).

As previously mentioned, noise levels generated by the existing heliport were quantified during the existing ambient noise monitoring program. A Reach Air Medical Services helicopter approaching from the east and directly over the ST-1 measurement site to land on the existing heliport had an average level of 83 dBA Leq and a maximum level of 91. At the approximate setback distance of the nearest noise-sensitive receptors to the west of the proposed project (500-feet to the west of the existing heliport), measurement site ST-2 experienced an average noise level of 67 dBA Leq and a maximum level of 70 dBA L<sub>max</sub>. Exposure to the elevated helicopter noise levels at the setback of the noise-sensitive receptors to the west had an approximate duration of 56 seconds, where the sound was affecting the background ambient sound levels. Based on the measurement data, observations and duration affecting the ambient sound level, the average noise level exposure at the setback distance of the existing nearby noise-sensitive receptors, west of the proposed heliport(s), was calculated and is presented in Table 4.9-14.

Current helicopter operations at the Medical Center are scheduled operations and most often are used for transferring (or receiving) patients from the Medical Center to receive specialized care and treatment at other medical facilities. These current and foreseeable future medical transport operations are typically scheduled to occur during the hours between 7:00 a.m. and 10:00 p.m., with the exception of emergency airlift operations. Existing and proposed heliport usage is anticipated to maintain similar activities as at the existing heliport depending on proximity to the patient location/destination within the Medical Center which would determine which heliport is used (the existing heliport is located proximate to the Women’s and Children Pavilion). There are presently approximately 9 to 10 helicopter flights typically occurring in a one-month period and typical flight paths use airspace east of the heliport over the cemetery (AIRSAFE 2021, Pers. Comm. Brewer 2022). The calculations assume that one (1) takeoff and one (1) landing operation would occur at each heliport, with the parking/storage area enabling an additional takeoff or landing event within a one-hour period experiencing maximum operations. Given that the use of the helicopters is for medical transport, it is assumed that these operations would have the potential to take place anytime during a 24-hour period.

**Table 4.9-14. Predicted Helicopter Noise Levels**

| Option | Description                             | Noise Levels at Existing Residential Setback, dBA |      |          |
|--------|---|---|------|----------|
|        |   | Leq   | Lmax | Ldn/CNEL |
| -      | Existing heliport                       | 46.1  | 64.2 | 39.7     |
| A      | One new heliport                        | 49.3  | 67.4 | 40.5     |
| B      | Two new heliports                       | 52.3  | 67.4 | 43.5     |
| C      | One new heliport with adjacent parking  | 51.0  | 67.4 | 42.3     |
| D      | Two new heliports with adjacent parking | 54.0  | 67.4 | 45.3     |

**Source:** Dudek 2022.

**Notes:** dBA = A-weighted decibels; Leq = energy equivalent average hourly noise level.

As presented in Table 4.9-14, the predicted helicopter noise levels at the nearest existing noise sensitive receptors to the west of the proposed project's heliport(s) would range from approximately 49 to 54 dBA Leq, with maximum noise levels of 67.4 dBA L<sub>max</sub>. Helicopter operations associated with the proposed project are calculated to result in 24-hour noise levels between approximately 40 and 45 dBA L<sub>dn</sub> at the nearest existing noise sensitive receptor setback distance to the west.

Based on the measured noise levels for existing heliport operations discussed above, the location of the proposed project's heliport(s) and the assumptions presented, the proposed project's heliport operations would comply with the City's Municipal Code that addresses transportation-related noise standards for residential land uses of 65 dBA L<sub>dn</sub> (Table 4.9-8, Part I), and the daytime (7:00 a.m. to 10:00 p.m.) land use-related noise standard of 55 dBA Leq; however, while the heliport operations would have the potential to exceed the City's 45 dBA Leq exterior nighttime (10:00 p.m. to 7:00 a.m.) noise level threshold (Table 4.9-8, Part II), heliport operations would be exempt under City Code section 16.60.020 A, Emergency Exemption because helicopter noise is considered "the emission of sound in the performance of emergency work", as provided for in that section of the City's Code. Therefore, the project's proposed heliports would result in a **less-than-significant impact**.

Because there may be an occasion for a helicopter to access the Medical Center during the nighttime hours, this could result in short-term sleep disturbance for residents in the area. The City's General Plan includes Action SAF-2.5B, which requires the effects of noise in terms of possible sleep disturbance be evaluated. As discussed in the Environmental Setting and above, the disturbance associated with a helicopter would be for less than approximately one (1) to two (2) minutes, which could result in some residents being exposed to short-term temporary helicopter noise. Interior noise levels are typically reduced by 15 dB with windows open or between 25-30 dB with windows closed. Conservatively assuming that windows within nearby noise-sensitive rooms may be open, noise levels due to helicopter operations at the proposed heliport (presented in Table 4.9-14) would be reduced to less than 39 dB Leq, so while the individual helicopter events may be audible within residences, helicopter noise would be less than the noise level exposure documented to currently exist in the ambient environment from existing transportation noise. Therefore, although temporary sleep disturbance could occur, it is anticipated that due to the short period of time (one (1) to two (2) minutes), the limited number of flights, and the sound attenuation achieved through the exterior to interior reduction provided by the building envelope (windows, doors, wall assembly's, roofs, etc.), any potential sleep disturbance would be negligible and would not affect a significant number of residents. nor would helicopter noise exceed the City's interior noise level threshold of 45 dBA Leq.

Based on the existing ambient noise survey, the nearest residential property line to the west of the proposed heliport (LT-1) is exposed to existing transportation noise levels ranging from 62 to 63 dBA L<sub>dn</sub>. The calculated contribution of the existing heliport operations to the ambient L<sub>dn</sub> noise levels at the noise-sensitive receptor nearest the

proposed heliport (LT-1) are 39.7 dBA  $L_{dn}$ , with predicted helicopter noise levels associated with the proposed project ranging from approximately 40 to 45 dBA  $L_{dn}$ . Noise level exposure at the nearest noise-sensitive receiver (LT-1) attributable solely to helicopter operations would have the potential to increase by 5.6 dBA  $L_{dn}$ ; however, with existing ambient noise levels of 62 to 63 dBA  $L_{dn}$  (due primarily to vehicular traffic noise) the heliport operations would be below the ambient noise levels by more than 10 dB and not result in an increase in the existing ambient noise environment. Therefore, the proposed heliport operations would comply with the City's 3 dBA  $L_{dn}$  ambient increase threshold.

In addition to helicopter operations at the proposed heliports, the Medical Center would allow the heliport landing areas to be used for medical-related UAV operations. These UAV operations could be conducted at any time throughout the day or night for transport of medical supplies, equipment, and organs for transplant procedures. The use of UAVs for medical-related transport is a developing industry, which has been employing both fixed-wing aircraft and rotorcraft. Additionally, research into community response to noise levels generated from delivery by UAVs and unmanned aerial systems (UAS), performed by researchers at Virginia Tech over a period of two years, was cited as a concern by 17% of respondents, 75% of respondents mentioned noise but felt positively about UAV/UAS delivery, and 61% reported being likely to use the delivery service (Virginia Tech 2021). Sound levels and the character of sound generated by UAVs has been shown to vary considerably based on type of operations, payload, meteorology, aircraft type, and mission type; however, these operations have been shown to produce considerably less noise than crewed aircraft, such as helicopters. Due to the mission type and location where the UAVs would operate from, and the itinerant or infrequent nature of the medical-related operations that would be carried out, noise levels generated by UAV operations would likely be negligible and generate less noise than that of a helicopter or transport vehicle on area roadways (FAA 2022). Therefore, proposed UAV operations at the heliports would result in a **less-than-significant impact**.

#### Non-Transportation/long-term Operational Noise

As discussed in Chapter 2, Project Description, the project is currently proposed to include the development of a new Acute Care Hospital Tower and other required support services. Development would potentially introduce new noise sources that could have the potential to create noise levels that exceed applicable City noise standards or result in annoyance at existing noise-sensitive receptors in the surrounding community. Long-term operational noise sources associated with the proposed project are anticipated to include mechanical equipment, the central plant, and emergency generators. A discussion and assessment of impacts for potential noise generating elements of the proposed project is provided in the following sections based on the project description.

The long-term operations of the proposed project would also include activities at the new trash/hazardous waste dock, a new dietary dock, and new ambulance entrance. All of the dock and ambulance activities would continue to access the proposed project using Cemetery Lane, consistent with current operations. The new docks and the ambulance entrance would be located on the east side of the existing and proposed structures, which would shield the existing noise-sensitive uses west of the Medical Center from activities at the docks and ambulance entrance. Based on the intermittent nature of the dock operations, and the limited time that commercial vehicles are allowed to idle (five (5)-minutes), and the substantial shielding that would be provided by the Medical Center structures noise levels associated with activities at the docks and ambulance entrance would not impact nearby noise-sensitive uses and the impact would be **less than significant**.

#### Facilities Mechanical Equipment and Central Utility Plant

Facilities mechanical equipment associated with the operation of similar facilities generally includes HVAC equipment, and various fans, pumps, and compressors that often can be significant noise sources. Mechanical

equipment is often mounted on rooftops, partially enclosed at grade level adjacent to buildings, or located within mechanical equipment rooms or central plants. Noise levels generated by the HVAC and mechanical equipment vary significantly depending on unit size, efficiency, location, type of fan, and orientation of openings.

The primary location for mechanical equipment associated with the proposed project is planned to be rooftop mechanical and within an ancillary support building referred to as the CUP. The CUP building is anticipated to be incorporated as part of the facilities to safely and efficiently provide utility services and infrastructure support to the new Acute Care Hospital Tower and the overall expanded facility at ultimate build out.

The specific types, sizes and locations of the outdoor rooftop mechanical equipment is unknown at this time; however, it would be installed within rooftop parapets and shielded behind mechanical screening. Each outdoor HVAC condenser unit is anticipated to have a sound emission source level of 74 dBA at 3 feet (Johnson Controls 2010). Accounting for the parapet and equipment screening, the noise level emissions are assumed to be reduced by an additional 5 dB. Assuming an attenuation rate of 6 dB per doubling of distance, the rooftop mechanical operational noise levels would be attenuated to below 30 dBA Leq. Noise levels generated from rooftop mechanical equipment is calculated to comply with the City's Code nighttime noise threshold of 45 dBA Leq.

The existing CUP building would remain with some of the existing equipment being demolished within the structure, to be replaced with more modern energy efficient and potentially lower noise generating equipment. The proposed new CUP building would house chillers, infrastructure, and operational equipment for the Medical Center, including but not limited to a hot water boilers, hot water expansion tanks, water softeners, medical air compressors, and other equipment of a similar nature. The new CUP building would be located at the northeast corner of the Acute Hospital Tower, adjacent to the existing cooling towers. As an alternative, a new free-standing CUP building may be constructed at the corner of E. Cleveland Street and Cemetery Lane. The hours of operations for a Central Plant are typically 24 hours per day, 7 days per week to ensure optimum efficiency and the continuous provision of services to the Medical Center. The CUP building is currently proposed to include two (2) natural gas boilers, approximately 10.5 MMbtu./hr., and two (2) natural gas heaters, approximately 6.7 MMbtu./hr. enclosed within the building.

While the specific equipment types, size and operational characteristics for the equipment that would be incorporated in the CUP building is currently unknown, empirical measurement data previously collected provides a basis for noise levels anticipated for support services associated with a larger facility. Reference noise levels associated with boilers/heaters between 10 MMbtu./hr. and 6.7 MMbtu./hr. have been shown to produce sound power levels of approximately 99 dBA Lw, which would equate to a sound pressure level of approximately 63 dBA Leq for each of the operational units and a combined operational noise level of approximately 69 dBA Leq (BBN 1982).

Conservatively assuming an attenuation rate of 6 dB per doubling of distance, not accounting for the shielding that would be provided by the existing and proposed intervening structures, the CUP operational noise levels would be approximately 50 dBA Leq at the setback distance of the nearest existing noise-sensitive receptors. CUP noise levels would have the potential to generate exterior noise levels exceeding the City's nighttime 45 dBA Leq standard at existing nearby noise-sensitive receptors, located approximately 475 feet to the west (setback distance of 434 E. Cleveland St. and 433 E. Wyandotte St.).

Additionally, the lowest hourly Leq noise levels documented during the ambient noise survey at the nearest noise-sensitive receptors was approximately 50 dBA Leq during the monitoring period. With CUP noise levels predicted to be 50 dBA Leq, or less when accounting for shielding provided by intervening structures and building elements of the CUP, operation of the CUP would result in less than a 3 dB increase in the quietest hour experienced in the

existing ambient noise environment. Therefore, operation of the CUP would not result in a significant increase of ambient noise levels due to the proposed project.

Long-term operation of the proposed CUP would not result in a significant increase in the ambient noise environment; however, nighttime operation of the CUP is calculated to result in noise levels of 50 dBA Leq at nearby noise-sensitive receptors which would exceed the City's nighttime noise standards. Thus, noise levels associated with the operations of the CUP mechanical equipment could exceed with the City's nighttime noise standard at nearby existing noise-sensitive receptors, resulting in a **potentially significant impact**.

#### New Generator Building

The project proposes the expansion of the existing emergency generator building with an approximate 3,500 square foot addition for an additional new emergency generator building with a new fuel yard tank. Specific details on the generator building are unknown at this time. Siting and operation of the new generator building addition would be exempt from the City's noise level standards during emergency operations, per Code section 16.60.020 H. Performance testing and maintenance on the emergency generators is allowed to be performed as necessary by law or by the manufacturer; however, the testing period may only be one 30-minute period in seven days and be performed between the hours of 7:00 a.m. and 10:00 p.m. Monday through Saturday. Additionally, City Code requires that all emergency generators be enclosed in a sound absorbing encasement and limits the allowable sound rating to less than 76 dBA  $L_{max}$  at a distance of 23 feet. The new generator building is proposed to fully enclose the proposed new equipment, incorporating air intake louvers, diesel particulate filters and exhaust mufflers. Assuming an attenuation rate of 6 dB per doubling of distance, the emergency generator operational noise levels would be approximately 49 dBA Leq.

Additionally, based on the ambient noise level measurements, the generator noise levels would be below the measured average Leq ambient noise levels and are not anticipated to result in an increase in the ambient noise environment. The lowest hourly Leq noise levels documented at the nearest noise-sensitive receptors was approximately 50 dBA Leq during the monitoring period; and therefore, would not result in a significant increase of ambient noise levels due to the proposed project.

In compliance with the City Code, non-emergency operation of the generators would be performed during daytime hours between 7:00 a.m. and 10:00 p.m. and is therefore evaluated against the City's daytime noise standard of 50 dBA Leq. The proposed generator building addition was calculated to result in noise levels of 49 dBA Leq at the nearby noise-sensitive receptors, without accounting for additional shielding that would be provided by intervening structures on the project site, which would comply with the City's daytime noise standard of 50 dBA Leq. With the lowest existing ambient hourly noise levels of 50 dBA Leq and generator noise levels of 49 dBA Leq or less, the generators would result in an increase of less than 3 dB in the ambient environment. The noise sources associated with the proposed generator building are predicted to comply with the City's daytime noise level standards and ambient increase threshold, as a result the impact would be **less than significant**.

#### Other Operational Stationary Noise Sources

Additional intermittent stationary noise attributable to the long-term operation of the proposed project may include landscape maintenance activities, garbage compaction and waste collection services, and people congregating and talking at various outdoor respite uses. Such noise-generating activities occur infrequently, are generally intermittent in nature, and consistent with other noise events occurring in the community making it infeasible to ascertain potential contributions to the noise environment. Additionally, these sources are expected to be less

intensive than other project-related operational contributions such as parking, mechanical equipment, truck deliveries, and traffic. Therefore, these additional stationary noise sources would be predicted to comply with the City's noise level standards and the impact would be **less than significant**.

### Summary of Impacts

Based on the assumptions outlined within the impact analysis, implementation of the proposed project has the potential to result in long-term operational/stationary-source noise levels that exceed the noise level standards outlined in the City's Municipal Code resulting in a **potentially significant impact**.

### Mitigation Measures

Compliance with Mitigation Measure 4.9-1 would ensure that existing and future noise-sensitive land uses in the project vicinity are not exposed to sound levels substantially higher than existing levels or in excess of City noise thresholds during project construction that occurs outside of the City's allowable hours for construction activities. Compliance with Mitigation Measures 4.9-2 and 4.9-3 would also ensure operational noise associated with the Central Plant and the Parking Structure would demonstrate compliance with the City's noise standards. Compliance with these mitigation measures would ensure noise impacts associated with construction and operation of the project would be reduced to less than significant.

#### MM 4.9-1 Construction Noise

Construction operations performed between 6:30 a.m. and 7:00 a.m. Monday through Friday, weekends and holidays shall comply with the following requirements:

- Equipment shall be operated to minimize banging, clattering, buzzing, and other annoying types of noises, especially near residential and other noise sensitive areas prior to work commencing between 6:30 a.m. and 7:00 a.m. Monday through Friday, weekends and holidays.
  - To the extent feasible, configure the construction site in a manner that keeps noisier equipment and activities as far as possible from noise sensitive locations and nearby buildings.
  - All auditory back-up alarms shall be disarmed and not reactivated until 7:00 a.m. on weekdays, weekends and holidays.
    - Signal persons and strobe lights must be used during periods when the back-up alarms are disarmed.
  - Schedule high noise-producing activities, such as demolition or grading operations/equipment, to only occur between the hours of 7:00 a.m. and 4:00 p.m., weekdays, weekends and holidays, to minimize potential disruption to sensitive uses.
  - Minimize noise-intensive activities/operations between 6:30 a.m. and 7:00 a.m., weekdays, weekends and holidays by doing the following:
    - Plan noisier operations during times of highest ambient noise levels (i.e., daytime hours, 7:00 a.m. to 4:00 p.m.).
    - Keep noise levels relatively uniform; avoid excessive and impulsive noises.
    - Turn off idling equipment.



**MM 4.9-2 Central Utility Plant Operational Noise**

Central Utility Plant operational noise levels shall be minimized through project site design, including the construction of localized barriers, and the use of acoustical absorption materials, as outlined below.

- All mechanical equipment with the potential to generate excessive noise levels shall be fitted with intake and exhaust silencers, or acoustical enclosures sufficient to reduce noise levels to comply with City of Stockton noise standards.
- Mechanical equipment with the potential to generate excessive noise levels shall be located within the Central Utility Plant building wherever possible. Building penetrations such as fresh air intakes shall be fitted with acoustical louvers.
- Noise generating equipment not located within the Central Utility Plant building or within adjacent service yards shall be shielded from direct line-of-sight to nearby noise-sensitive uses (approximately 475 feet to the west and 1,000 feet to the east) through the use of localized noise barriers, rooftop parapets, sound rated mechanical screens or intervening structures.
- The Central Utility Plant and other mechanical equipment shall be located a sufficient distance from nearby noise sensitive receptors (approximately 475 feet to the west and 1,000 feet to the east), so that mitigated noise levels do not exceed City of Stockton noise level performance standards.

**MM 4.9-3 Parking Structure ADA Ingress and Egress Notification System**

The Parking Structure ADA ingress and egress notification system shall be minimized through project site design, including the selection of equipment capable of complying with the City of Stockton noise standards, equipment location, construction of localized acoustic screens, and providing documentation of compliance with the City of Stockton noise standards.

- During equipment specification and selection processes, an auditory notification system capable of either being able to achieve compliance with City noise standards based on the equipment configuration; or,
  - Equipment selection shall place considerable deference to state-of-the-art equipment offering the best available acoustical performance (i.e., equipment configurable to produce the lowest acoustic energy as possible, while still achieving the necessary levels for appropriate notification).
- For equipment specified or selected for inclusion in the Parking Structure ingress and egress notification system that is not capable of being configured and installed in a manner to inherently achieve compliance with the City of Stockton noise standards, documentation shall be provided to the City demonstrating compliance with the City of Stockton noise standards at the nearby noise-sensitive receptors.
  - Demonstration of compliance may be provided through substantial reference sound level data from the equipment supplier/manufacturer, or through consultation with a qualified acoustical consultant.
  - Should it be necessary to retain a qualified acoustical consultant to demonstrate compliance with the City noise standards, or if the manufacturer reference sound level data is deemed incomplete or insufficient, a qualified acoustical consultant shall be retained at the applicants expense to evaluate the manufacturer reference noise level

data, demonstrate and provide documentation to the City that the sound levels produced by the notification system shall comply with City noise standards.

- Should manufacturer sound level data not fully demonstrate compliance with the City noise standards, or if a supplemental analysis is performed post-construction, the sound level testing shall be performed by a qualified acoustical consultant or City Code Enforcement Officer familiar with and capable of documenting the notification system sound levels through the use of a precision integrating sound level meter or measurement platform that meets or exceeds the ANSI standards for type 1 or 2 sound level meters.

#### Impact 4.9-2

**The proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels during construction.**

Construction activities on the project site may result in varying degrees of temporary groundborne vibration or noise, depending on the specific construction equipment used and operations involved. Representative groundborne vibration levels for various types of construction equipment, developed by FTA, are summarized in Table 4.9-10, above. Impact pile driving and blasting is not currently expected to be utilized in the construction of the project. Where more substantial shoring and foundation is necessary, the proposed project is assumed to use pre-drilled or cast in place piles. As shown in Table 4.9-10, heavier pieces of construction equipment, such as a bulldozer that may be used on the project site, have been documented to generate peak particle velocities of approximately 0.089 in./sec PPV or less at a reference distance of 25 feet (DOT 2006).

Groundborne vibration attenuates rapidly, even over short distances. The attenuation of groundborne vibration as it propagates from source to receptor through intervening soils and rock strata can be estimated with expressions found in FTA and Caltrans guidance. It should be noted project construction activities would not include pile driving or other substantial sources of vibration. Using standard FTA vibration attenuation formulas, non-pile driving construction activities would exceed the FTA/Caltrans recommended threshold of significance of 0.2 in./sec PPV at a distance of 15 feet or less. It is unlikely that heavy construction equipment would operate within 15 feet of any sensitive receptor, as buildings associated with the existing sensitive receptors are located approximately 150-feet or more from their respective property lines and project boundaries and construction areas.

It is notable that ground-borne vibrations from construction activities do not often reach the levels that can damage structures or affect activities that are not vibration sensitive, although the vibrations may be felt by nearby persons in close proximity and result in annoyance (FTA 2018). Additionally, the proposed project does not include elements that would generate ground-borne vibration associated with the long-term operation. As such, no vibration-related impacts are identified at any of the nearest sensitive receptors to the project site during project construction and impacts are considered **less than significant**.

### Mitigation Measures

None required.

### Cumulative Impacts

Future development within the City of Stockton, including the proposed project, would affect the future (cumulative) ambient noise environment. The geographic context to evaluate cumulative noise impacts would include future buildout of the City and its sphere of influence (SOI) under the 2040 General Plan. While it is difficult to project exactly how the ambient noise conditions within the area would change, it is known that traffic noise levels would increase

due to the additional traffic generated by the proposed project and other development in the City and the region. In the cumulative scenario, ongoing development in the City and development in the County, would be expected to increase the ambient noise environment in the area as a result of increased traffic volumes, increased residential population and commercial activities.

The primary factor for the cumulative noise impact analysis is the consideration of future traffic volumes. Non-transportation noise sources (e.g., project operation) and construction noise impacts are typically project-specific and highly localized. Construction activities associated with anticipated development within the area would contribute temporarily to the noise levels in the cumulative (2040) ambient noise environment, but in a highly localized and transient manner. As other development occurs in the area, noise from different types of uses (e.g., traffic, aircraft, fixed noise sources) would continue to combine, albeit on a localized basis, to cause increases in overall background noise conditions within the area. As a result, such sources do not significantly contribute to cumulative noise impacts at distant locations and are not evaluated on a cumulative level.

**Impact 4.9-3      The proposed project would not contribute to an increase in cumulative traffic noise exposing project residents to increased noise and exceed City standards.**

The Transportation Technical Memorandum prepared for the proposed project (see Appendix I) evaluated cumulative (2042) plus project traffic volumes and project trip generation rates. Under cumulative plus project conditions, exterior traffic noise levels are predicted to range from approximately 47 to 70 dBA Ldn, as shown in Table 4.9-15. This would result in traffic noise levels remaining in excess of the City's 60 dBA Ldn "normally acceptable" maximum allowable traffic noise threshold at four of the five receptor locations, representing noise-sensitive outdoor activity areas adjacent to roadways, and at the building façade of the Women's & Children's Pavilion. Therefore, exterior traffic noise levels adjacent to roadways in the project vicinity would be a significant cumulative impact.

The contribution of the proposed project to the cumulative plus project scenario would be less than a 1 dB increase, which remains below the City's increase thresholds. The proposed project's contribution to the Cumulative plus Project noise environment would not result in increases in traffic noise levels above the City's 60 dBA Ldn threshold that would be attributable to the proposed project. Therefore, the project's contribution to the cumulative noise impact would not be cumulatively considerable resulting in a **less-than-significant impact**.

**Table 4.9-15. Predicted Cumulative (2042) No Project and Cumulative Plus Project Traffic Noise Levels**

| Roadway              | Segment                                | Cumulative (2042) | Cumulative Plus Project | City Increase Threshold | Net Change | Impact? |
|----------------------|--|-------------------|-------------------------|-------------------------|------------|---------|
| N. California Street | Between Hawthorne St and McCloud Ave   | 60.2              | 60.6                    | 3                       | <1         | No      |
| N. California Street | Between Alpine Ave and Cleveland St    | 60.2              | 60.6                    | 3                       | <1         | No      |
| Cemetery Lane        | North of Maple St                      | 47.3              | 47.5                    | 3                       | <1         | No      |
| E. Harding Way       | Between Hunter St and N. California St | 67.0              | 67.1                    | 3                       | <1         | No      |

**Table 4.9-15. Predicted Cumulative (2042) No Project and Cumulative Plus Project Traffic Noise Levels**

| Roadway        | Segment                               | Cumulative (2042) | Cumulative Plus Project | City Increase Threshold | Net Change | Impact? |
|----------------|---------------------------------------|-------------------|-------------------------|-------------------------|------------|---------|
| E. Harding Way | Between N. California St and Palm Ave | 69.6              | 69.6                    | 3                       | <1         | No      |

Source: Dudek 2022.

Notes: dBA = A-weighted decibels; L<sub>dn</sub> = Day/Night average noise level

\* Traffic noise levels are predicted at prediction receiver locations representing the distance to the outdoor activity area of noise-sensitive land uses adjacent to major roadway segments in the project vicinity and do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

Stationary noise sources associated with the proposed project would be subject to the City's Municipal Code; as such, stationary noise sources would not exceed the City's noise standards. Due to the infrequent and short duration of helicopter noise, sound levels associated with aviation operations at the proposed heliport are not anticipated to combine with or significantly influence the cumulative noise environment. Implementation of the proposed project in combination with past, present and reasonably foreseeable projects<sup>10</sup> in the immediate vicinity would not result in additional cumulatively considerable noise, or ground-borne noise and vibration impacts. The project's contribution to cumulative noise levels and ground-borne noise and vibration impacts would be **less than significant**.

## Mitigation Measures

None required.

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<sup>10</sup> For localized impacts, like noise, reasonably foreseeable projects typically include those with an active application near the project site.

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## 4.10 Public Utilities

### 4.10.1 Introduction

This section analyzes the potential impacts associated with implementation of the St. Joseph's Medical Center of Stockton Hospital Expansion project ("proposed project") on public utilities, including mitigation, if any, that may be needed to reduce such impacts to less than significant. This analysis includes a description of existing water infrastructure, wastewater and storm infrastructure, solid waste, electric power, natural gas, and telecommunications facilities as well as the associated demands the proposed project would place upon these utilities to serve the proposed project.

There were no comments received in response to the Notice of Preparation regarding public utilities. A copy of the Notice of Preparation and comments received are included in Appendix A.

Primary sources references to prepare the analysis include the 2020 Urban Water Management Plan, Stockton District (Cal Water 2021); Preliminary Drainage Report, St. Joseph's Medical Center of Stockton (Morton & Pitalo 2022); Collection System Impacts Technical Memorandum (West Yost 2023); and Existing and Projected Sewer Demand Review and Draft Water Supply Assessment (Appendix H).

### 4.10.2 Environmental Setting

This section describes the existing setting in the City of Stockton (City), including the regulatory setting as it relates to the proposed project.

#### Water Supply

The majority of the central portion of the City is served by the California Water Service Company (Cal Water) with the northern and southern portions served by the City's Municipal Utilities Department. The project site is located within the Cal Water service area and Cal Water would be the water purveyor for the project. Cal Water sources its supplies from a combination of locally produced groundwater and surface water purchased from the Stockton East Water District (SEWD). Cal Water operates 25 groundwater wells, 17 booster pumps, and 8 storage tanks to deliver approximately 22 million gallons of water daily to more than 43,000 service connections (Cal Water 2021). Purchased water comes from the SEWD, which obtains water supplies from the New Hogan Reservoir on the Calaveras River and the New Melones Reservoir on the Stanislaus River. Raw water purchased by Cal Water is treated at SEWD's water treatment plant located east of the city limits. SEWD's water treatment plant has a treatment capacity of 60 million gallons per day (mgd) and currently treats approximately 22 mgd (Cal Water 2021). Cal Water draws an average of 16% of groundwater from the East San Joaquin Subbasin of the San Joaquin Valley Groundwater Basin. The San Joaquin Valley Groundwater Basin is considered to be critically over-drafted; annual overdraft is estimated at 70,000 acre-feet per year (AFY). Cal Water operates 12 water storage facilities with a total capacity of 38.4 million gallons (mg).

The WSA notes that Cal Water has also established interconnections with neighboring water agencies in the event of an isolated interruption of water supply. Cal Water has a total of seven emergency interties. Five of these interties are with the City and two (2) are with SEWD (Appendix H). Cal Water's 2020 Urban Water Management Plan (UWMP) and SEWD's 2020 UWMP both address water reliability, drought and climate change, and future use



of recycled water. Cal Water state's it will meet the project's future water demands from existing supply sources through Year 2045 (Cal Water 2021).

Water is currently provided to the site from multiple points of connection along the following perimeter roads: a 6-inch water main in Cemetery Lane (via the north side of the East Wing building) and also a 6-inch water main in N. California Street. Existing fire hydrants are located at the corners of E. Harding Way, N. California Street, Cemetery Lane and at Maple Street and Cemetery Lane, and McCloud Avenue and Cemetery Lane. A fire hydrant is also located approximately 288-feet north of the intersection of Maple Street and Cemetery Lane.

Table 4.10-1 provides the actual water supply volumes by source for the calendar year 2020 and projected water supplies out to the year 2045 in AFY.

**Table 4.10-1. Actual and Forecast Water Supplies, AFY**

| Source  | 2020 <sup>1</sup> | 2025          | 2030          | 2035          | 2040          | 2045          |
|---|-------------------|---------------|---------------|---------------|---------------|---------------|
| Purchased Water (SEWD; Calaveras and Stanislaus Rivers) | 22,622            | 22,393        | 22,248        | 22,208        | 22,140        | 22,177        |
| Groundwater   | 1,484             | 1,340         | 1,340         | 1,340         | 1,340         | 1,340         |
| <b>Total</b>  | <b>24,106</b>     | <b>23,773</b> | <b>23,588</b> | <b>23,548</b> | <b>23,480</b> | <b>23,517</b> |

**Source:** Cal Water Stockton 2020 UWMP (Cal Water 2021).

**Note:**

<sup>1</sup> Actual for calendar year 2020.

## Wastewater

The City's sewer system includes approximately 914 miles of gravity sewers and force mains (pressure pipelines) ranging from less than 6-inches to 72-inches in diameter and 28 sewer pump stations (City of Stockton 2022a). The sewer system generally flows from the north, east, and south to the Stockton Regional Wastewater Control Facility (RWCF), where it is treated and discharged to the San Joaquin River. The project site is serviced by a 6-inch pipe that feeds into an 8-inch line before connecting to a 12-inch sewer line in N. California Street. The Stockton RWCF consists of a main treatment plant with capacity to treat 48 mgd, and a tertiary treatment plant with a 55 mgd capacity. The tertiary treatment plant includes approximately 630-acres of oxidation ponds, an engineered wetland, disinfection facilities, and a river outfall discharge system. A major upgrade to the RWCF is currently in design that would improve the headworks and secondary treatment system as part of a long-term plan to address rehabilitation and replacement needs while improving treatment reliability and providing capacity to accommodate growth. The facility currently collects and treats an average of 33 mgd of wastewater daily from approximately 116,000 sewer connections throughout the City and nearby San Joaquin County areas (City of Stockton 2022a).

## Stormwater

The City's storm drainage system is currently comprised of approximately 620 miles of 4-inch to 96-inch diameter storm drain lines. Multiple pump stations and lift stations are then used to pump drainage into receiving waters (City of Stockton 2022b). Major receiving waters include Pixley Slough, Bear Creek, Mosher Slough, Five Mile Slough, Calaveras River, Fourteen Mile Slough, Smith Canal, Stockton Deep Water Ship Channel, San Joaquin River, Walker/French Camp Slough, Duck Creek, and North Littlejohns Creek. In general, the northern portion of the City is protected by levees, and drainage is typically pumped into receiving waters. The southern portion of

the City does not have many levees; much of the area is located within Federal Emergency Management Agency-designated flood zones.

The existing Medical Center campus is served by a number of storm drain lines as provided in Chapter 2, Project Description and in the MDP. The project site is served by existing storm drain infrastructure which includes an existing storm drain line (ranging in size from 12-inch in the north to 18-inch in the south) in N. California Street that collects stormwater and conveys it south to a 60-inch storm drain main in E. Harding Way (Morton & Pitalo 2022). In Cemetery Lane, there is an existing storm drain line (ranging in size from 10-inch to 14-inch) that collects stormwater and conveys it south to a 60-inch storm drain main in E. Harding Way. The existing 60-inch storm drain main in East Harding Way collects the stormwater from N. California Street and Cemetery Lane and conveys it to the southwest. Other existing storm drain infrastructure that serves the medical campus includes a 10-inch storm drain line and tie in at N. California Street and Walnut Street; a 12-inch storm drain line in McCloud Avenue; a 10-inch storm drain line, tie-in at N. California Street and E. Hawthorne Street; a 12-inch storm drain line, tie-in at N. California Street and Cleveland Street, and a 10-inch storm drain line, tie-in at Cemetery Lane.

### Solid Waste

Republic Services and Waste Management are responsible for the collection of solid waste within the City. The collected solid waste is transported and disposed of primarily at either the Forward Landfill on South Austin Road in Manteca, or the North County Landfill on East Harney Lane in Lodi. The City generated approximately 372,729 tons of solid waste in 2019 (CalRecycle 2019). Existing landfill capacity and disposal amounts of these two facilities are provided in Table 4.10-2 with both facilities currently showing available capacities.

**Table 4.10-2. Landfill Capacities**

| Facility                                       | Maximum Permit Capacity (cubic yards) | Maximum Daily Permitted Throughput (tons) | Current Remaining Capacity (cubic yards) | Remaining Capacity Date | Cease Operation Date |
|--|---------------------------------------|---|--|-------------------------|----------------------|
| Forward Landfill, Manteca                      | 59,160,000                            | 8,668                                     | 24,720,669                               | 1/31/2020               | 1/1/2036             |
| North County Landfill & Recycling Center, Lodi | 41,200,000                            | 825                                       | 35,400,000                               | 12/31/2009              | 12/31/2048           |

Source: CalRecycle 2022a, 2022b.

Compliance with the state's solid waste diversion requirement is measured in part by comparing actual disposal rates to target rates; actual rates at or below target rates are consistent with the state's diversion requirement (Assembly Bill 939). For 2020, the latest year for which data are available, target disposal rates for the City were 21.0 pounds per day (ppd) per employee; and actual rates were 18.9 ppd per employee; thus, the City's disposal rates in 2020 were consistent with Assembly Bill (AB) 939 (CalRecycle 2022c).

## Electricity

Pacific Gas & Electric (PG&E) provides electricity to the majority of the City with the Port of Stockton supplying electricity its own electricity. PG&E's electricity service area spans most of northern and central California from Humboldt and parts of Shasta and Lassen counties on the north to parts of Santa Barbara and Kern counties on the south. PG&E systemwide total electricity generation in 2020, based on metered generation as of May 2021 was 29,326 gigawatt hours (GWh)<sup>1</sup> which was supplemented with purchased electricity that totaled 24,602 GWh (PG& E 2022a). PG&E electricity resources in 2020 consisted of 33.1% renewable energy, including 13.2% solar and 11.1% wind; 9.3% nuclear; and 5.4% unspecified (PG&E 2022b). Within the vicinity of the project site, electricity is provided by above ground transmission lines on poles.

## Natural Gas

PG&E also supplies the City with natural gas with a main line located east of the project site along N. Sierra Nevada Street. In 2020, natural gas consumption for San Joaquin County totaled approximately 183,949,868 therms of which just 95,147,580 therms were consumed by non-residential uses and the remainder by residential uses (CEC 2022a).

## Telecommunications

AT&T provides telephone services to the Stockton area. Comcast provides cable television services to the City and vicinity; existing cables are generally located on the electrical pole system. These state-regulated franchise utilities are obligated to extend services to new development, as necessary.

# 4.10.3 Regulatory Setting

## Federal Regulations

### Clean Water Act

The federal Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. The CWA made it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit was obtained under its provisions. The CWA assists in the development and implementation of waste treatment management plans and practices by requiring provisions for treatment of waste using best management practices (BMPs) technology before there is any discharge of pollutants into receiving waters, as well as the confined disposal of pollution, so that it will not migrate to cause water or other environmental pollution. Additionally, CWA funds the construction of sewage treatment plants under the construction grants program.

### National Pollutant Discharge Elimination System

The Water Permits Division within the U.S. EPA Office of Wastewater Management leads and manages the National Pollutant Discharge Elimination System (NPDES) permit program. As authorized by the federal CWA, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the U.S. The NPDES permit program oversees stormwater management and sewer and sanitary sewer overflows.

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<sup>1</sup> 1 GWh is equivalent to 1 million kilowatt-hours.

## Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (40 CFR 268, Subpart D), contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs that include federal landfill criteria. The federal regulations address the location, operation, design, and closure of landfills, as well as groundwater monitoring requirements.

## State Regulations

### Urban Water Management Planning Act

The Urban Water Management Planning Act was established in Division 6, Part 2.6 of the California Water Code. The act was developed due to concerns for potential water supply shortages throughout the state. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required as part of the act to develop and implement Urban Water Management Plans (UWMPs) to describe their efforts to promote efficient use and management of water resources. UWMPs are required to be updated every five years. Cal Water has complied with the Urban Water Management Planning Act through the adoption of its 2020 UWMP.

### Senate Bill 610

Senate Bill (SB) 610, enacted in 2001, amended the California Public Resources Code (PRC) and the Water Code to expand requirements for documentation of available water supply in connection with land development approvals. Specifically, SB 610 requires land use agencies with authority over large development projects to document the availability of an adequate supply of potable water and to include this documentation in the California Environmental Quality Act (CEQA) document required for a project. The required documentation is a Water Supply Assessment (WSA), which is to be prepared by the “public water system” that would serve the project area (or, where there is no such public water system separate from the city or county lead agency that provides its own water service). The WSA evaluates the adequacy of the total projected water supplies of the public water system, including existing water supplies and future planned water supplies, to meet the existing and projected future water demands, including future water demands associated with a project. This evaluation is conducted under three hydrologic conditions: a normal precipitation year, a single dry year, and multiple dry years. The WSA requirements apply to projects involving more than 500 residential units (or an amount that is equivalent to a 500 residential unit development), commercial projects employing more than 1,000 persons or having more than 500,000 square feet of floor area, and industrial projects employing more than 1,000 persons, occupying more than 40 acres of land or having more than 650,000 square feet of floor area. The proposed project meets the criteria and has prepared a WSA.

California Water Code Sections 10910-10915 requires that the land use agency request preparation of the WSA from the responsible public water system. WSAs may rely on relevant information from approved UWMPs. For the proposed project, a WSA was prepared by Morton & Pitalo which was reviewed and approved by Cal Water and can be found in Appendix H.

### Senate Bill X7-7

In November 2009, the Legislature enacted, and the Governor signed, Senate Bill X7-7, which created a statewide goal of achieving a 20% reduction in urban per capita water use in California by 2020. Under this statute, urban

water suppliers are required to establish water conservation targets for the years 2015 and 2020. The City's current Urban Water Management Plan (discussed in Local Regulations, below) includes these targets.

### General Waste Discharge Requirements for Sanitary Sewer Systems

The General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems were adopted by the State Water Resources Control Board (SWRCB) in May 2006. These WDRs require local jurisdictions to develop a sewer system management plan (SSMP) that addresses the necessary operation and emergency response plans to reduce sanitary sewer overflows (SWRCB 2006). The WDRs require that the local jurisdiction approve the SSMP. The most recent SSMP for the City is for the period of 2016 to 2020 which was adopted on March 26, 2016.

### Solid Waste Regulations

The California Integrated Waste Management Act (AB 939), enacted in 1989 and subsequently amended, required local jurisdictions to divert at least 50% of their solid waste from landfills by 2000. The 50% recycling of solid waste placed the City in compliance with AB 939. More recent legislation, AB 341, increased the recycling requirement to 75% of solid waste by 2020. Beginning April 1, 2016, the state's Mandatory Organic Waste Recycling law (AB 1826) phased in requirements for including multifamily properties of five (5) or more units, based on the amount and type of waste the business produces weekly, with full implementation in 2019.

Stockton Municipal Code Sections 8.28.020 through 8.28.070 provides the City's Construction and Demolition Debris Waste Reduction Ordinance. The ordinance requires all permit applicants to identify the amount of debris the project would generate and recycle accordingly. Permit applicants for covered projects are required to meet the waste diversion requirement of at least 50% of materials generated as discards by the project, regardless of whether the permit applicant performs the work or hires contractors, subcontractors, or others to perform the work.

### California Medical Waste Management Act

California Health and Safety Code Sections 117600-118360, last updated September 2015, is known as the Medical Waste Management Act (MWMA) and regulates the proper handling, storage, treatment, and transportation of medical waste. The MWMA outlines requirements for small and large generators of medical waste, including registration as a medical waste generator and payment of annual permit fees, as well as completion of a Medical Waste Management Plan. Additionally, the MWMA regulates medical waste haulers and medical waste treatment facilities.

### California Energy Code

California has adopted comprehensive energy efficiency standards as part of its Building Standards Code, California Codes of Regulations, Title 24. Part 6 of Title 24, also known as the California Energy Code, contains energy conservation standards applicable to all residential and non-residential buildings throughout California, including schools and community colleges. These standards are occasionally updated. The California Energy Commission estimated that the implementation of the 2019 California Energy Code may reduce statewide annual electricity consumption by approximately 53% compared to the earlier 2016 code and reduce greenhouse gas emissions by 700,000 metric tons (CEC 2018). The City has adopted the 2019 version of the California Energy Code as part of its building codes.

## California Green Building Standards Code

In 2009, the California Building Standards Commission adopted a voluntary Green Building Standards Code, also known as CALGreen. In January 2010, the Commission made CALGreen mandatory, effective January 1, 2011, and it has since been incorporated in the state's Building Standards Code, California Codes of Regulations, Title 24. Part 11. CALGreen sets forth mandatory energy efficiency measures for nonresidential structures, which essentially require compliance with the latest building energy efficiency measures adopted by the state. The City has adopted the 2019 CALGreen standards.

## Renewables Portfolio Standard

In 2002, California adopted a Renewables Portfolio Standard, and subsequently modified it in 2006 and 2011. Under the 2011 modifications, all electricity retailers in the state must generate 20% of electricity they sell from renewable energy sources (i.e., solar, wind, geothermal, hydroelectric from small generators, etc.) by the end of 2013, 25% by the end of 2016, and 33% by the end of 2020. As of the end of 2021, California derived 33.6% of its electricity from renewable sources, which matches the 2020 target and within 7% of the 2030 target (CEC 2022b). In 2015, SB 350 was signed into law, which increased the electricity generation requirement from renewable sources to 50% by 2030. Most recently, in 2018, SB 100 was enacted. SB 100 accelerated the schedule for 50% electricity generation from renewable sources to 2026 and set a goal of 60% electrical generation from renewable sources by 2030. It also set the goal that zero-carbon resources will supply 100% of electricity to California by 2045.

## Local Regulations

### Wastewater Master Plan Update

The City adopted its Wastewater Master Plan Update in October 2022 (Master Plan Update) based on completion of the City's Envision Stockton 2040 General Plan. The plan describes the major elements of the wastewater collection system and treatment facilities needed to serve development anticipated according to the 2040 General Plan. The Master Plan Update also evaluates existing wastewater collection system infrastructure, to address potential impacts of near-term and long-term planned growth, and to develop a comprehensive road map for the City's wastewater system Capital Improvement Program. The wastewater system was divided into ten (10) existing sub-collection systems and four (4) future sub-collection systems. According to the Master Plan Update, modeled system deficiencies for 2040 conditions are only slightly more severe than those shown above for existing conditions (West Yost 2023).

### Water Master Plan Update

The City adopted its Water Master Plan in 2008 which was then updated in 2021 as part of the completion of the City's Envision Stockton 2040 General Plan (West Yost 2021). The plan describes the major elements of the City's potable water system needed to serve development anticipated in the 2040 General Plan. The Water Master Plan Update evaluated the existing and future needs of the City's water system overall. The plan includes recommended capital improvements based on key assumptions on the timing, type, and extent of future development projects within the City of Stockton Municipal Utilities Department (COSMUD) North Stockton and South Stockton water service areas. Before COSMUD proceeds with the design and construction of recommended water system improvements, future development plans and associated water system facility capacity needs would be reviewed and confirmed. (West Yost 2021).



## Storm Drain Master Plan and Supplement

The City adopted its Storm Drain Master Plan in 2008 and has recently completed an update to the Storm Drain Master Plan that is scheduled to be adopted sometime in 2023. The plan defines a process and criteria for future detailed sub-watershed storm drain planning in growth areas within the City's 2035 General Plan boundary. A supplement to the Storm Drain Master Plan was prepared in 2017 based on anticipated development in the Stockton General Plan 2040. The supplement evaluated the future needs of the City's storm drainage system overall, including detention basins and pump stations (West Yost 2017c). The supplement did not compare storm drainage system requirements for buildout under the General Plan 2040 as compared to buildout under the 2035 General Plan.

## Stockton Municipal Building Code – Title 8 Chapter 8.28

Chapter 8.28 of Title 8 Health and Safety provides the City's requirements for construction and demolition debris waste reduction measures. This chapter sets a requirement that 50% or more (by weight) of the amount of construction and demolition debris generated at project sites be reused, recycled or otherwise processed to divert such materials from disposal in landfills. Any party that undertakes a construction, demolition, or renovation project by applying for City permits is responsible for meeting the construction and demolition debris waste diversion requirement (Ord. 010-08 C.S. Section 2, prior code Section 7-081).

## Envision Stockton 2040 General Plan

The City's 2040 General Plan goals and policies and implementing actions from the Land Use, Safety, and Community Health Elements are relevant to this project (City of Stockton 2018):

Goal LU-5. Protected Resources. Protect, maintain, and restore natural and cultural resources.

Policy LU-5.4. Require water and energy conservation and efficiency in both new construction and retrofits.

Action LU-5.4.A. Require all new development, including major rehabilitation, renovation, and redevelopment, to adopt best management practices for water use efficiency and demonstrate specific water conservation measures.

Action LU-5.4.B. Require all new development, including major rehabilitation, renovation, and redevelopment, to incorporate feasible and appropriate energy conservation and green building practices, such as building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.

Goal LU-6. Effective Planning. Provide for orderly, well-planned, and balanced development

Policy LU-6.3. Ensure that all neighborhoods have access to well-maintained public facilities and utilities that meet community service needs.

Action LU-6.3.A. Require development to mitigate any impacts to existing sewer, water, stormwater, street, fire station, park, or library infrastructure that would reduce service levels. [See also Chapter 15.0, Public Services.]

Action LU-6.3B. Ensure that public facilities, infrastructure, and related land area and other elements are designed and right-of-way is acquired to meet 2040 planned development requirements to avoid the need for future upsizing or expansion, unless planned as phased construction.

Goal LU-4. Clean Air. Improve local air quality

Policy SAF-4.1. Reduce air impacts from mobile and stationary sources of air pollution.

Action SAF-4.1.A. Require the construction and operation of new development to implement best practices that reduce air pollutant emissions, including through installation of Energy Star-certified appliances.

Goal CH-5. Sustainability Leadership. Exhibit leadership in sustainability for the Central Valley and beyond.

Policy CH-5.2. Expand opportunities for recycling, re-use of materials, and waste reduction.

Action CH-5.2.B. Continue to require recycling in private and public operations, including construction/demolition debris.

## 4.10.4 Impacts and Mitigation Measures

### Methods of Analysis

The analysis evaluates development of the “Initial Expansion” (Phases 1–4), which would include construction of the new Acute Care Hospital Tower, related support buildings, the new Parking Structure, and future “Phase 5 Expansion,” (Phase 5) which includes up to 150,000 square-foot expansion of the Acute Care Hospital Tower.

### Water

The analysis related to water supply demands for the proposed project were compared to existing water demands of the existing facility from the 2019–2020 (August to July) period since the more recent data of 2020–2021 was not considered representative due to the effects of the COVID-19 pandemic. The estimated water demand for the project is based on typical demand rates for similar land uses on a gallons per day (gpd), per hospital bed standard (350 gpd per bed) as well as a rate for typical emergency department exam/bay support spaces (144 gallons per exam sink per day). For the proposed new Parking Structure, new Central Utility Plant, new Generator building, and new Plant Maintenance building, water demands were based on number of employees per building and lavatory facilities (one restroom) per building, including the Parking Structure and periodic washing of the parking structure floors. A presumption of water system leakage is also factored into the WSA. Water demands for future Phase 5 development is included and shown separately. The estimated project demands are provided in Table 4.10-3.

**Table 4.10-3. Projected Project Water Demands by Structure plus Irrigation**

| Facility   | Future Water Demand |                    |                 |
|--|---------------------|--------------------|-----------------|
|  | Gallons per Year    | Acre-Feet per Year | Gallons per Day |
| <b>Phases 1-4</b>                                    |                     |                    |                 |
| Parking Structure and Heliport(s)                    | 202,395             | 0.62               | 555             |
| Acute Care Hospital Tower                            | 21,823,000          | 67.02              | 59,789          |
| Support Services for Tower                           | 32,762,880          | 100.61             | 89,761          |
| Central Utility Plant                                | 343,954             | 1.06               | 942             |
| Generator Building                                   | 16,148              | 0.05               | 44              |
| Plant Maintenance Shop                               | 51,860              | 0.16               | 142             |
| Irrigation   | 479,787             | 1.47               | 1,314           |
| <b>Total Phases 1-4</b>                              | <b>55,680,024</b>   | <b>170.99</b>      | <b>152,547</b>  |
| <b>Phase 5 Expansion - Acute Care Hospital Tower</b> | <b>23,677,920</b>   | <b>72.71</b>       | <b>64,871</b>   |
| <b>Total with Phase 5</b>                            | <b>79,357,944</b>   | <b>243.7</b>       | <b>217,419</b>  |

Source: Appendix H.

### Wastewater

Sewer demand was also based on actual water usage for 2019–2020 and estimated plumbing fixtures, mechanical equipment, and medical processes (Appendix H). In addition, the demand was based on estimated plumbing fixtures, mechanical equipment, and medical processes and are provided in Table 4.10-4 which includes Phase 5 Expansion of the Acute Care Hospital Tower. Phases 1–4 would result in a conveyance and treatment demand of approximately 165.08 gallons per minute (gpm) with an additional 6.23 gpm for construction. With the addition of Phase 5 this would increase to 214.71 gpm, as shown in Table 4.10-4. Restroom facilities would be associated with the Parking Structure and the Generator building, whereas the Make-Ready Project is associated with the use of modular buildings and trailers that would be used for construction phases only. These values were used to assess the pipe sizing needs of the proposed improvements.

**Table 4.10-4. Projected Sewer Demands per New Building**

| Facility                               | Rate                               | Demand Gallons per Minute |
|--|------------------------------------|---------------------------|
| <b>Phases 1-4</b>                      |                                    |                           |
| Parking Structure                      | Domestic Use - 20 gpm/1,000 sq.ft. | 22.22                     |
|  | Washdown - 0.02 gpm/sq.ft.         |                           |
| Acute Care Hospital Tower              | 500 gal/bed/day                    | 125                       |
| Central Utility Plant                  | 250 gpd/sq.ft.                     | 9.58                      |
| Generator Building                     | 100 gpd/1,000 sq.ft.               | 0.48                      |
| Plant Maintenance Shop                 | 250 gpd/1,000 sq.ft.               | 7.8                       |
| <b>Total Phases 1-4</b>                | <b>1,684</b>                       | <b>165.08</b>             |
| Make-Ready Project (Construction only) | 86                                 | 6.23                      |

**Table 4.10-4. Projected Sewer Demands per New Building**

| Facility                                      | Rate            | Demand Gallons per Minute |
|---|-----------------|---------------------------|
| Phase 5 Expansion – Acute Care Hospital Tower | 500 gal/bed/day | 43.40                     |
| <b>Total with Phase 5</b>                     | –               | <b>214.71</b>             |

Source: Appendix H.

For the purposes of analyzing the capacity of existing off-site infrastructure to accommodate the flows of the proposed improvements, a sewer capacity study was prepared for the proposed project (Appendix H). The study modeled the average and peak flows of the proposed project which were based on the sewer demand study and compared with the new water demands that were adjusted according to flow meter results from two locations in Wyandotte Street and Tuxedo Avenue. Although considered to be highly conservative, the sewer capacity study used an average wastewater flow value based on the full water demand of 217,419 gallons per day (150.69 gpm) owing to the fact that the wastewater flows cannot exceed the water demands.

### Solid Waste Disposal

Solid waste disposal that has been estimated for the project includes an estimated rate based on CalRecycle guidance for hospital land uses on a 16 pound per day per bed basis (CalRecycle 2022d). The project would include 24 new intensive care beds and 120 acute care beds with an additional 50 beds associated with Phase 5 for a total of 194 beds which would equate to 2,304 pounds per day or 840,960 pounds a year (420.48 tons).<sup>2</sup> For construction debris, the amount of waste and debris produced is estimated based on guidance from the US Environmental Protection Agency of 3.89 pounds per square foot (sf) of construction (Franklin Associates 1998). Solid waste generated during construction and operation of the project is shown in Table 4.10-5.

**Table 4.10-5. Projected Solid Waste Disposal**

| Phase                                | No./Size         | Rate          | Total Solid Waste (tons) |
|--------------------------------------|------------------|---------------|--------------------------|
| <b>Construction</b>                  |                  |               |                          |
| Phases 1–4                           | 1.186 million sf | 3.89 lb/sf    | 2,307                    |
| Phase 5                              | 150,000 sf       | 3.89 lb/sf    | 292                      |
| Demolition                           | 90,068 sf        | 155 lb./sf    | 6,980                    |
| <b>Construction/Demolition Total</b> | –                | –             | <b>9,579</b>             |
| <b>Operation</b>                     |                  |               |                          |
| Acute Care Hospital Tower            | 194 beds         | 16 lb/day/bed | 1,132,960 lb/year        |

Source: CalRecycle 2022d.

<sup>2</sup> Note that this rate for hospital land use is assumed to include ancillary buildings such as those that would be associated with the proposed project. There are no rates available for the ancillary buildings to quantify the increase in solid waste.

## Thresholds of Significance

A significant impact would occur if development of the proposed project would do any of the following:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- 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.
- 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.
- Conflict with any federal, state, and local management and reduction statutes and regulations related to solid waste.

## Project Impacts

**Impact 4.10-1      The proposed project would not require the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities resulting in environmental effects.**

## Water Facilities

### Phases 1-4

The proposed project would tie into existing water service lines which serve the existing medical campus. Water is currently provided to the site from multiple points of connection along the following perimeter roads: a 6-inch water main in Cemetery Lane (via the north side of the East Wing building) and also a 6-inch water main in N. California Street. Chilled water is provided from an on-site water tower.

According to an evaluation of the water demand for the proposed project, the increase in water demand to supply the new buildings along with adequate fire flow would be supplied by a minimum 6-inch water line that would tie into the existing 6-inch water main in Cemetery Lane and the 6-inch water main in N. California Street (Appendix H). The project includes new on-site connections to serve the new buildings, in addition, new fire hydrants would be required to be located along Maple Street, E. Cleveland Street, and N. California Street. Tie-ins to the existing water mains would require construction of a new waterline in Maple Street between the existing 6-inch waterlines in N. California Street and Cemetery Lane within existing rights-of-way. The project also includes construction of a 12,000-gallon underground water storage tank for emergency situations. The direct and indirect Impacts associated with the construction of water infrastructure to serve the proposed project are evaluated in other sections of this EIR. Project construction would occur in accordance with all applicable regulatory requirements.

### Phase 5

Phase 5 of the project would further expand the Acute Care Tower building resulting in an increase in water demand, as shown in Table 4.10-3. This increase may require additional tie-ins or upgrades to the water lines serving the existing structure. As discussed above, project construction would occur in accordance with all applicable regulatory requirements.

Therefore, impacts associated with the relocation or construction of new water facilities under Phases 1-4 and 5 would be **less than significant**.

### Wastewater Conveyance Facilities

#### Phases 1-4

The wastewater infrastructure serving the existing medical campus is owned and operated by the City. The project site is serviced by a 6-inch sewer pipe located in McCloud Avenue. Based on the sewer Demand Analysis prepared for the project (Appendix H) the project would generate a total of approximately 165 gpm, as shown in Table 4.10-4. The proposed project would require a minimum 8-inch line to service the proposed increase in sewer demand (Capital 2022). Therefore, the additional peak flow from the new improvements would likely exceed the capacity limits for the existing 6-inch main and require an upgrade. The new connections would tie into the existing sewer line in E. Cleveland Street. The project would also require two back-up underground wastewater storage tanks of approximate capacity of 10,000 and 25,000 gallons to be consistent with SB 1953. However, the direct (e.g., soil disturbance and excavation) and indirect impacts (e.g., air emissions) associated with the construction of on-site sewer connections to serve the project are discussed and accounted for in the construction analysis contained in other sections of this EIR.

#### Phase 5

The estimated sewer demand under the Phase 5 improvements including just the Acute Care Tower expansion would be an approximate 43.40 gpm or 0.0625 mgd. This rate would require service by an 8-inch line and may require new tie-ins or an upgrade in the sewer main servicing the structure. However, as discussed above, all project construction would be in accordance with applicable regulatory requirements and direct and indirect impacts associated with any necessary connections are discussed and accounted for in the construction analysis of other sections of this EIR.

Project construction would occur in accordance with all applicable regulatory requirements including the City's requirements for sewer service. Therefore, impacts associated with the relocation or construction of wastewater conveyance facilities under Phases 1-4 and 5 would be **less than significant**.

### Wastewater Treatment Facilities

As discussed above in the Environmental Setting, wastewater in the City is treated at the Stockton RWCF which has a treatment capacity of 48 mgd. The facility currently collects and treats an average of 33 mgd. According to the sewer capacity analysis prepared for the proposed project (Appendix H), the project was conservatively estimated to generate an average flow value of 0.217 mgd with a peak flow of 0.33 mgd. Thus, the project would contribute only 0.33 mgd to the RWCF for treatment with a 15 mgd available capacity. Given the remaining capacity of the treatment plant, there is sufficient capacity to adequately accommodate the project's contribution of wastewater. As such, no improvements to the RWCF would be required to accommodate the sewer treatment demands of the project and impacts would be **less than significant**.

### Stormwater Drainage Facilities

The City's storm drainage system is currently comprised of approximately 620 miles of 4-inch to 96-inch diameter storm drain lines. The existing medical campus is largely developed and predominantly covered in impervious surfaces with the exception of small, landscaped areas. Under existing conditions, the storm drain infrastructure includes an existing storm drain line (ranging in size from 12-inch in the north to 18-inch in the south) in N. California



Street that collects stormwater and conveys it south to a 60-inch storm drain main in E. Harding Way (Morton & Pitalo 2022). In Cemetery Lane, there is an existing storm drain line (ranging in size from 10-inch to 14-inch) that collects stormwater and conveys it south to a 60-inch storm drain main in E. Harding Way. The existing 60-inch storm drain main in E. Harding Way collects the stormwater from N. California Street and Cemetery Lane and conveys it to the southwest. According to the Preliminary Drainage Report, the proposed project would, at full buildout, have less impervious surface area than it does currently under existing conditions (from 88% to 87%) with implementation of required Low Impact Development (LID) features such as grassy swales and proprietary devices (Morton & Pitalo 2022). As a result, increases to the peak storm flow rates are not anticipated.

However, there would be a need to construct new drainage control features within the project site to serve the new development. The direct and indirect impacts associated with construction of the proposed storm drain improvements are considered to be part of building construction which is already evaluated in other sections of this EIR. The project would not require the relocation or installation of off-site storm drain facilities to serve the project; therefore, impacts associated with the need to relocate stormwater drainage facilities would be **less than significant**.

### Electric Power, Natural Gas, and Telecommunications

Upgrades would be required with respect to electric power, natural gas, and telecommunication facilities to facilitate the proposed project. These utilities would be part of a dry utility package that would be installed on site and connect with existing infrastructure to provide service to the project. Upgrades would be confined to the connections within the existing medical campus and would also include a combined mechanical trench within Cemetery Lane. The existing feeder infrastructure is located within and directly adjacent to the campus and within public streets. Connection to these existing utilities would require limited construction, which would be temporary. Project construction would occur in accordance with all applicable regulatory requirements. The project would not require new or expanded dry utilities that would result in environmental effect that have not previously been evaluated in other sections of this EIR. Therefore, impacts would be **less than significant**.

### Mitigation Measures

None required.

**Impact 4.10-2      The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.**

Development of the proposed project would increase water demand for construction and operation of the proposed facilities and other associated improvements. The WSA prepared for the project, and approved by Cal Water, determined that the existing medical facility has a total water demand of approximately 150.5 AFY (Appendix H). The proposed project would increase the operational demand by approximately 243.6 AFY (79,357,944 gallons per year) for a new total of 394 AFY (128,379,230 gallons per year). This water demand does not include water used for construction which would be needed for dust control and other construction needs. However, this water demand would be relatively low compared to what full buildout operational demand would be and so is considered negligible.

According to the City's 2020 UWMP, the total potable and non-potable water supplies for Cal Water over the previous 5 years prior to the 2020 UWMP averaged approximately 23,260 AFY (Appendix H, per Table 4-1 of the 2020 UWMP). Based on the 2020 UWMP, in 2020 Cal Water produced a total of 24,106 acre-feet, of which 1,484 acre-feet was produced from local groundwater sources, and 22,622 acre-feet was purchased from the SEWD. Over the past several years, Cal Water's local groundwater has accounted for approximately 16% of the overall demand,

with purchased water accounting for the remaining 84% of the overall demand. Future demand projections assume approximately the same percentage distribution between groundwater and purchased water supplies. The anticipated drinking water quantities are projected to remain relatively consistent as future demands increase slightly through the planning horizon of year 2045. The analysis of existing and projected water supplies versus demands determined that there is sufficient water supply for Cal Water to meet the proposed project’s demand in addition to the existing demands for the next 20+ years (Appendix H).

The WSA also evaluated the reliability of Cal Water’s water supplies in normal (average), single-dry, and multiple-dry year scenarios. Cal Water purchases treated water from the Stockton East Water District and pumps groundwater from wells located within its service area in the Eastern San Joaquin Subbasin. As indicated in Tables 4.10-6 through 4.10-8 below, Cal Water is projected to meet its projected demand for normal, single-dry, and multiple-dry years (Appendix H). In addition, the 2020 UWMP includes a Water Shortage Contingency Plan in the event of a water shortage event or supply disruption, specific policies and actions would be implemented at various shortage level scenarios to ensure necessary water resources to protect human health and safety. The project also includes construction of a 12,000-gallon underground water storage tank for emergency situations which has been accounted for in the project’s overall water demand. Lastly, the project would be constructed in compliance with the California Green Building Standards also known as CalGreen and include water conservation measures to reduce water consumption 25% by 2030. The CalGreen standards include regulations for water efficiency and conservation that are continually updated and adapted based on new legislation and changing conditions. In addition, St. Joseph’s Medical Center includes energy efficiency and renewable energy goals to reduce water consumption including installation of smart meters for landscape irrigation and installation of sub-meters to identify other opportunities for conservation. A list of the project’s proposed conservation methods is provided in Chapter 2, Project Description.

**Table 4.10-6. Normal Year Supply and Demand Comparison - Purchased and Groundwater**

|                      | 2025   | 2030   | 2035   | 2040   | 2045   |
|----------------------|--------|--------|--------|--------|--------|
| Supply Totals        | 23,733 | 23,588 | 23,548 | 23,480 | 23,517 |
| Demand Totals        | 23,733 | 23,588 | 23,548 | 23,480 | 23,517 |
| Difference (surplus) | 0      | 0      | 0      | 0      | 0      |

Source: California Water Service Stockton District 2020 UWMP (Table 7-2) Appendix H.

**Table 4.10-7. Single-Dry Year Supply and Demand Comparison - Purchased and Groundwater**

|                      | 2025   | 2030   | 2035   | 2040   | 2045   |
|----------------------|--------|--------|--------|--------|--------|
| Supply Totals        | 24,377 | 24,230 | 24,191 | 24,123 | 24,164 |
| Demand Totals        | 24,377 | 24,230 | 24,191 | 24,123 | 24,164 |
| Difference (surplus) | 0      | 0      | 0      | 0      | 0      |

Source: California Water Service Stockton District 2020 UWMP (Table 7-3) Appendix H.

**Table 4.10-8. Multiple Dry Year Supply and Demand Comparison - Purchased and Groundwater**

|             |                      | 2025   | 2030   | 2035   | 2040   | 2045   |
|-------------|----------------------|--------|--------|--------|--------|--------|
| First Year  | Supply Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Demand Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Difference (surplus) | 0      | 0      | 0      | 0      | 0      |
| Second Year | Supply Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Demand Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Difference (surplus) | 0      | 0      | 0      | 0      | 0      |
| Third Year  | Supply Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Demand Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Difference (surplus) | 0      | 0      | 0      | 0      | 0      |
| Fourth Year | Supply Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Demand Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Difference (surplus) | 0      | 0      | 0      | 0      | 0      |
| Fifth Year  | Supply Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Demand Totals        | 24,776 | 24,627 | 24,589 | 24,521 | 24,564 |
|             | Difference (surplus) | 0      | 0      | 0      | 0      | 0      |

**Source:** California Water Service Stockton District 2020 UWMP (Table 7-4) Appendix H.

To understand the potential environmental impacts of supplying water to serve the project through buildout and long-term operation the discussion needs to include the role climate change is playing in water availability and the increasing frequency of variable water years (e.g., from extreme droughts to atmospheric rivers) and anticipated reduction in Sierra snowpack. As water purveyor's, SEWD and Cal Water are incorporating climate change adaptation into their planning and operations to understand future effects on water supply and availability. The SEWD UWMP addresses the issue of climate change on water supplies and relies on the 2019 Eastern San Joaquin Groundwater Sustainability Plan (2019, updated June 2022) which indicates that "[w]ater reliability is not expected to be significantly impacted by climate change ... and climate change would cause an overall increase in precipitation. However, this is not expected to impact total water supplies to SEWD." The Eastern San Joaquin Groundwater Sustainability Plan stated that "[d]espite there being higher flows in streams, the monthly timing of flows meant that surface water diversions were not expected to change due to both availability of water in the streams and water rights agreements limiting diversion months". The Plan goes on to state that "[t]emperatures would also increase potentially reducing snowpack storage. This would particularly impact New Hogan Dam, since the watershed is at a relatively low elevation, and relies largely on rainfall runoff. While New Melones reservoir could be impacted by a reduction in snowpack storage, SEWD also plans to increase recharge of high flows, helping to offset any potential impacts to the timing of water supplies." (SEWD 2021). In 2016 Cal Water released a report, Potential Climate Change Impacts on the Water Supplies of California Water Service, to better understand climate change in areas relevant to Cal Water's system. Building on that report, Cal Water is in the process of completing a Climate Change Assessment and Adaptation Framework to analyze the relationships between climate hazards, climate indicators available in climate science, and Cal Water's system and key functions. Presumably, the effects of climate change on surface water resources, including the Calaveras and Stanislaus rivers will be further evaluated by SEWD and Cal Water as they develop resiliency and adaptation plans to plan for periods of more prolonged drought and changes in water supplies.

Therefore, considering that the 2020 UWMP shows an ability to meet projected growth for normal, dry, and multiple-dry years; includes a Water Shortage Contingency Plan; and the proposed project would be constructed consistent with CalGreen, the potential impact related to water supplies is considered **less than significant**.

### Mitigation Measures

None required.

**Impact 4.10-3      The proposed project would not result in a determination by the wastewater treatment provider, that it does not have adequate capacity to serve the project's projected demand in addition to existing commitments.**

As discussed above, the Stockton RWCF has a capacity of 48 mgd. The facility currently collects and treats an average of 33 mgd. The proposed project is estimated to generate approximately 215 gallons per minute or 0.31 mgd of wastewater (Appendix H). In addition, the project would include construction of two (2) back-up wastewater storage tanks, with approximate capacity of 10,000 and 25,000 gallons, in the event of disruption of utility service. Given the remaining capacity of the treatment plant, there is sufficient capacity to adequately accommodate the project's contribution of wastewater and the back-up storage tanks would provide contingency operation in the unlikely event of service disruption. Therefore, the RWCF would have sufficient capacity to accommodate the sewer demand of the project in addition to existing commitment and impacts would be **less than significant**.

### Mitigation Measures

None required.

**Impact 4.10-4      The proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.**

Solid waste in the City is collected by Republic Services and Waste Management. The collected solid waste is transported and disposed of primarily at either the Forward Landfill on South Austin Road in Manteca, or the North County Landfill on East Harney Lane in Lodi. In 2019, the City generated approximately 372,729 tons of solid waste (CalRecycle 2019). As shown in Table 4.10-2, capacities of both of these facilities are currently showing ample capacity (over 24 million tons at Forward Landfill and over 35 million tons of capacity at North County) to accommodate additional solid waste.

The proposed project would generate solid waste associated with construction activities as well as from project operation. For construction debris, the total estimated amount of solid waste and debris associated with construction and demolition for Phases 1-4 and 5 is estimated to be 9,579 tons, as shown in Table 4.10-5.

During project construction where demolition activities are required, concrete, metal, and wood scraps would be sorted on site for recycling. The City's Construction and Demolition Debris Waste Reduction Ordinance Municipal Code Sections 8.28.020 through 8.28.070, requires that all permit applicants identify the debris the project would generate and recycle accordingly.

Solid waste from project operation would be generated by the proposed facilities and maintenance activities along with green waste from landscaping. Based on generation rates for hospital land uses, the proposed 24 new intensive care beds and 120 acute care beds plus an additional 50 beds with Phase 5 would result in a total solid

waste generation of approximately 3,104 pounds per day or 1,132,960 (566.48 tons) (CalRecycle 2022d). To minimize the amount of solid waste generated by the proposed project, the project would be required to meet the waste diversion requirement of at least 50% of materials generated as discards, regardless of whether the permit applicant performs the work or hires contractors, subcontractors, or others to perform the work.

All solid waste would first undergo sorting at the receiving landfill to capture any recyclable materials and the remaining waste would then be disposed of at the landfill. Medical or bio-hazardous waste generated at the project site would be collected on-site and picked up by a licensed contractor for proper disposal in accordance with current practices, which include appropriate packaging, labeling, and record tracking. Bio-hazardous waste is typically treated at an incineration or autoclave facility, rendered non-infectious and disposed of in accordance with federal, state, and local regulations. The two landfills currently have capacities that are projected to be able to continue accepting waste materials until 2036 (Forward Landfill) and 2048 (North County Landfill) under current projected development conditions. Because there is adequate capacity at both facilities to accommodate solid waste generated by the proposed project and the project would not generate solid waste in excess of state or local standards or exceed the capacity of the landfills that serve the City or impair the attainment of solid waste reduction goals, the impact would be **less than significant**.

#### Mitigation Measures

None required.

**Impact 4.10-5      The proposed project would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste.**

The proposed project would comply with all federal, state, and local statutes that relate to the disposal and recycling of solid waste and medical waste. As discussed above, project construction would be required to ensure recycling, storage and disposal of all construction debris occurs in compliance with relevant federal, state, and local statutes. Operation of the project as it relates to solid waste management would be conducted similarly to existing operations, which are consistent with all federal, state, and local regulatory requirements. Medical waste generated by the proposed project would be disposed of in accordance with the requirements of the Medical Waste Management Act. As a generator of medical waste, the existing facility is already required to register with the California Department of Public Health and has filed a Medical Waste Management Plan. Additionally, the Medical Center would be required to update its existing Hazardous Materials Business Plan (HMBP), which would include basic information about the location, types, quantities, and health risks of hazardous materials stored, used, or disposed of at the site, as well as information about employee training and emergency response plans in relation to the project's expanded facilities. The Medical Waste Management Plan and the HMBP would be prepared or updated and would include a complete list of the quantities and locations of the hazardous materials on site, as well as procedures and training for proper handling, storage, and disposal of these materials in compliance with all applicable laws and regulations. Therefore, the potential impact related to compliance with federal, state and local management and reduction statutes is considered **less than significant**.

#### Mitigation Measures

None required.

## Cumulative Impacts

The geographic scope considered for analysis of cumulative impacts would vary based upon the utility. For water supply, the geographic scope would be the watershed that supplies water to SEWD. For wastewater conveyance and stormwater facilities, it would be the City. Wastewater treatment would be the same as the project analysis which focused on the Stockton RWCF and its service area. The geographic scope for solid waste would be the service area of the regional landfills. The service areas of PG&E and the telecommunication providers would be the geographic scope for the dry utilities.

Impact 4.10-6      **The proposed project, when combined with past, present and reasonably foreseeable future projects, would not result in cumulatively considerable impacts related to utilities and service systems.**

### Water Supply

Development of the proposed project, combined with cumulative projects located within the Cal Water service area, could increase water supply demands for different areas of the City. As discussed above, the anticipated water demands within the area supplied by Cal Water are projected to remain relatively consistent as future demands increase slightly through the planning horizon of year 2045. The analysis of existing and projected water supplies versus demands in the 2020 UWMP determined that there is sufficient water supply for Cal Water to meet the proposed project's water demand in addition to their other existing and projected demands for the next 20+ years. Cal Water obtains its water supply from a combination of groundwater and surface water purchased from SEWD. SEWD obtains its water from either the New Hogan Reservoir on the Calaveras River or the New Melones Reservoir on the Stanislaus River. Under its agreements with US Bureau of Reclamation, SEWD is guaranteed 56.5% of the yield of New Hogan Reservoir and has an entitlement of 75,000 acre-feet per year (AFY) from New Melones Reservoir (Cal Water 2021). As a consequence of growth in the City of Stockton, Cal Water's share of SEWD treated water is projected to decline in the future. However, Cal Water plans on maximizing the use of SEWD purchased water to meet year-round demands such as using SEWD water during summer months to reduce demands on the groundwater basin in the Stockton area (Cal Water 2021). Overall, the amount of purchased water from SEWD is projected to be relatively stable with only a minor decline from 22,393 AF in 2025 to 22,177 AF in 2045 (Cal Water 2021). The 2019 Eastern San Joaquin Groundwater Sustainability Plan (updated June 2022) indicates that "[w]ater reliability is not expected to be significantly impacted by climate change ... and climate change would cause an overall increase in precipitation. However, this is not expected to impact total water supplies to SEWD." (SEWD 2021).

The 2020 UWMP which provides current and projected water demands for the City through 2045 is based on buildout of the City's General Plan. The 2040 Stockton General Plan EIR determined that buildout of the General Plan would have a less-than-significant impact related to water supplies. The 2020 UWMP also included a supply and drought risk assessment to evaluate projected growth with available water supplies through normal, single year, and 5-year drought periods. The assessments demonstrate an ability to meet demands under all of these scenarios. As such, Cal Water is anticipated to have adequate water supplies to accommodate the project combined with past, present, and reasonably foreseeable future projects based on growth forecasts and the project's increase in water demand would not create a significant cumulative water supply impact.

Therefore, the project's incremental contribution related to cumulative water supply impacts would be less than cumulatively considerable and result in a **less-than-significant impact**.



### Wastewater Conveyance Facilities

Development of the project, combined with buildout of the City, would increase wastewater flows to the City's sewer system. The wastewater collection and treatment facilities within the City's service area are maintained and operated by the City. Projects are evaluated individually by the City during environmental review to determine adequate capacity for each project, as was done for the proposed project (Appendix H). As cumulative increases in wastewater conveyance are found to require upgrades, the City would require that capital improvements are completed to sufficiently accommodate increased wastewater inflows to existing sewer lines. The 2040 Stockton General Plan EIR determined that buildout of the General Plan would have a less-than-significant impact related to wastewater conveyance. As such, the City's system would have adequate capacity to serve the project combined with the projected demand of past, present and reasonably foreseeable future projects. Cumulative impacts relating to wastewater treatment would be less than significant and the project's incremental contribution to cumulative impacts would be less than cumulatively considerable resulting in a **less-than-significant impact**.

### Wastewater Treatment Facilities

As discussed above, the Stockton RWCF has sufficient permitted capacity with an ability to treat up to 48 mgd and currently averaging approximately 33 mgd. Cumulative development within the City would also be required to demonstrate that adequate wastewater capacity can be provided. The EIR for the 2040 Stockton General Plan determined that buildout of the General Plan would have a less than significant impact related to wastewater treatment. Therefore, considering the current available capacity, cumulative impacts are less than significant and the project's incremental contribution to cumulative impacts related to wastewater treatment facilities would be less than cumulatively considerable resulting in a **less-than-significant impact**.

### Solid Waste

The proposed project, combined with past, present, and reasonably foreseeable future projects, would increase land-use intensities in the area resulting in an increase in solid waste generation. However, cumulative projects would be required to adhere to CALGreen diversion requirements and AB 939 mandates that require cities to divert from landfills, at a minimum, 50% of the total solid waste generated to recycling facilities. As shown in Table 4.10-2, capacities of both landfills are currently showing ample capacity (over 24 million tons at Forward Landfill and over 35 million tons of capacity at North County) to accommodate additional solid waste that is projected to be available through 2036 and 2048, respectively. In addition, the 2040 Stockton General Plan EIR determined that buildout of the General Plan would have a less-than-significant impact related to solid waste capacity. Therefore, through compliance with state and local solid waste diversion requirements, cumulative impacts related to solid waste would be less than significant and the project's incremental contribution to cumulative impacts would be less than cumulatively considerable resulting in a **less-than-significant impact**.

### Stormwater

Development of the project, combined with past, present, and reasonably foreseeable future projects, could increase stormwater flows to the City's existing stormwater drainage system for all projects that increase impervious surfaces. However, not all projects involve increases to impervious surfaces, and new development as well as redevelopment that replace impervious surfaces are required to include drainage control measures such that peak storm flows are equal to or less than under existing conditions. Projects are evaluated individually by the City during environmental review to determine adequate capacity for each project and adherence to drainage control requirements. Therefore, due to the analysis of project specific demands, current drainage control requirements and the City's long-term

planning efforts, the City's system would have adequate capacity to serve the project. Cumulative projects with respect to stormwater infrastructure would be less than significant, and the project's incremental contribution to cumulative impacts would be less than cumulatively considerable resulting in a **less-than-significant impact**.

### Electricity, Natural Gas, and Telecommunications

Development of the project, combined with past, present, and reasonably foreseeable future projects, would increase demands on the electricity and natural gas infrastructure and could increase demands on telecommunication facilities. Typically, upgrades to electric utility networks fall under the jurisdiction of CPUC and would be subject to environmental review as electrical projects are proposed. As a result of this process and long-term planning efforts by PG&E, there would be adequate electrical service to the City with anticipated future growth.

Given the nature of telecommunication and gas lines (which are not typically subject to the constraints of existing facilities), beyond local connections to existing infrastructure, no additional telecommunication or gas line construction is anticipated to be required for most if not all cumulative construction. Additionally, cumulative development would be subject to review on a case-by-case basis. Should the applicable service provider determine that upgrades or extensions of infrastructure be required, any such upgrades would be included within each project's environmental review. Therefore, cumulative impacts relating to electricity, natural gas, and telecommunications would be less than significant and the project's incremental contribution to cumulative impacts would be less than cumulatively considerable resulting in a **less-than-significant impact**.

### Mitigation Measures

None required.

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## 4.11 Transportation and Circulation

### 4.11.1 Introduction

This section evaluates potential effects on transportation and circulation that could result from implementation of the St. Joseph's Medical Center of Stockton Hospital Expansion project ("proposed project"). This section describes the existing transportation setting, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

There was one comment received in response to the Notice of Preparation regarding Transportation. The comment from the Sierra Club Delta-Sierra Group notes that the project's Master Development Plan (MDP) must take into account the transportation impacts to nearby residents, as well as patients and medical workers. A copy of the Notice of Preparation and comments received are included in Appendix A.

The transportation analysis for this project has been prepared per the City of Stockton (City) Transportation Impact Analysis Guidelines (Interim) (Effective January 1, 2022, to December 31, 2022), which establishes the approach and methodology to evaluate project impacts on the City's transportation system using vehicle miles traveled (VMT) for the California Environmental Quality Act (CEQA), and the level of service (LOS) metric for non-CEQA, or General Plan, consistency requirements. Therefore, the analysis uses the VMT metric as the basis for evaluating transportation impacts under CEQA. The results of the VMT model run from the San Joaquin Valley (SJV) regional travel demand model (also known as the Three County Model or TCM) are included in the Transportation Technical Memorandum (Appendix I).

Primary sources referenced in preparing this section include a review of current Google Earth aerial and street imagery, the Envision Stockton 2040 General Plan Circulation Element (City of Stockton 2018a) and its Environmental Impact Report (EIR) (City of Stockton 2018b), the San Joaquin Council of Governments (SJCOG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), City of Stockton Bicycle Master Plan (City of Stockton 2017), and the Governor's Office of Planning and Research (OPR) Technical Advisory for Evaluating Transportation Impacts under CEQA (December 2018), and the Transportation Technical Memorandum (Dudek, December 2022) (Appendix I).

### 4.11.2 Environmental Setting

This section describes the existing transportation setting in the project vicinity, including VMT, roadways, pedestrian and bicycle facilities, and transit service as it relates to the proposed project.

#### Vehicle Miles Traveled

CEQA Guidelines section 15064.3(a) states that "...generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts..." and defines VMT as "...the amount and distance of automobile travel attributable to a project...".

In December 2018, at roughly the same time that section 15064.3 came into effect, the Governor's Office of Planning and Research (OPR) also published its "Technical Advisory on Evaluating Transportation Impacts in CEQA." Notably, the Technical Advisory defines "automobile," as the term is used in section 15064.3, as referring to "on-road passenger vehicles, specifically cars and light trucks." (Technical Advisory, p. 4.) Thus, OPR understands the requirement to address VMT as not reaching heavy-duty trucks. Even so, the Advisory goes on to say, heavy-duty

truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). Other relevant considerations may include the effects of the project on transit and non-motorized travel.

Per City Guidelines, the project generated VMT looks at the total number and distance each trip travels divided by the population that generated those trips (i.e., employees, visitors, etc., as appropriate). The most common VMT per capita metrics for this type of project include the following:

- Home-based work (HBW) VMT per employee
- Total VMT per service population (service population consists of residents plus employees and students)

The proposed project would primarily be considered a work-related project and would not screen out of conducting a detailed analysis per the City's screening criteria. Therefore, as discussed under Section 4.11.4, Project Impacts, the HBW VMT per employee metric has been used in the VMT analysis for the base year and VMT per service population for the cumulative year analysis. The study area for the project's VMT analysis is the region (i.e., San Joaquin County), per OPR's requirement of comparing the project's VMT with the regional baseline VMT.

### Roadway System

The roadway classifications included in the City's Circulation Map include freeways and highways, arterials, and collector streets. Freeways and highways that provide regional access to and from the City include Interstate 5, State Route (SR) 99, SR-4, SR-26, and SR-88. Arterials are high-volume facilities that connect the regional roadway network to the local roadway network. Collector streets connect residential and local-serving commercial areas with the arterial system. Roadway characteristics for key roads in the study area are described below.

**N. California Street** is classified as an Arterial on the City's Circulation Map between E. Alpine Avenue and Martin Luther King Jr Boulevard. In the study area, N. California Street between E. Alpine Avenue and E. Harding Way is constructed as a north-south four-lane arterial roadway. The posted speed limit along N. California Street near the proposed project is 30 mph. On-street parking is not permitted on both sides of the roadway.

After consultation with the City, it was determined that the City's California Street Separated Bikeway project, a City infrastructure project that is not part of the proposed project, may occur in the project vicinity while the project would be under construction. This street improvement project includes the installation of on-street bike lanes on both sides of N. California Street that are physically separated from vehicles on adjacent travel lanes by pavement markings and/or delineators, as well as a "road diet" which would reduce the vehicular travel lanes from four lanes to two lanes (i.e., one travel lane in each direction). This bikeway project has been considered in the transportation analysis of the proposed project.

**Cemetery Lane** is a two-lane undivided north-south Local Street and is designated as an unclassified road on the City's Circulation Map. Cemetery Lane also provides access to the rear of the St. Joseph's Medical Center of Stockton ("Medical Center"), and one of the two driveways of the adjacent San Joaquin Catholic Cemetery. On-street parking is permitted on both sides of Cemetery Lane. It should be noted that the east side of Cemetery Lane is currently unimproved with a gravel-based shoulder. The project applicant will work with the City to coordinate a fair-share contribution to improvements to this shoulder, at a later date, by paving the surface of the on-street parking areas and installing drainage conveyances in accordance with City standards.

**E. Harding Way** is classified as an Arterial on the City's Circulation Map between Pacific Avenue and its eastern terminus at Waterloo Road. West of Pacific Avenue, E. Harding Way is classified as a Collector roadway. E. Harding Way is constructed as an east-west, four-lane arterial roadway in the project vicinity. There is a center two-way left-turn lane (TWLTL) on E. Harding Way between N. California Street and El Dorado Street. The posted speed limit west of N. California Street is 30 mph, and 35 mph east of N. California Street. On-street parking is generally not permitted along the roadway. East of Yosemite Street, E. Harding Way is a designated City Truck Route.

### Transit Service

Figure 4.11-1 illustrates the existing transit facilities in the study area. Transit providers serving the City include bus and passenger rail. The San Joaquin Regional Transit District (RTD) is the primary regional transit provider in San Joaquin County (County). San Joaquin RTD provides public transit services in the Stockton Metropolitan area, as well as intercity and rural transit services countywide. RTD provides several types of bus service including Stockton Metropolitan Area Service, Intercity and Interregional Services and Dial-A-Ride. The Stockton Metropolitan Area operates local bus routes, Metro Express, and Metro Hopper services. The following routes operate along N. California Street in the vicinity of the proposed project.

- **Route 5** is a Metro Hopper that operates between Fremont-Eastland Plaza/Downtown Transit Center and Mall Transfer Station via N. California Street. The route operates at a frequency of an hour between 7:35 a.m. and 4:35 p.m. on weekdays.
- **Route 520** is a Local that operates between Downtown Transit Center and Hammerton-Kaiser via N. California Street. The route operates at a frequency of approximately 70 minutes between 5:55 a.m. and 5:45 p.m. on weekdays.
- **Route 720** is a Local that operates between Downtown Transit Center and Wigwam and Cherokee via N. California Street. The route operates at a frequency of approximately 70 minutes between 10:05 a.m. and 4:15 p.m. on weekdays.

Bus stops near the Medical Center campus are located along N. California Street near its intersections with Walnut Street, E. Wyandotte Street, and Sonoma Avenue on both sides of the street. There are mid-block bus stops for the above routes, in the southbound direction near Arcadia Street, south of Ellis Street, and south of Hampton Street.

San Joaquin RTD has two types of Dial-A-Ride services including one for the general public and one for passengers with Americans with Disabilities Act (ADA) certification. The general public service provides curb-to-curb service in areas not being served by RTD routes or other public transportation options. The Stockton Metro Area Dial-A-Ride provides curb-to-curb service for passengers who have received ADA certification with San Joaquin RTD to qualify for paratransit services.

The Altamont Corridor Express (ACE Train) is a heavy rail service that connects the Central Valley with the San Francisco Bay Area. The ACE Train is managed under a Cooperative Services Agreement between the San Joaquin Regional Rail Commission, Alameda County Congestion Management Agency, and the Valley Transportation Authority.

Amtrak provides nationwide passenger rail service. The Amtrak San Joaquin service between Bakersfield in the south and Sacramento and Oakland in the north and has two stops in Stockton. There are no rail transit stations in the vicinity of the Medical Center.



## Pedestrian and Bicycle Facilities

Figure 4.11-2 illustrates the existing and future bicycle facilities in the study area. The City has approximately 117 miles of existing bikeways, including approximately 46 miles of bike paths, 36 miles of bike lanes, and over 35 miles of bike routes (City of Stockton 2017). These four categories of bikeways are specified in the California Department of Transportation (Caltrans) Highway Design Manual and Sections 885.1 et seq. of the California Streets and Highways Code.

- **Class I Bikeway** (Bike Path). Bike paths provide a completely separate right-of-way and are designated for the exclusive use of people riding bicycles and walking with minimal cross-flow traffic.
- **Class II Bikeway** (Bike Lane). Bike lanes provide designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. Bike lanes include special lane markings, pavement legends, and signage. Bike lanes may be enhanced with painted buffers between vehicle lanes and/or parking, and green paint at conflict zones (such as driveways or intersections).
- **Class III Bikeway** (Bike Route). Bike routes provide enhanced mixed-traffic conditions for bicyclists through signage, striping, and/or traffic calming treatments, and provide continuity to a bikeway network. Bike routes are typically designated along gaps between bike trails or bike lanes, or along low-volume, low-speed streets. Bicycle boulevards provide further enhancements to bike routes by encouraging slow speeds and discouraging non-local vehicle traffic, often through the use of traffic calming. Bicycle boulevards can also feature special wayfinding signage to nearby destinations or other bikeways.
- **Class IV Bikeway** (Separated Bikeway). Separated Bikeways, also referred to as cycle tracks or protected bikeways, are bikeways for the exclusive use of bicycles which are physically separated from vehicle traffic. Separations may include grade separation, flexible posts, physical barriers, or on-street parking.

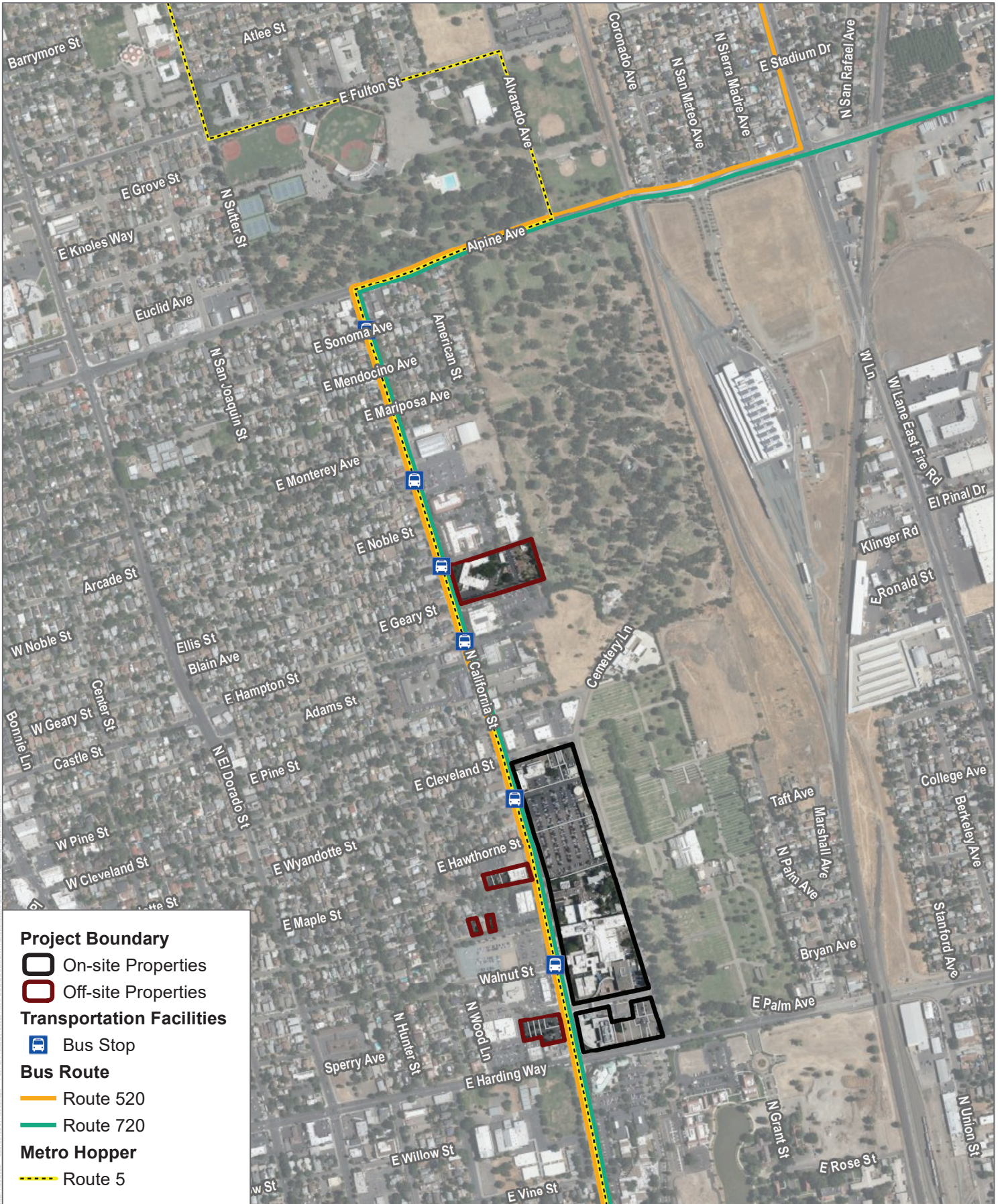
In the vicinity of the Medical Center campus, there is an existing Class II bike lane on N. California Street between E. Alpine Avenue and E. Harding Way. The City does not have any separated bikeways; however, the City of Stockton Bicycle Master Plan (Bicycle Master Plan) includes the California Street Separated Bikeway project (Bikeway project) from E. Alpine Avenue to El Dorado Street. The Bikeway project is one of the highest priority projects of the Bicycle Master Plan due to its ability to promote citywide spatial equity and socio-economic equity by connecting multiple disadvantaged neighborhoods, as defined by the California Office of Environmental Health Hazard Assessment's CalEnviroScreen environmental justice data.

As noted above, it was determined that the City's California Street Separated Bikeway project may occur in the project vicinity while the project would be under construction. This street improvement project includes the installation a Class IV Bikeway on N. California Street adjacent to the campus, as well as a "road diet" which would reduce the vehicular travel lanes from four lanes to two lanes (i.e., one travel lane in each direction).

## Collision History

Collisions from the last 5 years of available data (2016–2021) were collected and analyzed using the Transportation Injury Mapping System (TIMS) which aggregates collision data directly from the California Statewide Integrated Traffic Records System (SWITRS). Along the N. California Street and E. Harding Way frontages of the Medical Center campus, approximately 50 collisions were recorded in the last 5 years, averaging 10 collisions per year. Within those 50 collisions, four fatalities occurred, all involving pedestrians crossing N. California Street between E. Maple Street and E. Wyandotte Street. Of the remaining 46 collisions, none resulted in severe injuries, 12 resulted in visible injuries, and 34 resulted in complaints of pain injuries. Of the 50 collisions recorded, approximately 38 were broadside and rear end type collisions, with the remaining type of collisions consisting of head-on, sideswipe, overturned vehicles, or other.





SOURCE: Bing Imagery 2021; Open Street Map 2020; County of San Joaquin 2019

FIGURE 4.11-1

Existing Transit Facilities



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SOURCE: Bing Imagery 2021; Open Street Map 2020; County of San Joaquin 2019

FIGURE 4.11-2

Existing and Future Bicycle Facilities

St. Joseph's Medical Center of Stockton Hospital Expansion Project



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### 4.11.3 Regulatory Setting

#### Federal Regulations

##### Americans with Disabilities Act

The ADA of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the United States Access Board, an independent federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. The guidelines apply to all proposed roadways in the project area. The City's ADA Coordinator works out of the Public Works Department to manage the City's efforts in complying with applicable accessibility regulations.

#### State Regulations

##### Assembly Bill 32

With Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (CARB) is coordinating the response to comply with AB 32. In 2007, CARB adopted a list of early action programs that could be put in place by January 1, 2010. In 2008, CARB defined its 1990 baseline level of emissions, and by 2011 it completed its major rule making for reducing GHG emissions. Rules on emissions, as well as market-based mechanisms like the proposed cap and trade program, took effect in 2012. On December 11, 2008, CARB adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of Senate Bill (SB) 375 as the means for achieving regional transportation related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

##### Senate Bill 32

In 2016, the Legislature enacted SB 32 (Stats. 2016, ch. 249) as a follow-up to AB 32. Health and Safety Code section 38566, added by SB 32, provides that “[i]n adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by [Division 25.5 of the Health and Safety Code], [CARB] shall ensure that statewide greenhouse gas emissions are reduced to at least 40% below the statewide greenhouse gas emissions limit no later than December 31, 2030.” In other words, SB 32 requires California, by 2030, to reduce its statewide GHG emissions so that they are 40% below those that occurred in 1990.

##### Senate Bill 375

SB 375 requires metropolitan planning organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) as part of their regional transportation plans (RTPs). The SCS demonstrates how the region will meet its GHG reduction targets through integrated land use, housing, and transportation planning. Specifically, the SCS must identify a transportation network that is integrated with the forecasted development pattern of the region and will



reduce GHG emissions from automobiles and light trucks in accordance with targets set by the CARB. In 2017, the State Legislature passed SB 150, which requires CARB to prepare a report beginning in 2018 and every 4 years thereafter analyzing the progress made by each MPO in meeting the regional GHG emission reduction targets. The San Joaquin Council of Governments (SJCOG) serves as the MPO for Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, Tracy, and San Joaquin County. SB 375 also provides streamlining (i.e., limited CEQA review) for certain transit priority projects that are consistent with the SCS.

### Senate Bill 743

Senate Bill (SB) 743, enacted in 2013, created Public Resources Code section 21099, which directed the Governor's Office of Planning and Research (OPR) and the Secretary of the Natural Resources Agency to establish criteria for determining the significance of transportation impacts of projects within transit priority areas, with the option of creating new statewide criteria. The significance criteria for transit priority areas were to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In developing the new criteria, OPR and the Secretary were to recommend potential metrics that included, but were not limited to, vehicle miles traveled [VMT], vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. Section 21099 further provided that, once the CEQA Guidelines had been updated as required by the statute, "automobile delay, as described solely by level of service [LOS] or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA], except in locations specifically identified in the guidelines, if any."

Consistent with these directives, the Natural Resources Agency promulgated CEQA Guidelines section 15064.3, which became effective in late 2018. It provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts," with VMT referring to "the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel." Rather than limit its scope only to transit priority areas, the section changed the approach to assessing transportation impacts under CEQA all over the State. Thus, LOS ceased to be a valid criterion or factor for assessing the significance of transportation impacts under CEQA as of late 2018. (See *Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal.App.5th 609, 625-626.)

In the past, environmental review of transportation impacts had focused on the delay that vehicles experience at intersections and on roadway segments, which is often measured using LOS. Mitigation for impacts on vehicular delay often involved increasing capacity such as widening a roadway or the size of an intersection, which in turn encouraged more vehicular travel and greater pollutant emissions. Additionally, improvements to increase vehicular capacity often discouraged alternative forms of transportation such as biking and walking.

In December 2018, at about the same time as section 15064.3 came into effect, OPR released its Technical Advisory on Evaluating Transportation Impacts in CEQA, to provide guidance on VMT analysis (OPR 2018). In this Technical Advisory, OPR provides its recommendations to assist lead agencies in screening out projects from VMT analysis, selecting significance thresholds that may be appropriate for their particular jurisdictions, and formulating mitigation measures. While OPR's Technical Advisory is not binding on public agencies, CEQA allows lead agencies to "consider thresholds of significance ... recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence" (CEQA Guidelines Section 15064.7[c]). Lead agencies may consider and use OPR's recommendations at their discretion and with the provision of substantial evidence to support alternative approaches.

CEQA Guidelines Section 15064.3(b) is divided into four subdivisions as follows:

- Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
- Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.
- Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project’s vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
- Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

The OPR’s regulatory text indicated that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by July 1, 2020. However, the OPR Technical Advisory allows local agencies to retain their congestion-based LOS standards in general plans and for project planning purposes. As mentioned in the City of Stockton’s Guidelines, use of both metrics is required in a project’s transportation analyses. However, an EIR is only required to evaluate a project’s VMT in assessing impacts and not LOS. Therefore, this EIR relies on VMT as the basis for evaluating transportation impacts under CEQA.

### California Department of Transportation

Caltrans is responsible for planning, designing, constructing, operating, and maintaining the State Highway System (SHS). Federal highway standards are implemented in the state by Caltrans. Any improvements or modifications to the SHS within the study area would need to be approved by Caltrans.

On May 20, 2020, Caltrans adopted its VMT-Focused Transportation Impact Study Guide (TISG). The TISG provides guidance on how Caltrans will review land use projects, with a focus on VMT analysis and supporting state land use goals, state planning priorities, and GHG emission reduction goals. The TISG also identifies land use projects’ possible transportation impacts to the SHS and potential non-capacity increasing mitigation measures.

The TISG emphasizes that VMT analysis is Caltrans’ primary review focus, and references OPR’s 2018 Technical Advisory as a basis for the guidance in the TISG. Notably, the TISG recommends the use of the recommended thresholds in the Technical Advisory for land use projects. The TISG also references the Technical Advisory for screening thresholds that would identify projects and areas presumed to have a less-than-significant transportation

impact. Caltrans supports streamlining for projects that meet these screening thresholds because they help achieve VMT reduction and mode shift goals.

On July 2, 2020, Caltrans released the Interim Land Development and Intergovernmental Review Safety Review Practitioners Guidance. The purpose of the interim guidance is to provide instructions for conducting safety impact analysis for proposed land use projects and plans in compliance with CEQA. The guidance is focused on potential safety impacts affecting the SHS and sets expectations for Caltrans staff and lead agencies about what information and factors to consider in safety impact analysis. Caltrans recommends lead agencies use a similar approach, specifically Local Roadway Safety Plans and Systemic Safety Analysis Reports, as a model for safety analysis of the local transportation network.

It should be noted that there are no Caltrans facilities in the study area determined (in conjunction with the City Public Works Department) for the proposed project. The VMT analysis is also consistent with the requirements of the Caltrans TISG.

### Regional Regulations

#### San Joaquin Council of Governments

The San Joaquin Council of Governments (SJCOG) functions as both the federally designated MPO and the state-designated regional transportation planning agency RTPA for the County. Under federal regulations (23 CFR 450.322I) and State law (Government Code 65080[d]), SJCOG is required to prepare a long-range (at least 20-year) transportation planning document, known as the RTP.

The RTP must be updated every 4 years and must be consistent with the California Transportation Plan. The RTP is generally an action-oriented document used to achieve a coordinated and balanced regional transportation system. The RTP/SCS considers future population growth and housing needs, as well as economic, environmental, and public health goals. The Plan maps out how the region will integrate transportation and land use, with the ultimate goal of providing transportation options to help the region grow in a financially and environmentally responsible way. It also contributes to California state goals of reductions in greenhouse gas emissions and miles driven on the road.

SJCOG adopted its RTP/SCS in 2018 and is in the process of preparing the 2022 RTP/SCS. The RTP/SCS changes to the policies and strategies in the 2018 RTP were primarily made to ensure consistency of the 2022 RTP/SCS with SB 375 and to delete strategies that were completed since the 2018 RTP/SCS. Upon approval, the 2022 RTP/SCS will supersede all of the policies and strategies in the 2018 RTP.

#### Regional Transportation Plan

SJCOG's RTP includes an SCS, as required by SB 375, which links land use and transportation strategies with the intent of meeting specified per capita GHG reduction targets for emissions from cars and light trucks. Section 4.7, Greenhouse Gas Emissions, provides a detailed discussion of the SCS. A more detailed discussion of the RTC and SCS is provided below under local regulations.

#### Regional Congestion Management Plan

The SJCOG adopted the latest version of its Regional Congestion Management Plan (RCMP) in 2018. The RCMP is designed to coordinate land use, air quality and transportation planning to reduce potential congestion from traffic generated by development. State statute requires all state highways be designated as a part of the RCMP. SJCOG's

RCMP has also designated a local roadway and intersection network on which traffic congestion would be monitored and programs to reduce congestion would be targeted. Once an intersection is listed, it cannot be removed. A Regional Transportation Impact Fee is imposed on new development to support improvements to the regional transportation network. The segment of E. Harding Way near the campus is part of the RCMP roadway network.

### Regional Bicycle, Pedestrian and Safe Routes to Schools Master Plan

In 2012, SJCOG developed the Regional Bicycle, Pedestrian, and Safe Routes to School Master Plan. This regional plan for the County serves as a guide to planning, developing, and managing a regional bicycle and pedestrian network. Additionally, the plan identifies bikeways and pedestrian projects of regional significance and includes an implementation and funding strategy to help agencies involved in the implementation of the plan.

### Regional Transit Systems Plan

SJCOG adopted the Regional Transit Systems Plan in 2016. The plan is a long-range transit plan that looks at bus and rail transit needs and their costs and details a financial forecast of anticipated funding through 2024. The plan was prepared in collaboration with the bus/transit operators in the County, including SJRTD. Future improvements anticipated in the Regional Transit Systems Plan include expansion of Metro Hopper to replace traditional dial-a-ride service, MLK and Crosstown Miner bus rapid transit expansion, a restructure of SJRTD commuter service, increased service to the Bay Area Rapid Transit system, and providing a cost-effective vanpool program.

### Travel Demand Management Plan

SJCOG adopted its Travel Demand Management Plan in 2010. Development of this plan was tailored to establish an equitable and working framework between SJCOG and its member agencies to address demand management and facility-based demand management strategies to relieve peak period congestion on RCMP roadways. Strategies may include, but are not limited to, transit passes or subsidies, bike racks and lockers, rideshare programs, parking cash-out, preferential parking, and telecommute/flex schedules. Although not related to the Travel Demand Management Plan, San Joaquin Valley Air Pollution Control District Rule 9410 requires similar actions and recommends similar strategies for employers of 100 or more.

### Park-and-Ride Lot Master Plan

The Park-and-Ride Lot Master Plan was adopted in 2007. The plan describes the existing park-and-ride lots in the County, their condition, and their current level of use. It also identifies future needs for park-and-ride based on expected growth and commute patterns, transit services, and potential high-occupancy-vehicle improvements in the county. There were five future park-and-ride lots identified within the City boundary; however, none of the lots are on or near the campus.

## Local Regulations

### Envision Stockton 2040 General Plan

The transportation chapter of the Envision Stockton 2040 General Plan is organized around four key goals: mobile community, active community, sustainable transportation, and effective transportation assessments. The plan focuses on providing mobility for all communities, including transition to a “complete streets” framework, greater active transportation opportunities, effective mitigation of traffic-related harms for transportation land uses, and

infrastructure design that limits pollution exposure and traffic deaths (City of Stockton 2018a). Applicable goals and policies from the General Plan are listed below.

Goal TR-1. **Mobile Community:** Provide an integrated transportation system that enables safe and efficient movement of people and goods for all modes of travel.

Policy TR-1.1. Ensure that roadways safely and efficiently accommodate all modes and users, including private, commercial, and transit vehicles, as well as bicycles and pedestrians and vehicles for disabled travelers.

Action TR-1.1.A. Direct truck traffic to designated truck routes that facilitate efficient goods movement and minimize risk to areas with concentrations of sensitive receptors and vulnerable road users, like pedestrians and bicyclists. [See also Section 4.9, Noise.]

Goal TR-2. **Active Community:** Offer active transportation opportunities for the entire community.

Policy TR-2.1. Develop safe and interconnected bicycle and pedestrian facilities, including along “complete” streets that target multiple travel modes.

Action TR-2.1.A. Require safe and secure bicycle parking facilities to be provided at major activity centers such as public facilities, employment sites, and shopping and office centers, along with showers and lockers for major employment sites.

Policy TR-2.2. Connect housing and employment development in areas with good transit access.

Action TR-2.2A. Require major new development to incorporate design features to promote safe and comfortable access to transit, such as a circulation network that facilitates efficient and connected bus travel, clear pedestrian and bicycle routes connecting origins and destinations to transit stops, sheltered bus stops, park-and-ride facilities, and highly visible transit information and maps.

Action TR-2.2B. Obtain input from local and regional transit operators on major new development projects to ensure projects are designed to support transit and provide adequate transit service and access.

Action TR-2.2C. Obtain input from local and regional transit operators on major new development projects to ensure projects are designed to support transit and provide adequate transit service and access.

Policy TR-2.3. Utilize natural features and routes with lower traffic volumes and speeds to encourage residents to walk and wheel more frequently.

Action TR-2.3A. Develop and maintain bikeways on separate rights-of-way.

Action TR-2.3B. Require dedication of adequate right-of-way for bicycle use in new arterial and collector streets, and where feasible, in street improvement projects.

Goal TR-3. Sustainable Transportation: Design transportation infrastructure to help reduce pollution and vehicle travel.

Policy TR-3.1. Avoid widening existing roadways in an effort to preclude inducement of additional vehicle traffic.

Action TR-3.1A. Limit street widths to the minimum necessary to adequately carry the volume of anticipated traffic, while allowing for safe bicycle and pedestrian facilities, emergency access, and large vehicle access.

Action TR-3.1B. Where feasible and appropriate, reduce the width of existing streets using bulb-outs, medians, pedestrian islands, shade tree landscaping, and similar methods, while not jeopardizing emergency response.

Action TR-3.1C. Preserve right-of-way for transit and bicycle uses when designing new roadways and improving existing roadways.

Policy TR-3.2. Require new development and transportation projects to reduce travel demand, support electric vehicle charging, and accommodate multi-passenger autonomous vehicle travel as much as feasible.

Action TR-3.2.A. Amend the parking requirements in the Development Code to encourage shared parking, require preferential parking for rideshare vehicles, and allow reduced parking requirements to support transit, bicycling, and walking.

Action TR-3.2.B. Require commercial, retail, office, industrial, and multi-family residential development to provide charging stations and prioritized parking for electric and alternative fuel vehicles.

Goal TR-4. Effective Transportation Assessments: Ensure that traffic-related impacts of proposed land uses are evaluated and mitigated.

Policy TR-4.1. Utilize level of service (LOS) information to aid understanding of potential major increases to vehicle delay at key signalized intersections.

Action TR-4.1.A. Strive for Level of Service (LOS) D or better for both daily roadway segment and peak hour intersection operations, except when doing so would conflict with other land use, environmental, or economic development priorities, and with the following additional exceptions:

- In the Greater Downtown, strive for LOS E or better, but LOS F may be acceptable after consideration of physical or environmental constraints and other City goals and policies.
- Strive for different LOS standards along corridors specified in the General Plan due to physical constraints that limit the improvements that can be constructed
- Accept worse than adopted-standard LOS at intersections where widening the intersection would reduce bicycle and pedestrian safety and/or increase pedestrian crossing times such that they would create longer traffic delays due to signal timing.



Policy TR-4.2. Replace LOS with: (1) vehicle-miles traveled (VMT) per capita; and (2) impacts to non-automobile travel modes, as the metrics to analyze impacts related to land use proposals under the California Environmental Quality Act, in accordance with SB 743.

Action TR-4.2A. To evaluate the effects of new development and determine mitigation measures and impact fees, require projects to evaluate per capita VMT and impacts to transit, bicycle, and pedestrian modes.

Policy TR-4.3. Use the threshold recommended by the California Office of Planning and Research for determining whether VMT impacts associated with land uses are considered significant under State environmental analysis requirements.

Action TR-4.3A. Amend the City's Transportation Impact Analysis Guidelines to:

- Establish a threshold of 15 percent below baseline VMT per capita to determine a significant transportation impact under the California Environmental Quality Act.
- Identify screening criteria that will streamline certain types of development and/or development in certain areas by not requiring a VMT analysis.

The General Plan notes that while the City strives to maintain LOS D or better for peak hour intersection and daily roadway segment operations, exceptions to this standard are permissible in Downtown Stockton and other areas to support other goals, such as encouraging safe travel by other modes of transportation than the car.

### City of Stockton Bicycle Master Plan

The City recently updated its Bicycle Master Plan, which was adopted in December 2017. The Bicycle Master Plan identifies key low stress connections that should be implemented to allow people of all ages and abilities to connect across the city via a bicycle. The document also identifies programs and educational guidelines that encourage a greater shift in bicycle mode share within Stockton. The previous plan was developed and adopted as part of the City's General Plan update at that time, provided a comprehensive system of bicycle lanes on arterial streets, bicycle routes on residential streets, and bicycle paths. The 2017 update re-orientes the selection and prioritization of investments in bicycle facilities and describes the highest priority projects to improve connectivity, safety, mode shift, and access.

The California Street Separated Bikeway project from E. Alpine Avenue to El Dorado Street is included as a priority project and would be the "spine" of the Backbone Network that would support north/south bicycle travel where cyclists currently want to be and could support multiple east/west connections.

### City of Stockton Precise Road Plans

The City has multiple Precise Road Plans which conform to the General Plan. These plans can be used to protect, preserve, and require dedications for planned roadway and/or transportation corridors as future development occurs. These plans should be updated for conformity with multimodal complete streets principles and to ensure consistency with other recently updated plans.

### City of Stockton Climate Action Plan

The City's Climate Action Plan was adopted in 2014 and identifies reduction targets to reduce GHG emissions. The Climate Action Plan relies on voluntary measures for both existing and new development and includes a number of mandatory measures where required by other state or local mandates and other City initiatives. Transportation strategies to reduce VMT represent a considerable portion of the Climate Action Plan measures.

### City of Stockton Transportation Impact Guidelines

The City has adopted interim guidelines for Transportation Impact Analysis Guidelines (City of Stockton 2022). These detail specific requirements for the preparation of transportation impact assessments to meet local non-CEQA and General Plan consistency requirements, as well as for the preparation of CEQA documents. The project's VMT and LOS analyses have been prepared consistent with the City's guidelines.

### City of Stockton Public Facility Fees

The City has established Public Facility Fees to be imposed on residential and nonresidential development to defray the costs of new or improved streets that may be necessary to serve the new development. Among the facilities that would be supported by these fees are street improvements and traffic signals. These fees are revised periodically by the City Council based on findings that, among other matters, identify the purpose to which the fee is to be allocated and demonstrate a reasonable relationship between the fee and purpose for which it is charged.

### Stockton Municipal Code

Stockton Municipal Code Section 16.64.100 sets forth bicycle parking requirements and development standards for non-residential land uses. Bicycle parking facilities in parking lots shall be provided at a minimum of one employee bicycle parking space for each 25,000 square feet of gross floor area. For this project, a minimum of up to 40 bicycle parking spaces would be required. Each bicycle parking space shall include a stationary parking device of a design approved by the City. Bicycle spaces shall be conveniently located and generally within proximity to the main entrance of a structure, and they shall not interfere with pedestrian access.

However, it should be noted that the proposed project will be implementing a Master Development Plan (MDP, revised April 2022) which may include development standards that differ from the City's Municipal Code. Per section 6.4.7 of the MDP, bicycle parking facilities shall be installed in a manner which allows adequate spacing for access to the bicycle and the locking device when the facilities are occupied. General space allowances shall include a 2-foot width and a 6-foot length per bicycle and a 5-foot maneuvering space behind the bicycle. The facilities shall be located on a hard, dust free surface, preferably asphalt or concrete slab.

- Bicycle parking shall consist of at least a stationary bicycle rack, typically on a concrete slab where the bicyclist supplies a padlock and chain or cable to secure the bicycle to a stationary object.
- A minimum of 10% of the provided bicycle parking shall be for long-term (bicycle storage room, bicycle storage locker, etc.) bicycle parking.

## 4.11.4 Impacts and Mitigation Measures

### Methods of Analysis

#### Vehicle Miles Traveled

The City Guidelines provide screening criteria for identifying the types of projects that are expected to not result in a significant VMT impact, where a detailed CEQA analysis would not be required to evaluate the project VMT. The location of the proposed Medical Center expansion development falls just outside of a screened-out low VMT area (Figure 3 from the City Guidelines), and therefore triggers the requirement to prepare a detailed VMT analysis under CEQA. The project's detailed VMT analysis was conducted using the SJCOG travel demand model and is discussed in detail below.

#### Hazardous Features (Project Access)

The analysis evaluates whether the project would result in hazards due to design features created by the project (i.e., new project access points/driveways on to public streets). The 95th percentile queues were evaluated at the project's proposed new project access intersections to determine whether proposed storage pocket lengths would be exceeded. The following new project driveways were analyzed for queuing impacts:

1. New Parking Structure access/E. Cleveland Street Driveway
2. N. California Street/E. Wyandotte Street Driveway
3. N. California Street/Hawthorne Street Driveway
4. N. California Street/McCloud Avenue Driveway
5. N. California Street/Chestnut Street Driveway

#### Emergency Access

The emergency access analysis evaluates whether the project would comply with City's emergency access and/or evacuation requirements including those imposed by the Fire Department.

### Thresholds of Significance

In general, a significant impact would occur if development of the proposed project would do any of the following:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

#### Significance Criteria

In addition, based on these general thresholds, the City has identified the following more specific thresholds to determine if a significant transportation-related impact could occur. The CEQA Guidelines no longer require an analysis of level of service; therefore, the impact analysis only evaluates the project's consistency with applicable

general plan goals and policies (see Impact 4.11-1). A separate transportation analysis addressing the potential for the project to affect the City's local roadway network has been prepared but is not part of this EIR.

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

**Roadway System** – The project would create a significant impact related to the roadway system if any of the following criteria are met:

1. At unsignalized intersections, the project results in any of the traffic signal warrants included in the *CA Manual on Uniform Traffic Control Devices* (MUTCD) to be satisfied, or for a location where any of the warrants are satisfied prior to the project, the project increases overall travel through the intersection.
2. The project creates the potential for 95th percentile vehicle queues that exceed available storage and could periodically block or interfere with pedestrian, bicycle or transit facilities.
3. The project would physically modify an existing or planned roadway in a manner inconsistent with the City's General Plan.

**Transit System** - The project would create a significant impact related to transit service if the following criterion is met:

1. The project disrupts an existing transit facility or service or interferes with the implementation of future transit service.

**Bicycle System** - The project would create a significant impact related to the bicycle system if any of the following criteria are met:

1. Disrupt existing bicycle facilities;
2. Interfere with planned bicycle facilities; or
3. Cause other changes to the bicycle system that would be inconsistent with performance expectations established in adopted bicycle system plans, guidelines, policies, or standards.

**Pedestrian System** - The project would create a significant impact related to the pedestrian system if any of the following criteria are met:

1. Disrupt existing pedestrian facilities; or
2. Interfere with planned pedestrian facilities; or
3. Cause other changes to the pedestrian system that would be inconsistent with performance expectations established in adopted pedestrian system plans, guidelines, policies, or standards, including the ADA.

- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Based on guidance from OPR and discussion with the City regarding significance thresholds, the following VMT threshold has been used for the proposed project:

### Project Impact

- Office/Work related land use: 15% below the regionwide average for HBW VMT per employee.

### Cumulative Impact

- The citywide total VMT per service population is compared between the “no project” and “plus project” scenarios.
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The project would cause a significant impact if the project adds demand to facilities that do not meet applicable design standards or if the project proposes transportation network modifications that are inconsistent with applicable design standards.

- Result in inadequate emergency access

The City’s guidelines do not specify a criterion for this threshold. Per the CEQA checklist (Appendix G), the emergency access analysis evaluates whether the project would comply with City’s emergency access and/or evacuation requirements including those imposed by the Fire Department.

## Project Impacts

**Impact 4.11-1      The proposed project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.**

The City’s General Plan and Bicycle Master Plan includes goals, polices and action items and policies that address the circulation system in the City. If the proposed project does not implement a particular program, plan, or policy, it would not necessarily result in a conflict as some of these programs must be implemented by the City or other related agencies, over time and include a much broader area. Rather, the proposed project would result in a conflict if it would preclude the City from implementing adopted transportation-related programs, plans and policies.

As it relates to the four key goals specified in the transportation chapter of the General Plan and as described in the Regulatory Setting in Section 4.11.3, the proposed project would have the following effect:

- **Goal TR-1. Mobile Community:** Provide an integrated transportation system that enables safe and efficient movement of people and goods for all modes of travel.
  - Based on review of the project’s proposed new and existing access locations, the proposed project would support this goal and would continue to ensure safe and efficient movement of people and goods for all modes of transportation along the adjacent streets of California Street, Cemetery Lane, and Harding Way. Mobility as it relates to vehicular queuing, access, and other potentially hazardous conditions is further described in Impact 4.11-3.

- Goal TR-2. Active Community: Offer active transportation opportunities for the entire community.
  - The proposed project would not conflict with active transportation opportunities on existing pedestrian and bicycle facilities or future active transportation plans (e.g., California Street Separated Bikeway project) within the study area. The proposed project would also not eliminate any bus stop locations.
- Goal TR-3. Sustainable Transportation: Design transportation infrastructure to help reduce pollution and vehicle travel.
  - As further described in Impact 4.11-2, the proposed project would have a less than significant impact as it relates to VMT. Therefore, no VMT-related mitigation measures are required. However, an Employer Based Trip Reduction program may be required to further reduce pollution.
- Goal TR-4. Effective Transportation Assessments: Ensure that traffic-related impacts of the proposed land uses are evaluated and mitigated.
  - An evaluation of LOS is no longer required in CEQA. As further described in Impact 4.11-2, the proposed project would have a less-than-significant impact as it relates to VMT. A non-CEQA related Local Transportation Assessment (LTA, Dudek, December 2022) that evaluates LOS in the project vicinity has been prepared for the City's Public Works Department's use, outside of this EIR. The LTA is on file at the City.

Therefore, the proposed project is consistent with the four key goals related to mobile community, active community, sustainable transportation, and effective transportation assessments included in the transportation chapter of the General Plan and as described in the Regulatory Setting in Section 4.11.3.

Additionally, the proposed project would result in one impact to the roadway system as discussed below:

1. Most of the unsignalized intersections in the project's study area (as determined by the City) would not require signalization as they would not satisfy peak hour signal warrants per the California Manual of Uniform Traffic Control Devices (CA MUTCD). The exception is the intersection of Cemetery Lane/E. Harding Way. This intersection would meet signal warrants in Buildout Year 2042 plus Project conditions in the PM peak hour. All signal warrant sheets are provided in Appendix I of this EIR. With signalization of this intersection, project traffic from Maple Street (with right turn in/out only access on N. California Street) and from the proposed Parking Structure, destined to travel east on E. Harding Way, would access the intersection via Cemetery Lane and would be efficiently served with less delays.
2. The 95th percentile vehicle queues assessed at project driveways and discussed later in this section, do not exceed available storage and would not periodically block or interfere with pedestrian, bicycle or transit facilities. All queuing worksheets are provided in Appendix I of this EIR.
3. The project does not propose physical modification of any roadways in its vicinity in a manner inconsistent with the City's General Plan. The proposed project would not physically modify the operational roadway characteristics of any public roadways in the vicinity. The General Plan's Circulation Element roadway classifications (Arterial, Collector, Local, etc.) and street cross-sections of any of the roadways within the study area would not be altered by the proposed project.

The existing roadway segment of McCloud Avenue, between N. California Street and Cemetery Lane,<sup>1</sup> would be closed by the project in order to accommodate the new hospital building. This segment of roadway is one-way (eastbound) and serves as the primary access to existing hospital surface parking lots on the north side of the street

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<sup>1</sup> The portion of McCloud Avenue between N. California Street and Cemetery Lane was abandoned by the City Council in 1978 and is owned by St. Joseph's Medical Center.



and provides on-street parking spaces for the hospital. No through traffic was observed on this segment of roadway. The existing surface parking lot would be replaced by a new Parking Structure on the northwest corner of the project site with new access driveways at N. California Street/E. Wyandotte Street, N. California Street/Hawthorne Avenue, and on Cleveland Avenue. Therefore, the existing utility of this segment of McCloud Avenue would be shifted to the new driveways of the new Parking Structure.

The proposed project would not cause any existing bus routes to be altered or changed. Additionally, all existing bus stops would be kept operational during the construction and occupation of the proposed project. Therefore, the proposed project would not disrupt or conflict with any existing transit facilities, (i.e., bus routes that operate along N. California Street). It would not conflict with implementation of any future transit facilities.

The California Street Separated Bikeway project would be implemented along project's frontage along N. California Street. The intersections and driveways along this street were analyzed assuming the planned and designed roadway and continuous Class IV bikeway configurations, including the four-lane to two-lane road diet along N. California Street. The proposed project would not impact the California Street Separated Bikeway or cause it to be truncated in any way. All vehicular queues, and existing and proposed traffic controls were assessed and determined to be adequate.

The proposed project would not disrupt or conflict with any existing pedestrian facilities. It would not conflict with implementation of any future pedestrian facilities.

Therefore, based on the traffic signal warrant being met at the intersection of Cemetery Lane/E. Harding Way, the project may conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. However, impacts would be considered **potentially significant**.

### Mitigation Measures

With the implementation of Mitigation Measure 4.11-1, the project applicant will coordinate with the City to install a new traffic signal at the Cemetery Lane/E. Harding Way intersection to ensure pedestrian safety and emergency access is not affected by the project. Compliance with this mitigation would ensure project impacts to the City's circulation policies would be mitigated to a level of less than significant.

#### MM 4.11-1 Traffic Signal

Prior to obtaining a Certificate of Occupancy, the project applicant shall coordinate with the City of Stockton on the design, construction, and implementation of a new traffic signal at the intersection of Cemetery Lane/E. Harding Way. The project applicant shall be fully responsible for the installation of the signal which would accommodate the expected future traffic demand, improve pedestrian safety, and improve emergency access via integrated traffic signal pre-emption for the adjacent Stockton Fire Station No. 9.

#### Impact 4.11-2 **The proposed project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).**

The following discusses the proposed project's VMT impacts and its consistency with CEQA Guidelines Section 15064.3, subdivision (b).

Per the City's Guidelines, if a project meets any one of the following criteria it would not require a detailed VMT analysis:

- **Transit Priority Areas (TPA)**<sup>2</sup>: Projects located within ½ mile walkshed around major transit stops<sup>3</sup> (i.e., Downtown ACE Station and Amtrak Station) or within ¼ mile walkshed around stops on high quality transit corridors<sup>4</sup>(i.e., Hammer Lane and Pacific Avenue) in Stockton.
  - The project is not located within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor in the City, therefore, it would not meet the transit proximity screening criterion.
- **Affordable Housing**: 100% restricted affordable residential projects in infill locations (i.e., development within unused and underutilized lands within existing development patterns) and near transit (i.e., is within half a mile of a transit stop).
  - The project is not proposing affordable housing units, and therefore would not meet this screening criterion.
- **Small Projects**: Projects defined as generating 110 or fewer average daily vehicle trips, absent substantial evidence indicating that a project would generate a potentially significant level of VMT.
  - As shown in Table 4.11-1, Project Trip Generation below, the project would generate 3,513 daily trips and therefore would not meet the small project screening criterion. The proposed project includes a 144 bed facility; however, the Future Expansion (Phase 5) could potentially add another 50 beds. Therefore, 194 bed equivalent trip generation and employee estimate was used in the project’s transportation analyses
- **Locally Serving Public Facility**: Locally serving public facilities that encompasses government, civic, cultural, health, and infrastructure uses and activity which contribute to and support community needs. Locally serving public facilities include police stations, fire stations, passive parks (parks designed for use in an informal way and typically less developed), branch libraries, community centers, public utilities, and neighborhood public schools. This exemption would not apply to charter schools, private schools, colleges/universities, hospitals, or other quasi-public uses that are privately operated.
  - The proposed project is a hospital expansion and therefore would not meet this screening criterion.
- **Neighborhood-Serving Retail Project**: Neighborhood-serving retail projects that are less than 50,000 square feet, which serve the immediate neighborhoods and may have a similar use within three miles.
  - The project is not proposing neighborhood-serving retail, therefore would not meet this screening criteria.
- **Low VMT Area**: The project is in a traffic analysis zone (TAZ) that generates VMT at a rate at least 15 percent lower than the most recently established baseline VMT level (as shown in Figure 2 of City’s guidelines).
  - The proposed project is not located within a low VMT area, and therefore would not meet this screening criterion.

<sup>2</sup> TPA screening will only apply if the project meets any of the following criteria:

- The project has a Floor Area Ratio of 0.75 or more
- The total square footage is 500,000 square feet or less
- The proposed parking does not exceed minimum required by the Zoning Code or applicable plan
- The proposed project is consistent with the City’s General Plan, applicable Specific Plan, or applicable Sustainable Communities Strategy (as determined by the lead agency, with input from SJCOG)
- Existing on-site affordable residential units are maintained or increased
- Less-than-significant levels of VMT are projected through project-specific or location-specific information

<sup>3</sup> “Major transit stop” is defined in Public Resources Code 21064.3 as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

<sup>4</sup> High-quality transit corridor” is defined in PRC 21155 as a corridor with fixed-route bus service with service intervals no longer than 15 minutes during peak commute hours.

- **Greater Downtown Planning Area:** The project is located within the Greater Downtown planning area, as defined in the General Plan and shown in Figure 2 of City's guidelines and is consistent with the General Plan. This is a targeted infill area of the City that generally contains low VMT generating land uses.
  - The proposed project is not located in the Greater Downtown Planning Area and would not meet this screening criterion.

The proposed project does not meet any of the screening criteria identified above; therefore, further assessment of project's VMT impact under model's base year conditions (year 2018, which is the most accurate representation of existing 2022 baseline conditions without further modifying the model, and other than the Covid pandemic, there have been no significant changes in travel patterns on the adjacent streets and in the transit networks since 2018) and cumulative conditions (year 2040) is provided below using available significance thresholds and guidance from the City.

### Project VMT Analysis

The proposed project's VMT analysis was prepared using the current 2018 RTP and the SJV travel demand model, a trip-based model. In addition, the SJV travel demand model was adjusted for consistency with the City's General Plan travel demand model. The land use input file for the regional 2018 RTP model within the City was reviewed in order to get an accurate base year estimate for the project's VMT analysis.

Per Chapter 2, Project Description, the proposed project would add an additional 365 new employees. Per standard modeling practice, employment estimates are input into the model to estimate employment VMT. The proposed project is located in TAZ #2184 of the SJV Model, as shown on Figure 4.11.3. Therefore, the project's TAZ was modified to include the new employees for the proposed medical center expansion. Consistent with standard modeling practice, the updated land use file for the SJV model was used for a base year model run to extract VMT for citywide and regional average HBW VMT per employee. Additionally, in the base year SJV model run, the new medical employees were included in category of the land use input file for a "with project" model run to accurately estimate the project's HBW VMT.

**Table 4.11-1. Project Trip Generation**

| Land Use  | ITE Code | Size/Units       | Daily        | AM Peak Hour |           |            | PM Peak Hour |            |            |
|---|----------|------------------|--------------|--------------|-----------|------------|--------------|------------|------------|
|   |          |                  |              | In           | Out       | Total      | In           | Out        | Total      |
| <b>Trip Rates<sup>1</sup></b>                                     |          |                  |              |              |           |            |              |            |            |
| Hospital  | 610      | per beds         | 22.32        | 1.29         | 0.50      | 1.79       | 0.56         | 1.13       | 1.69       |
| Hospital  | 610      | per TSF          | 10.77        | 0.55         | 0.27      | 0.82       | 0.30         | 0.56       | 0.86       |
| Single-Family Detached Housing                                    | 210      | per DU           | 9.43         | 0.18         | 0.52      | 0.70       | 0.59         | 0.35       | 0.94       |
| <b>Trip Generation</b>  |          |                  |              |              |           |            |              |            |            |
| <b>Proposed Project</b>   |          |                  |              |              |           |            |              |            |            |
| Phase 1-4 (additional 144 care beds)                              | 610      | 144 beds         | 3,214        | 186          | 72        | 258        | 80           | 163        | 243        |
| Future Expansion Phase 5 (additional 50 care beds)                | 610      | 50 beds          | 1,116        | 64           | 25        | 89         | 28           | 56         | 84         |
|   |          | <i>Subtotal</i>  | 4,330        | 250          | 97        | 347        | 108          | 219        | 327        |
| <b>Existing Buildings to be Demolished</b>                        |          |                  |              |              |           |            |              |            |            |
| Buildings to be demolished (minus McCloud Building <sup>2</sup> ) | 75.068   | TSF              | -808         | -41          | -20       | -61        | -23          | -42        | -65        |
| Single-family residence   | 1        | DU               | -9           | 0            | -1        | -1         | -1           | 0          | -1         |
|   |          | <i>Subtotal</i>  | -817         | -41          | -21       | -62        | -24          | -42        | -66        |
|   |          | <b>Net Total</b> | <b>3,513</b> | <b>209</b>   | <b>76</b> | <b>285</b> | <b>84</b>    | <b>177</b> | <b>261</b> |

Source: ITE 2021.

Notes: TSF = thousand square feet; DU = dwelling unit

<sup>1</sup> Trip rates from Trip Generation, 11th Edition, Institute of Transportation Engineers, 2021.

<sup>2</sup> Total to be demolished is 90,068 SF. McCloud Building at 15,000 SF currently used as storage space and is assumed to not generate any traffic so is not included. intentionally left blank

The HBW VMT per employee is an efficiency metric which is the ratio of total HBW employee VMT and number of employees. Both region-wide average HBW per OPR guidelines and city-wide average HBW VMT per City’s guidelines are shown in Table 4.11-2.

**Table 4.11-2. Home Based VMT per Employee**

| Jurisdiction    | Base Year Average Daily Home-Based Work VMT per Employee for Project TAZ | Jurisdictional Average (Baseline) | 15% Below Jurisdictional Average (Threshold) | Base Year Plus Project Average Daily Home-Based Work VMT per Employee for Project TAZ | % below Baseline <sup>1</sup> |
|-----------------|--|-----------------------------------|--|---|-------------------------------|
| Region (County) | 6.23   | 13.65                             | 11.61  | 6.11  | 55.2%                         |
| City            | 6.23   | 9.58                              | 8.14   | 6.11  | 36.2%                         |

Source: Appendix I.

Notes: VMT = Vehicle miles traveled

<sup>1</sup> Percentage calculated as Baseline-Base Year plus project ÷ Baseline = Project VMT % below Baseline.

The HBW VMT per employee for the base year without project is 6.23 in the TAZ and 13.65 (baseline) in the region. The HBW VMT per employee for the base year without the project is 6.11 in the TAZ and 9.58 (baseline) in the City. As shown in Table 4.11-2, the HBW VMT per employee under with project scenario, decreases (from 6.23 to 6.11) compared to the no project (baseline) scenario.

The threshold for work-based projects is that the project HBW VMT should be 15% below average regional HBW VMT per employee. The project’s HBW VMT per employee of 6.11 is less than the threshold of 15% below jurisdictional regional average of 11.61 HBW VMT. Therefore, the proposed project would not exceed the City’s VMT threshold and would have **a less-than-significant impact**.

However, since the proposed project would add over 100 new employees, per San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) Rule 9410, an Employer Based Trip Reduction program may be required to reduce VMT from private vehicles used by employees to commute to and from their worksites to reduce emissions of oxides of nitrogen (NOx), volatile organic compounds (VOC) and particulate matter (PM). The strategies to reduce VMT can include employee shuttles, staggered work hours, telecommute options, transit subsidies, and carpool/vanpool programs.

**Mitigation Measures**

None required.

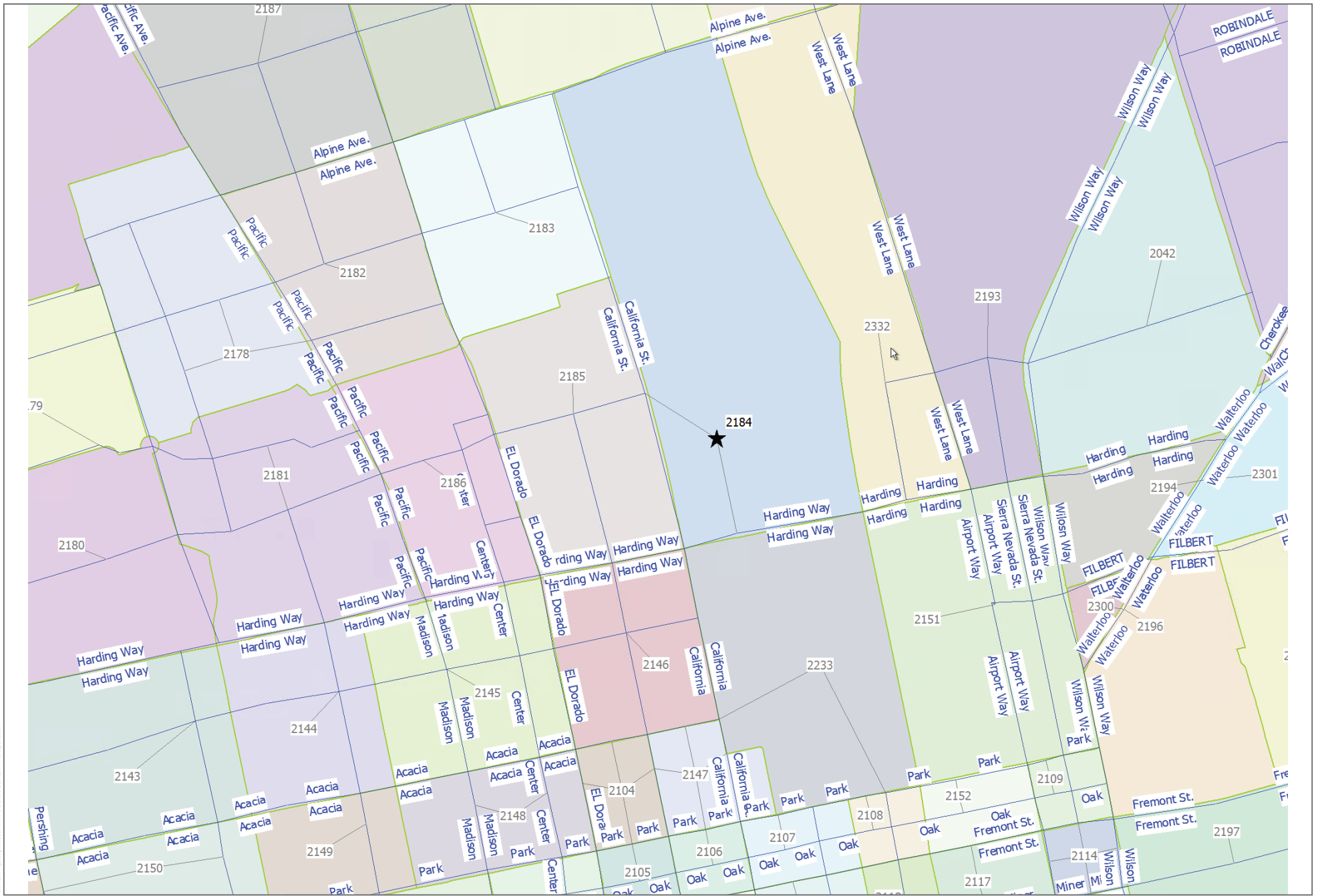


FIGURE 4.11-3

Project Traffic Analysis Zone (TAZ) - SJCOC Travel Demand Model

St. Joseph's Medical Center of Stockton Hospital Expansion Project



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**Impact 4.11-3      The proposed 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).**

As shown previously in Figure 2-9, Circulation Plan in Chapter 2, Project Description, the proposed project would modify existing vehicular and pedestrian access to the campus and would involve the construction of several new publicly accessible driveways and internal circulation lots leading to various parking lots, a new entrance to the Acute Care Hospital Tower building, new Emergency Department entrance and access, and a new ambulance entrance. The project would also include pedestrian signal enhancements to improve pedestrian safety from off-site leased facilities at the intersection of E. Harding Way and Cemetery Lane.

The following provides additional descriptions of the new project driveways and direct access points for the proposed project, the Emergency Department, and the new Parking Structure. Vehicular queues are discussed for Buildout Year 2042 plus Project conditions and represents the addition of project traffic to the horizon year traffic volumes of the traffic model utilized.

#### E. Cleveland Street Driveway

The E. Cleveland Street driveway entrance would provide access to the new Parking Structure and is intended to predominantly serve as the main access for hospital staff, as shown in Figure 2-9. There would be approximately 200-feet of drive aisle between the driveway entrance on E. Cleveland Street and the entrance of the Parking Structure. This driveway location is proposed to be unsignalized with stop control on the northbound approach (from the Parking Structure). Per a 95th percentile queuing analysis conducted for the proposed project, vehicular queues would be less than 60-feet exiting the project driveway, and therefore there would be sufficient space for exiting vehicles to queue before turning onto E. Cleveland Street. Similarly, for vehicles entering the project driveway from E. Cleveland Street, vehicular queues would be low due to the relative low volumes forecast on this segment of E. Cleveland Street.

#### E. Wyandotte Street Driveway

The proposed new Parking Structure would be located on the east side of N. California Street, between E. Wyandotte Street and Hawthorne Street. The Parking Structure would be directly accessible from the intersection of N. California Street/E. Wyandotte Street which would serve as the main public entrance for the structure. This entrance/exit of the Parking Structure would comprise the east leg of the N. California Street/E. Wyandotte Street intersection, and a majority of vehicular queueing would occur within the Parking Structure itself. Outbound vehicular queues are forecast to not exceed 70-feet, approximately four car lengths (based on 22-feet per vehicle). The exit to the Parking Structure would have two outbound lanes to expediate egress, and one inbound lane. Southbound inbound vehicles would be able to safely queue within the TWLTL along N. California Street, and vehicular queues are forecast to not exceed 35-feet (approximately 1.5 car lengths) for the southbound left turn movement into the structure. Other access points in to, and out of, the structure are proposed off E. Cleveland Street (as noted above) and nearby the intersection of N. California Street/Hawthorne Street to the south.

Due to this driveway being the primary public vehicular access to/from the Parking Structure, and the lack of hospital patient facilities in this part of the campus, pedestrian crossing facilities are not proposed across N. California Street at the E. Wyandotte Street Driveway. The existing traffic signal at the intersection of McCloud Avenue/N. California Street, two blocks south of this driveway, would accommodate pedestrian traffic destined to cross N. California Street to provide direct access to the new Acute Care Hospital Tower and Emergency Department.

### E. Hawthorne Street Driveway

The E. Hawthorne Street Driveway would comprise the east leg of the existing N. California Street/E. Hawthorne Street intersection and would provide access to both the new Parking Structure and the new Emergency Department surface parking lot. Southbound vehicles would be able to enter the E. Hawthorne Street Driveway from N. California Street via the existing TWLTL. The vehicular queues forecast to exit the driveway would not exceed 52-feet (approximately three car lengths), and queues in the TWLTL entering the driveway are forecast to not exceed 27-feet (approximately 1.5 car lengths). Upon entering the driveway, vehicles would have the option to either enter the new Parking Structure or park within the Emergency Department surface parking lot. Signage would be posted at the entrance to direct vehicles to their destination and “Keep Clear” pavement markings would be installed in front of the structure entrance.

Similar to the E. Wyandotte Driveway, this driveway would also serve public vehicular access to/from the Parking Structure, as well as a surface parking lot. Due to the lack of hospital patient facilities adjacent to this driveway, pedestrian crossing facilities are not proposed across N. California Street at the E. Hawthorne Street Driveway. The existing traffic signal at the intersection of McCloud Avenue/N. California Street, one block south of this driveway, would accommodate pedestrian traffic destined to cross N. California Street to provide direct access to the new Acute Care Hospital Tower and Emergency Department.

### McCloud Avenue Driveway

McCloud Avenue is currently an existing signalized intersection along N. California Street and would remain signalized with pedestrian crossing facilities (i.e., marked crosswalks and pedestrian signal phases). Although the proposed project would close off a majority of the roadway east of N. California Street due to the construction of the new Acute Care Hospital Tower, the east leg of McCloud Avenue would be reconfigured to be a one-way inbound access driveway for hospital traffic entering the loading area of the new acute care hospital building. Outbound vehicles at this location would be required to travel on the internal one-way, northbound drive aisle to the E. Hawthorne Street Driveway to access N. California Street.

Vehicular queues are forecast to not exceed 39-feet (approximately two car lengths) for southbound left turning traffic, and northbound through traffic queues are forecast to be no more than 167 feet and would not extend downstream into the next intersection (at Chestnut Street) approximately 210 feet away. Upon entering the McCloud Avenue driveway, vehicles would be able to directly access the new Emergency Department loading area or proceed northward towards the new Parking Structure and new Emergency Department surface parking lots via the one-way northbound drive aisle. Outbound vehicles from this driveway would also proceed northward to the E. Hawthorne Street Driveway.

Since this driveway would provide the most direct access to the new Acute Care Hospital Tower and Emergency Department and would continue to be signalized with pedestrian crossing facilities, this driveway would serve pedestrians that would need to cross N. California Street via existing crosswalks at the signalized intersection.

### Chestnut Street Driveway

The Chestnut Street Driveway would be the southernmost access point for vehicles to access the new Acute Care Hospital Tower, Emergency Department, and new Parking Structure (via the one-way northbound drive aisle). As part of the proposed project, an eastern leg of Chestnut Street would be constructed at the N. California Street/Chestnut Street intersection. Similar to the McCloud Driveway, all traffic would be inbound only and would

provide direct access to the walk-in entrance loading area for the Emergency Department, as well as access to the hospital tower. The internal circulation of the driveway would allow for traffic to move northward, one-way towards the new Parking Structure and surface parking lot, or the exit lane at the E. Hawthorne Street Driveway.

This driveway would serve public vehicular access to the Emergency Department, new Acute Care Hospital Tower, Parking Structure, and surface parking lot. Pedestrian crossing facilities are not proposed across N. California Street at the Chestnut Street Driveway due to existing traffic signals with pedestrian crossing facilities (i.e., marked crosswalks and pedestrian signal phases) at the intersections of McCloud Avenue, one block to the north; and, Walnut Street, one block south of this driveway. Those existing signalized pedestrian crossings would accommodate pedestrian traffic destined to cross N. California Street to access existing and proposed hospital facilities.

### On-Site Pedestrian and Bicycle Access

Pedestrian access for staff and visitors would be provided along N. California Street via existing and improved sidewalks along the project's frontage, with existing signalized pedestrian crossings on N. California Street at McCloud Avenue and Walnut Street. The project would also improve pedestrian crossings at the intersection of Cemetery Lane/E. Harding Way by the installation of a traffic signal which would be designed and coordinated with ingress and egress of emergency vehicles from the adjacent City Fire Station No. 9 located on the south side of E. Harding Way (see MM 4.11-1). As discussed above, this intersection would meet signal warrants per the California MUTCD in the Buildout Year 2042 plus Project conditions in the PM peak hour. Additionally, internal site circulation would facilitate the safe movement of pedestrians through the Parking Structure, and new surface parking lots.

In the vicinity of the campus, there is an existing Class II bike lane on N. California Street between E. Alpine Avenue and E. Harding Way. The Bicycle Master Plan includes the California Street Separated Bikeway project from E. Alpine Avenue to El Dorado Street. The Bikeway project is one of the highest priority projects of the Bicycle Master Plan due to its ability to promote citywide spatial equity and socio-economic equity by connecting multiple disadvantaged neighborhoods. As previously noted, the California Street Separated Bikeway project may occur in the project vicinity while the project would be under construction. This street improvement project includes the installation a Class IV Bikeway on N. California Street adjacent to the campus, as well as a "road diet" which would reduce the vehicular travel lanes from four lanes to two lanes (i.e., one travel lane in each direction). This project would improve pedestrian and bicycle access to/from the project site by promoting safe areas for pedestrians and bicyclists to circulate along N. California Street with less conflicts from vehicular traffic.

### Collision History

As previously described, based on the last 5 years of available data reported in TIMS, approximately 50 collisions were recorded in the last 5 years, averaging 10 collisions per year along the hospital's frontages on N. California Street and E. Harding Way. Within those 50 collisions, four fatalities occurred, all involving pedestrians crossing N. California Street, between E. Maple Street and E. Wyandotte Street. Of the remaining 46 collisions, none resulted in severe injuries, 12 resulted in visible injuries, and 34 resulted in complaints of pain injuries. Of the 50 collisions recorded, approximately 38 were broadside and rear end type collisions, with the remaining type of collisions consisting of head-on, sideswipe, overturned vehicles, or other. With the construction of the City's California Street Separated Bikeway project which includes Class IV separated bike lanes (separated from vehicle through traffic via pavement markings and/or flexible delineators) and 4- to 2-lane road diet along N. California Street, along with the proposed project's driveways designed to be compliant with the bikeway project, fewer lanes of traffic would be expected to reduce the overall speed of vehicles on the roadway. Also, the separated bikeway would reduce the

points of conflicts with bicyclists and pedestrians. Additionally, the proposed project would construct an up to 1,980 space Parking Structure on the project site which would reduce the need for hospital staff and visitors to cross N. California Street or E. Harding Way. With the proposed project, there would be a greater ability for vehicles to circulate the site internally between the new Acute Care Hospital Tower, Emergency Department and Parking Structure without driving on N. California Street.

The intersection of Cemetery Lane/E. Harding Way was also evaluated using available data in TIMS, and approximately two collisions were recorded in the last 5 years. There was a total of four injuries and no fatalities. Both collisions were broadside collisions involving vehicles turning from Cemetery Lane and from the driveway across the street, onto E. Harding Way. In order to provide another point of egress and ingress to the proposed project site and accommodate the increase in traffic along Cemetery Lane, the intersection of Cemetery Lane/E. Harding Way was evaluated for a traffic signal. Traffic signal warrants show that the intersection of Cemetery Lane/E. Harding Way would meet signal warrants in the Buildout Year 2042 plus Project condition in the PM peak hour. Therefore, the proposed signalization of Cemetery Lane/E. Harding Way would better facilitate safe crossings of pedestrians on E. Harding Way (see Mitigation Measure 4.11-1 proposed under Impact 4.11-1). Overall, the proposed project would be expected to reduce the number of collisions in the area, as well as reduce the severity of those collisions.

Therefore, based on the analysis of the project's new driveways and pedestrian/bicycle circulation, the proposed project's impacts as it relates to a substantial increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses would be **less than significant**.

### Mitigation Measures

None required.

Impact 4.11-4      **The proposed project would not result in inadequate emergency access.**

As discussed previously, since the proposed project is the expansion of an existing hospital facility that would relocate the Emergency Department and require a change in circulation patterns ambulances and emergency access for patients. Specifically, the new ambulance entrance would be relocated from its existing driveway on Cemetery Lane, approximately 280 feet north of E. Maple Street, to a new driveway located approximately 500 feet north of the existing driveway. Patient access to the new Emergency Department would be relocated from E. Maple Street, east of Cemetery Lane, to a new drop-off area along N. California Street, also with access to an internal surface parking lot for the Emergency Department, as well as the new parking structure. This new layout would provide exclusive and direct access for ambulances to the Emergency Department, thereby limiting conflicts between employee and patient traffic, and emergency vehicles.

Finally, the signalization of Cemetery Lane/E. Harding Way (MM 4.11-1) intersection would provide pedestrian enhancements and would provide for safer pedestrian egress and ingress and would allow emergency vehicles, including emergency vehicles from Fire Station No. 9 on the south side of E. Harding Way, to reduce any potential conflicts with pedestrian crossings and vehicles traveling along E. Harding Way. Therefore, the proposed project would have **less-than-significant impact** to emergency access.

### Mitigation Measures

None required.

## Cumulative Impacts

Where a lead agency concludes that the cumulative effects of a project, taken together with the impacts of other closely related past, present, and reasonably foreseeable future projects are significant, the lead agency then must determine whether the project’s incremental contribution to such significant cumulative impact is “cumulatively considerable” (and thus significant in and of itself).

The cumulative analysis considers the year 2042 conditions. The year 2042 conditions include development per City’s General Plan and land use forecasts and therefore includes probable future projects. The cumulative study area used to assess potential cumulative transportation impacts per CEQA (i.e., VMT analysis) includes the City. As shown in Table 4.11-3, the year 2042 no project VMT per service population (i.e., 17.90) is higher than the baseline VMT per service population (i.e., 15.16) for the Citywide average. Therefore, the probable future development per the City’s General Plan would increase VMT when compared to existing conditions. However, the regional VMT per service population would decrease from 21.24 to 19.69 between existing and Year 2042 conditions, thereby indicating more efficiency in regional travel when compared to the City. Per the City’s Guidelines, cumulative impacts should be evaluated by comparing the Citywide total VMT per service population between the “no project” and “plus project” scenarios for cumulative conditions. Therefore, the SJV travel demand model run was conducted for year 2042 conditions (with and without project) using the metric of service population. Cumulative impacts were calculated where project-added traffic resulted in a degradation in measures of effectiveness.

Impacts related to inadequate emergency access and conflicts with transit, bicycle or pedestrian transportation would not be considered additive and would be identical to Impacts 4.11-1 and 4.11-4, above, and would remain less than significant.

**Impact 4.11-5      The proposed project would not result conflict or be inconsistent with CEQA Guidelines section 15064.3(b) under cumulative conditions.**

As shown in Table 4.11-3, the VMT per service population of the project’s TAZ, region, and the City under no project conditions (i.e., 17.90) is slightly higher compared to the VMT per service population under plus project conditions (i.e., 17.76). This implies that the proposed project would not increase the City or TAZ-wide VMT per service population and therefore, would not result in a cumulatively significant impact and the impact would be **less than significant**.

**Table 4.11-3. VMT per Service Population**

| Jurisdiction    | Year 2018 No Project VMT per Service Population | Year 2042 No Project VMT per Service Population | Year 2042 Plus Project VMT per Service Population |
|-----------------|---|---|---|
| Project TAZ     | 7.44  | 10.16   | 10.23   |
| Region (County) | 21.24   | 19.69   | 19.55   |
| City            | 15.16   | 17.90   | 17.76   |

Source: Appendix I

Note: VMT = Vehicle miles traveled

## Mitigation Measures

None required.



## 4.11.5 References

- City of Stockton. 2017. Bicycle Master Plan, December 2017. Accessed July 25, 2022. [http://www.stocktonca.gov/files/Bicycle\\_Master\\_Plan\\_2017-12-05.pdf](http://www.stocktonca.gov/files/Bicycle_Master_Plan_2017-12-05.pdf).
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# 5 Other CEQA Considerations

## 5.1 Introduction

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the Environmental Impact Report (EIR) must also identify the following: (1) significant environmental effects of the proposed project; (2) significant environmental effects that cannot be avoided if the proposed project is implemented; (3) significant irreversible environmental changes that would result from implementation of the proposed project; (4) growth-inducing impacts of the proposed project; and (5) alternatives to the proposed project (evaluated in Chapter 6, Alternatives). This chapter provides all the items listed above.

## 5.2 Significant Environmental Effects

The Executive Summary and Chapter 4, which includes Sections 4.1 through 4.11 of this Draft EIR provide a comprehensive overview of the St. Joseph’s Medical Center of Stockton Hospital Expansion Project (“proposed project”) significant environmental effects, including the level of significance both before and after mitigation.

## 5.3 Significant and Unavoidable Environmental Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed project on various aspects of the environment are discussed in detail in Chapter 4 of this Draft EIR. The analysis in Chapter 4, Environmental Analysis, Sections 4.1 through 4.11, finds that the proposed project would result in the following significant and unavoidable impacts:

- Impact 4.2-1      The proposed project would conflict with applicable zoning and other regulations governing scenic quality.
- Impact 4.7-1      The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Impact 4.7-2      The proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
- Impact 4.7-3      The proposed project would result in cumulatively considerable impacts with regard to greenhouse gas emissions.

Section 4.2, Aesthetics, and Section 4.7, Greenhouses Gases, provide a comprehensive overview of the project’s significant and unavoidable environmental impacts.

## 5.4 Significant Irreversible Environmental Impacts

EIRs for certain kinds of projects, as set forth in CEQA Guidelines Section 15127, must discuss any significant irreversible environmental change that would be caused by the proposed project, as described in Section 15126.2(d) of the CEQA Guidelines. These projects include those involving (i) the adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency; (ii) the adoption by a Local Agency Formation Commission of a resolution making determinations; or (iii) the parallel preparation of an environmental impact statement under the federal National Environmental Policy Act. Here, the proposed project does not fall into one of those categories, meaning that this EIR is not required to address significant irreversible environmental changes. Even so, the City of Stockton (City) has opted, on a voluntary basis, to address that topic, as it may be of interest to members of the public.

Generally, a project would result in significant irreversible changes if:

- The primary and secondary impacts would generally commit future generations to similar uses (such as highway improvement that provides access to a previously inaccessible area);
- The project would involve a large commitment of nonrenewable resources (CEQA Guidelines Section 15126.2(c));
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Implementation of the proposed project would result in the long-term commitment of resources of the project site to continued urban land use, as has been the case for over 100 years. Development of the proposed project would likely result in or contribute to the following irreversible environmental changes:

- Irreversible consumption of energy and natural resources associated with the future use of the site.

Resources that would be permanently and continually consumed by project implementation include water, electricity, and fossil fuels. Wood products, asphalt, and aggregate materials used in concrete and asphalt (e.g., sand, gravel and stone), metals (e.g., steel, copper and lead), and petrochemical construction materials (e.g., plastics) would be used in construction along with gas and diesel fuel. With respect to operational activities, compliance with all applicable state and local building codes, including California Department of Health Care Access and Information (HCAI) (formerly the Office of Statewide Health Planning and Development [OSHPD]) as well as mitigation measures, City zoning regulations, and standard conservation features would ensure that resources are conserved to the maximum extent feasible. The proposed project would incorporate a number of sustainable practices that reduce the consumption of energy including all interior/exterior LED lighting, replace aging equipment such as chillers, boilers, air handler units, medical gas systems with more efficient equipment, increase number of EV charging stations three-fold by 2030, and installation of smart meters for landscape irrigation minimizing overwatering (please see Chapter 2 for the complete list). Nonetheless, construction and operation of the proposed project would result in irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels, and gasoline and diesel for automobiles and construction equipment.

For projects described in CEQA Guidelines Sections 15127 and 15126.2(d) a discussion of the potential for irreversible environmental damage caused by environmental accidents associated with a project is also required. While the proposed project would result in the use, transport, storage, and disposal of hazardous materials used

during project construction and operation, as described in Section 4.8, Hazards and Hazardous Materials, all such activities are highly regulated and compliance with applicable local, state and federal laws related to the use, storage and transport of hazardous materials would significantly reduce the likelihood and severity of accidents that could result in irreversible environmental damage. In addition, compliance with the Occupational Safety and Health Administration workplace and work practices requirements would avoid the exposure of persons and the environment to hazardous materials. Pursuant to the State of California Medical Waste Management Act of 1990, St. Joseph's Medical Center ("Medical Center") is required to prepare a medical waste management plan for submittal to the California Department of Public Health. Additionally, in accordance with California Health and Safety Code, Article 1, Chapter 6.95 for the business emergency plan, the Medical Center must also prepare a hazardous materials business plan for submittal to the California Environmental Reporting System. Compliance with these requirements would serve to protect against significant and irreversible change resulting from the accidental release of hazardous materials. Although irreversible environmental changes would result from the project, such changes are determined to be less than significant, and the limited use of nonrenewable resources that would be required by project construction and operation is justified.

## 5.5 Growth-Inducing Impacts

As required by Section 15126.2(e) of the CEQA Guidelines, an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, the stimulation of economic activity within the region, or the establishment of policies or other precedents that directly or indirectly encourage additional growth. Under CEQA, this growth is not to be considered necessarily detrimental, beneficial, or of significant consequence. Induced growth would be considered a significant impact if it can be demonstrated that the potential growth, directly or indirectly, significantly affects the environment.

Based on Section 15126.2(e) and the professional judgment of City staff and the EIR consultants, these circumstances are further described below.

- **Elimination of Obstacles to Growth:** This refers to the extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity or removes regulatory constraints that could result in growth unforeseen in adopted planning documents at the time of project approval.
- **Economic Effects:** This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the "multiplier effect." A "multiplier" is an economic term used to describe interrelationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

### Elimination of Obstacles to Growth

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect, though not necessarily a significant one. A physical obstacle to growth typically involves the lack of public infrastructure (i.e., water, wastewater infrastructure and roadway access). The proposed project does not extend infrastructure to serve areas where infrastructure is not available or remove infrastructure limitations. The project site is located in a developed area of the City where existing utility infrastructure is available and the new buildings

would tie into the existing infrastructure. Therefore, there would be no elimination of obstacles to growth that could be considered growth-inducing.

### Economic Effects

The proposed project would affect the local economy by the construction of a new Acute Care Hospital Tower and associated support building that would involve the direct employment of approximately 365 new full-time and part-time employees, medical residents, and students. This would result in approximately 3,230 employees working on the Medical Center campus. Construction of the project would also require temporary construction workers that would contribute to the local economy. A portion of these temporary construction workers may already be living in the area and contributing to the local economy. Other temporary construction workers may come from outside the area, and these workers would represent net new contributions to the local economy.

Additional local employment can be generated through the multiplier effect, as discussed above. The multiplier effect tends to be greater in regions with larger, diverse economies due to a decrease in the requirement to import goods and services from outside the region.

Two different types of additional employment are tracked through the multiplier effect. Indirect employment includes those additional jobs that are generated through the expenditure patterns of direct employment associated with the project. Indirect jobs tend to be in relatively close proximity to the places of employment and residence.

The multiplier effect also calculates induced employment. Induced employment follows the economic effect beyond the expenditures of the residents within the project area to include jobs created by the stream of goods and services necessary to support residences within the proposed project. When a manufacturer buys or sells products, the employment associated with those inputs or outputs are considered induced employment.

For example, when an employee of the project goes out to lunch, the person who serves the employee lunch holds a job that is indirectly related to the proposed project. When the server then goes out and spends money in the economy, the jobs generated by this third-tier effect are considered induced employment.

The multiplier effect also considers the secondary effect of employee expenditures. Thus, it includes the economic effect of the dollars spent by those employees and residents who support the employees of the project.

Increased future employment generated by employee and resident spending ultimately results in physical development of space to accommodate those employees. It is the characteristics of this physical space and its specific location that determine the type and magnitude of environmental impacts of this additional economic activity. Although the economic effect can be predicted, the actual environmental implications of this type of economic growth are too speculative to predict or evaluate, since they can be spread throughout the City and the larger region which is supported by the St. Joseph's Hospital. However, the City's General Plan assumes development of up to 13.8 million square feet of new commercial and office uses through 2040 (City of Stockton 2018).

### Impacts of Induced Growth

The growth induced directly and indirectly by the proposed project would not contribute significantly to environmental impacts in the City as well as the greater regional area. As discussed above, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on required public infrastructure or constructing a new road into an undeveloped area. An example of this indirect effect would be the expansion of water or wastewater infrastructure, which might allow for more development to be served by access to

these services. While the project includes connecting to existing utilities, given the project's location in a developed area of the City there would be no expansion of public services or infrastructure that would allow other additional growth or development to occur that has not already been planned for in the City's General Plan.

Indirect and induced population growth in the City could further contribute to the loss of open space because it may encourage the conversion of undeveloped land to urban uses. However, the proposed project would primarily serve the existing community and would not result in substantial indirect or induced population growth. As discussed in Chapter 2, Project Description, the project applicant's vision is to be known as the premier health care delivery network and teaching institution for the Northern San Joaquin Valley. The proposed project aims to expand and modernize existing facilities in order to meet current patient needs and anticipated growth in the region. As described above, the proposed project would result in approximately 365 new employees, medical residents, and students. This represents a moderate number of people that would likely be hired from the regional workforce. Although the project would generate a limited number of short-term construction jobs, these jobs would be accommodated within the regional workforce as well.

In summary, the proposed project would not induce growth and growth-inducing effects are therefore considered less than significant.

## 5.6 Cumulative Impacts

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects, and the anticipated effects of probable future projects. As indicated in the CEQA Guidelines, the discussion of cumulative impacts need not provide the same level of detail as project-related impacts. The discussion should be guided by "standards of practicality and reasonableness" (CEQA Guidelines Section 15130[b]). Although project-related impacts can be individually minor, the cumulative effects of these impacts, in combination with the impacts of other projects, could be significant under CEQA and must be addressed (CEQA Guidelines Section 15130(a)). Where a lead agency concludes that the cumulative effects of a project, taken together with the impacts of other closely related past, present, and reasonably foreseeable probable future projects results in a contribution to an existing cumulative impact, the lead agency then must determine whether the project's incremental contribution to an existing significant cumulative impact is "cumulatively considerable" (and thus significant in and of itself). The analysis of cumulative impacts is included at the end of the technical sections included in Chapter 4.

## 5.7 Other Considerations

CEQA provides that economic or social effects are not considered significant effects on the environment unless the social and/or economic changes are connected to physical environmental effects. A social or economic change related to a physical change may be considered in determining whether the physical change is significant (CEQA Guidelines Section 15382). The guidance for assessing economic and social effects is set forth in Section 15131(a) of the CEQA Guidelines:

Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes



need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on physical changes.

The project's direct and indirect physical environmental effects associated with construction and operation of the project, such as associated increases in air pollutant emissions and discovery of unanticipated cultural resources are all addressed in Chapter 4 of this Draft EIR and in the Initial Study (see Appendix B). The City has not identified any chain of cause and effect by which any economic or social changes resulting from the project would foreseeably result in additional physical consequences beyond those addressed in Chapter 4.

## 5.8 References

City of Stockton. 2018. *Envision Stockton 2040 General Plan Update and Utility Master Plan Supplements Draft EIR*. June 2018. [http://www.stocktonca.gov/files/EnvisionStockton2040GP\\_DEIR.pdf](http://www.stocktonca.gov/files/EnvisionStockton2040GP_DEIR.pdf)

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# 6 Alternatives

## 6.1 Introduction

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, environmental impact reports (EIRs) are required to “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives” (14 CCR Section 15126.6(a)). This alternatives analysis is prepared in support of CEQA’s goals to foster informed decision making and public participation (14 CCR Section 15126.6(a)). An EIR is not required to evaluate the environmental impacts of alternatives at the same level of detail as the proposed project, but it must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project.

The alternatives analysis is required even if the alternatives “would impede to some degree the attainment of the project objectives or would be more costly” (14 CCR Section 15126.6(b)). An EIR must evaluate “only those alternatives necessary to permit a reasoned choice” (14 CCR Section 15126.6(f)) and does not need to consider “every conceivable alternative” to a project (14 CCR Section 15126.6(a)). The alternatives evaluated should be “potentially feasible” (14 CCR Section 15126.6(a)), but inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact “feasible.” The final decision regarding the feasibility of alternatives lies with the decision makers for a given project who must make the necessary findings addressing the feasibility of alternatives for avoiding or substantially reducing a project’s significant environmental effects (California Public Resources Code [PRC], Section 21081; see also 14 CCR Section 15091).

This chapter describes the project alternatives selected for analysis, evaluates the environmental impacts associated with them, and compares the impacts with those of the St. Joseph’s Medical Center of Stockton Hospital Expansion Project (“proposed project”). This chapter also identifies those alternatives considered by the City of Stockton (City) but not carried forward for detailed analysis and explains the basis for the City’s decision.

In conformity with CEQA, the purpose of this analysis is to focus on alternatives that are potentially feasible, and that would avoid or substantially lessen any of the significant effects of the project. The analysis in Chapter 4, Environmental Analysis, Sections 4.1 through 4.11, finds that the proposed project would result in the following significant and unavoidable impacts:

- Impact 4.2-1      The proposed project would conflict with applicable zoning and other regulations governing scenic quality.
- Impact 4.7-1      The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Impact 4.7-2      The proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
- Impact 4.7-3      The proposed project would result in cumulatively considerable impacts with regard to greenhouse gas emissions.

The Alternatives analysis also considers those significant impacts of the proposed project that could be reduced to less-than-significant levels with mitigation, including biological resources, cultural resources, paleontological resources, hazards and hazardous materials, noise, transportation, and tribal cultural resources. To a lesser extent, the Alternatives analysis also considers those impacts of the proposed project in which mitigation is not necessary.

## 6.2 Project Objectives

As stated above, the range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project.

The specific project objectives, as provided in Chapter 2, Project Description, for the purposes of this EIR are:

- Provide additional capacity for acute care treatment for patients of all income levels and all payer sources in Stockton and the surrounding northern San Joaquin valley.
- Enhance building capacity for utilization of technology in the provision of health care services.
- Modernize and upgrade the existing Medical Center to meet seismic retrofit requirements as set forth in Senate Bill 1953 and do so without the temporary loss of use of patient beds.
- Improve flexibility of patient bed arrangements to meet surges in need for medical care such as was experienced with the COVID-19 Pandemic.
- Increase quantity and quality of space for graduate educational services with the goal of retaining physicians and other medical professional and technical staff trained at the Medical Center in Stockton and the surrounding northern San Joaquin valley.
- Improve quantity, quality, and proximity of parking for patients, visitors, and staff.
- Locate new buildings within a reasonable proximity to the existing medical center facilities to facilitate easy access for patients, visitors, and staff.
- Change internal site circulation to enhance emergency access for ambulances and patients transported by other third parties, focus non-patient access to the rear of the Medical Center, and complement City objectives of increasing reliance upon bicycle travel both around and into the site.
- Update existing utility connections to accommodate enhanced medical services and provide sufficient emergency back-up for expanded capacity.
- Create both short-term construction jobs related to development, including grading, infrastructure and building construction, and permanent employment-generating uses, consistent with City objectives for creation of employment opportunities for residents.
- Implement a Site Master Plan that maximizes the use and redevelopment of underutilized property to provide new opportunities for the construction of modernized, acute care facilities.
- Provide options for additional helicopter landing and parking to improve access for patients transported by helicopter to the expanded and relocated emergency facilities, and to accommodate a future trauma center designation should regional needs arise in the future.
- Maximize the efficient use of existing and very limited available land and buildings while replacement and modernization of some buildings are underway.

## 6.3 Summary of Alternatives

### Development of Project Alternatives

In developing the project alternatives evaluated in this EIR, the EIR preparers worked with the applicant and City staff to explore various modifications to the proposed project that could reduce environmental effects while responding to the project objectives. This effort focused first on reducing the project's significant and unavoidable impacts, which are related to consistency with policies that oversee scenic quality, and greenhouse gas (GHG) emissions. Other potentially significant impacts considered in the selection of alternatives are impacts to biological resources, cultural and tribal cultural resources, paleontological resources, hazards and hazardous materials, noise, and transportation which could be reduced to less-than-significant levels with mitigation. Other concerns raised during the Notice of Preparation (see Appendix A) scoping period include the height and size of the proposed parking structure. The Alternatives selected for analysis do not reduce all of the concerns mentioned above but have been selected for their ability to reduce the most significant project impacts.

### Alternatives Considered but Rejected as Infeasible

As described above, Section 15126.6(c) of the CEQA Guidelines requires EIRs to identify any alternatives that were considered by the lead agency but were rejected as infeasible for detailed study, and briefly explain the reasons underlying the lead agency's determination. Furthermore, Section 15126(f)(1) states that "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire or control or otherwise have access to the alternative site. No one of these factors established a fixed limit on the scope of reasonable alternatives."

An off-site alternative was rejected as infeasible because the project's proposed Master Development Plan (MDP) includes the existing St. Joseph's Medical Center campus which provides various medical buildings that function as a unit. Development of new components such as the Parking Structure and new main hospital building ("Acute Care Hospital Tower") on off-site parcels would affect accessibility and site connectivity; in addition, the project applicant does not own any other property large enough that would be feasible for this project and cannot "reasonably acquire, control or otherwise have access to [an] alternative site" (refer to CEQA Guidelines Section 15126[f][1]).

Similarly, an alternative proposing to build a separate satellite campus, rather than expanding the existing Medical Center campus was rejected as infeasible because of the lack of property under the ownership of the applicant; lack of connectivity to the existing medical center facilities and serves; and environmental impacts and associated costs would likely be greater and more severe than the proposed project. Building a second campus would require new infrastructure and utility connections, and other public and private services that may not be available at another site in addition to the potential loss of biological or cultural resources. It is likely that a second campus would require at least a partial duplication of services with those of the existing Medical Center campus for core and support functions, such as administrative staff. As such, it can be reasonably assumed that this alternative would significantly increase staffing requirements and costs in order to provide healthcare services to the community at the level now provided. This alternative would also increase vehicle miles traveled from the travel of staff, residents, and patients between the two campuses.

An alternative proposing to eliminate the multi-story Parking Structure from the project was rejected as infeasible because without additional parking, the Medical Center would not be able to accommodate the anticipated need

for expanded medical services resulting in more visitors, patients, and staff. It is likely that off-site parcels would be required to accommodate parking needs, as well as a shuttle service to the main Medical Center campus. This alternative would also require the elimination or relocation of the proposed heliport(s), which would affect the Medical Center's ability to provide timely emergency medical care.

### Project Alternatives Selected for Analysis

This section provides an evaluation of the environmental effects of each alternative selected relative to the environmental effects of the proposed project. These conclusions are listed in the alternatives summary matrix provided at the end of this discussion.

The alternatives to be analyzed in comparison to the proposed project include:

- **Alternative 1: No Project/No Development Alternative.** This alternative assumes the existing St. Joseph's Medical Center campus would remain as currently designed and a MDP would not be prepared. The existing buildings would all remain and a new Acute Care Hospital Tower, Parking Structure, central utility plant and other supporting facilities would not be developed.
- **Alternative 2: Reduced Scope Alternative.** This alternative would reduce the scope of expansion of the Medical Center as compared to the proposed project. The same as the proposed project, project components including a multi-story Parking Structure, Acute Care Hospital Tower, and other components would still be planned, but would be reduced in size and scale. This alternative would still expand the Medical Center and its ability to deliver healthcare services to the community, albeit to a lesser extent as compared to the proposed project.
- **Alternative 3: Reduced Parking Alternative.** This alternative would reduce the scope of the proposed new Parking Structure compared to the proposed project. The Reduced Parking Alternative would include all the same elements under the proposed project but would reduce the size and capacity of the new Parking Structure.

## 6.3.1 Alternative 1: No Project Alternative

### Description

CEQA Guidelines Section 15126.6(e) requires that an EIR evaluate a "No Project Alternative," which is intended to allow decision-makers the ability to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The No Project Alternative considers the effects of forgoing the project entirely and leaving the project site in its current condition. Under this alternative, the existing Medical Center would not be expanded or upgraded in any way and a MDP would not be prepared for the campus. No new buildings would be constructed, no existing buildings would be demolished or modernized, and the Medical Center would continue to provide the same amount of healthcare services as current conditions.

### Comparative Analysis of Environmental Effects

The No Project/No Development Alternative would produce no changes on the project site because the site would remain in its current condition, effectively eliminating the project impacts discussed in chapter 4 of this Draft EIR and the Initial Study (see Appendix B). Under the No Project/No Development Alternative, there would be no new project construction or operational activities and no new vehicle trips. No building demolition, construction, or ground disturbance would occur so there would be no changes to cultural resources, visual conditions, biological resources, ambient noise, or effects to other existing resources in the project area. There would be no air emissions

or GHG emissions associated with construction and operation activities. No new utilities, or services would be needed to serve new buildings or land uses. All impacts that would occur from the proposed project would be avoided under this Alternative, including the significant impact resulting from conflict with regulations governing scenic quality and GHG emissions.

### Relationship to Proposed Project Objectives

The No Project/No Development Alternative would fail to achieve the proposed project objectives listed above and in Chapter 2, Project Description. This includes objectives for providing additional capacity for acute care treatment, meeting seismic retrofit requirements, improved ability to meet surges in need for medical care, and enhanced emergency access.

## 6.3.2 Alternative 2: Reduced Scope Alternative

This alternative would reduce the scope of expansion of the Medical Center as compared to the proposed project. The Reduced Scope Alternative (Alternative 2) would still include a new multistory Parking Structure, Acute Care Hospital Tower, replacement of the existing Central Utility Plant, and expansion of the existing Generator building and other required support facilities, including temporary uses and facilities (i.e., heliports), within the Medical Center campus. However, the overall level of development would be less than the proposed project. The new Acute Care Hospital Tower would be reduced in height to approximately 80 feet (ft) as compared to 115 ft. under the proposed project and have an approximate building area of 215,000 square feet (sf), as compared to 331,000 sf under the proposed project. The new Parking Structure would be reduced in height to 75 feet tall, compared to 115 ft under the proposed project, and would have an approximate building area of approximately 525,000 sf, as compared to up to 800,000 sf under the proposed project. The Parking Structure would still be designed to accommodate new heliport options as described under the proposed project. The new Parking Structure would provide 580 fewer parking spaces than the proposed project for a total of 1,400 spaces. The new Central Utility Plant would be located at the corner of E. Cleveland Street and Cemetery Lane and would be reduced to 20,000 sf, compared to 30,000 sf under the proposed project. No replacement or changes to the existing Plant Maintenance building would occur.<sup>1</sup>

Additionally, Alternative 2 would not include the future Phase 5 Expansion that would expand the new Acute Care Hospital Tower and provide for additional parking. Since there would be no further expansion of the Acute Care Hospital Tower, this alternative would provide 144 new inpatient beds, compared to 194 new beds under the proposed project. Table 6-1 summarizes the project components under Alternative 2 as compared to the proposed project. This alternative would still expand the Medical Center and its ability to deliver healthcare services to the community, albeit to a lesser extent as compared to the proposed project.

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<sup>1</sup> Under the proposed project, two options are presented in the MDP regarding the locations of the Central Utility Plant and Plant Maintenance building. Option A includes demolishing the existing Plant Maintenance Building, placing the new Central Utility Plant building at that location, and building a replacement Plant Maintenance building at the corner of E. Cleveland Street and Cemetery Lane. Option B places the new Central Utility Plant building at the corner of E. Cleveland Street and Cemetery Lane with no change to the existing Plant Maintenance building. Alternative 2 would follow Option B.



**Table 6-1. Alternative 2 Reduced Scope Building Summary Comparison**

| Building Name                                 | Approximate Building Area (sf)                                |  | Building Height  |   |
|---|---|--|--|---|
|   | Proposed Project  | Alternative 2                                  | Proposed Project   | Alternative 2   |
| <b>Initial Expansion (Phases 1-4)</b>         |   |  |  |   |
| New Acute Care Hospital Tower                 | Up to 331,000 sf  | Up to 215,000 sf                               | Up to five (5) stories (115 ft excluding mechanical screen)  | Up to four (4) stories (80 ft excluding mechanical screen)  |
| New Multistory Parking Structure              | Up to 1,980 parking stalls<br>Up to 800,000 sf                | Up to 1,400 parking stalls<br>Up to 525,000 sf | Nine (9) tiers elevated 115 ft to top of parking deck parapet, excluding mechanical screen and heliports | Ground + six (6) tiers elevated 75 ft to top of parking deck parapet, excluding mechanical screen and heliports |
| New Central Utility Plant                     | Up to 30,000 sf   | Up to 20,000 sf                                | Up to two (2) stories (60 ft)  | Up to two (2) stories (55 ft)   |
| New Fuel Tank Yard                            | Up to 3,500 sf  |  | 55 ft  |   |
| New Generator Building Addition               | Up to 3,500 sf  |  | 55 ft  |   |
| New Plant Maintenance Building                | Up to 18,000 sf   | N/A  | Up to two (2) stories (55 ft)  | N/A   |
| <b>Total</b>                                  | <b>1,186,000 sf</b>   | <b>767,000 sf</b>                              |  |   |
| <b>Phase 5 Expansion</b>                      |   |  |  |   |
| Acute Care Hospital Tower II                  | Potential expansion up to 150,000 sf                          | N/A  | Up to five (5) stories (80 ft excluding mechanical screen) <sup>3</sup>                                  | N/A   |
| Parking Structure (location to be determined) | To be determined<br>Parking ratio of up to 5.6 stalls per bed | N/A  | To be determined   | N/A   |

**Source:** St. Joseph's Medical Center 2022.

The Alternatives analysis assumes that all applicable mitigation measures proposed for the project would still apply to this alternative.

### Comparative Analysis of Environmental Effects

Under the Reduced Scope Alternative, there would be a smaller development footprint that would accommodate 50 fewer inpatient beds and 580 fewer parking spaces compared to the proposed project. This reduced scope of development would result in impacts that are somewhat less severe or similar to those of the proposed project. A comparison between the environmental effects of the proposed project and of the Reduced Scope Alternative is included below.

### Impacts Identified as Being the Same or Similar to the Proposed Project

This alternative would have the same or similar impacts as the proposed project regarding biological resources, cultural and tribal cultural resources, and geology and soils (including paleontological resources). Because development in the project area would occur in the same area as the proposed project and would generally result in the same area or disturbance, there would be similar potential for impacts to biological resources during construction, as well cultural and tribal cultural resources or paleontological resources during ground-disturbing construction activities. To prevent impacts to biological resources, Alternative 2 would still require compliance with the project's conditions of approval (COA) including COA-1 for preconstruction nesting bird surveys and COA-2 for preconstruction roosting bat surveys. Additionally, while there is low potential for encountering intact cultural deposits, tribal cultural resources, buried human remains, or paleontological resources, this alternative would be required to comply with Mitigation Measures 4.4-2, 4.4-3, 4.4-4, and 4.6-8, the same as the proposed project.

The proposed project determined that there would be a significant impact associated with the presence of lead-based paints on the outside doors of the Main Hospital Wing and McCloud Building, which would be demolished to accommodate the new Acute Care Hospital Tower. Mitigation Measure 4.8-1 would require an abatement work plan and a monitoring plan for the lead-based paint during building demolition. The Reduced Scope Alternative would still require demolition of these two buildings to accommodate the new Acute Care Hospital Tower and would require compliance with Mitigation Measure 4.8-1 to reduce the impact to a less-than-significant level. There would be no change to the severity of the impact as compared to the proposed project.

### Impacts Identified as Being Less Severe than the Proposed Project

The Reduced Scope Alternative would reduce the severity of impacts related to air quality, aesthetics, energy, GHG emissions, noise, public utilities, and transportation.

This Alternative would reduce pollutant emissions and energy associated with construction and operation, since new buildings would be reduced in size; several components including the Phase 5 expansion would not be included; and fewer new patients, staff, and visitors would be accommodated at the Medical Center. As discussed in Sections 4.1 Air Quality and 4.5 Energy of this Draft EIR, proposed project impacts regarding the potential to conflict with air quality plans, increase criteria pollutants, increase exposure of sensitive receptors to substantial pollutants (with Mitigation Measure 4.1-1), contribute to cumulative air quality impacts, increase in energy consumption, and conflict with energy plans would all be less than significant. Alternative 2 would not reduce these impacts such that there would be no impact but would lessen the intensity of these less-than-significant impacts because the scope of the project is reduced.

As discussed in Section 4.2, Aesthetics, the proposed project would result in a significant and unavoidable impact regarding conflict with regulations governing scenic quality. This is because the approval of the project's MDP would allow for buildings that are substantially taller than normally allowed by the zoning development standards provided in Title 16 of the City's Development Code. Specifically, this would allow for the Acute Care Hospital Tower and the Parking Structure to be up to 115 feet tall, greater than the height limit of 75 feet for hospitals within parcels zoned for Office Commercial/General Commercial. Under Alternative 2, the MDP would still allow for a deviation from the City's established height limit, but this would be limited to the proposed 80-foot-tall Acute Care Hospital Tower, which would only be 5 feet taller than what is allowed under the Development Code. The Parking Structure would be 75 feet tall to the top of parking deck parapet, which would comply with the existing height limit. Therefore, while Alternative 2 would still require a variance to allow for a taller building because it would exceed the City's building height limit adopted for the purpose of protecting scenic quality, it would be to a lesser extent than the proposed project.

As discussed in Section 4.7, Greenhouse Gas Emissions, the proposed project would result in significant and unavoidable impacts regarding the generation of GHG emissions and conflict with applicable plans or regulations adopted for the purpose of reducing GHG emissions. These significant and unavoidable impacts are due to the estimated annual operational GHG emissions of 24 MT CO<sub>2</sub>e/service population/per year, which is greater than the project-specific efficiency threshold of 0.50 MT CO<sub>2</sub>e/service population/per year. The Reduced Scope Alternative would reduce operational GHG emissions due to the reduced size and scale of new components as well as a reduction in the overall number of new patients and staff. However, this alternative is not substantially less intense than the proposed project, such that operational GHG emissions would be significantly less than the proposed project and would meet the efficiency threshold of 0.50 MT CO<sub>2</sub>e/service population/per year. While there would be a reduction in the amount of GHG emissions produced from project operations, the alternative would still result in significant and unavoidable project-level and cumulative GHG impacts. Mitigation Measures 4.7-1 and 4.7-2 would still be required to implement GHG emissions reduction measures and to contribute to an off-site GHG emissions reduction program or the payment of GHG offset fees to help reduce the impact.

Under Alternative 2, impacts related to noise would continue to be less than significant with mitigation, but these impacts would be less severe compared to the proposed project. Project construction activities are anticipated to start at 6:30 a.m. which would be outside the allowable hours of construction under the City's Municipal Code which is 7:00 a.m., and nighttime operation of the proposed Central Utility Plant may exceed the City's nighttime noise standard at nearby noise-sensitive receptors. While impacts under this alternative may be reduced from the proposed project because of a reduction in the amount of construction and potential for smaller noise-generating equipment to be housed at the Central Utility Plant, this alternative is still anticipated to require compliance with Mitigation Measure 4.9-1 to address construction noise and Mitigation Measure 4.9-2 to minimize operational noise levels from the Central Utility Plant.

As discussed in Section 4.10, Public Utilities, the proposed project would increase operational water demand by 243.6 acre-feet per year (AFY) or 79,357,944 gallons per year (GPY). This water demand does not include water used for construction which would be needed for dust control and other construction needs, since this water demand would be relatively low compared to what full buildout operational demand would be and is considered negligible. Alternative 2 would reduce water and wastewater demand compared to the proposed project, primarily resulting from removal of Phase 5 from the project which would result in 50 fewer new inpatient beds. The Water Supply Assessment (WSA) prepared for the project (included under Appendix H) assumes that each new bed would demand 350 gallons of water per day (GPD). Therefore, with 50 fewer inpatient beds, there would be a reduction in water demand of 23,100 GPD or 8,316,000 gallons per year (GPY). Alternative 2 would also reduce the size of buildings, which would reduce water needed for construction, although this would be negligible compared to operational demand and is therefore not quantified. Alternative 2 would not reduce water demand such that there would be no impact but, would lessen the intensity of this less-than-significant impact.

Similarly, the reduction in 50 inpatient beds would also reduce wastewater demand compared to the proposed project. According to Appendix H, each new bed would generate an average of 500 GPD of wastewater. Therefore, 50 fewer inpatient beds would result in a reduction of 25,000 GPD of wastewater compared to the proposed project. Wastewater impacts would still be less than significant but would be less severe than the proposed project.

The project's increase in demand for solid waste disposal is also addressed in Section 4.10 of this Draft EIR. The amount of operational solid waste generated by the project is based on CalRecycle guidance for hospital land uses, which is 16 pounds per day per bed. Therefore, 50 fewer inpatient beds under Alternative 2 would result in 800 fewer pounds of solid waste per day. For construction, the amount of waste and debris produced is estimated to be 3.89 pounds per sf of construction and 155 pounds per sf of demolition, based on guidance from the US Environmental

Protection Agency. As shown in Table 6-1, Alternative 2 would result in approximately 767,000 sf of construction. Demolition would be the same with the exception of the 8,962 sf Plant Maintenance building, which would remain in place, for a total of 81,106 sf of demolition. This would result in 2,983,630 pounds (1,492 tons) of construction waste and 12,571,430 pounds (6,286 tons) of demolition waste, compared to 2,599 tons of construction waste and 6,980 tons of demolition waste for the proposed project. Solid waste impacts would still be less than significant but would be less severe than the proposed project.

As discussed in Section 4.11, Transportation and Circulation, the proposed project would warrant a new traffic signal at the Cemetery Lane/E. Harding Way intersection to ensure pedestrian safety and emergency access would not be affected. Under this alternative, the proposed project would accommodate 50 fewer inpatient beds which would reduce trip generation from the project. This reduction would help to reduce project traffic at the Cemetery Lane/E. Harding Way intersection by approximately 10 project trips. This reduction in traffic would result in the intersection not meeting the peak hour signal warrant, below the 100 vehicles per hour approach threshold for minor street approaches. The new traffic signal would not be warranted under this alternative and therefore this impact would be less than significant without requiring mitigation.

### Impacts Identified as Being More Severe than the Proposed Project

There would be no impacts identified as being more severe than the proposed project.

### Relationship to Proposed Project Objectives

The Reduced Scope Alternative would fully achieve the following project objectives:

- Locate new buildings within a reasonable proximity to the existing medical center facilities to facilitate easy access for patients, visitors, and staff.
- Modernize and upgrade the existing Medical Center to meet seismic retrofit requirements as set forth in Senate Bill 1953 and do so without the temporary loss of use of patient beds.
- Change internal site circulation to enhance emergency access for ambulances and patients transported by other third parties, focus non-patient access to the rear of the Medical Center, and complement City objectives of increasing reliance upon bicycle travel both around and into the site.
- Update existing utility connections to accommodate enhanced medical services and provide sufficient emergency back-up for expanded capacity.
- Provide options for additional helicopter landing and parking to improve access for patients transported by helicopter to the expanded and relocated emergency facilities, and to accommodate a future trauma center designation should regional needs arise in the future.
- Maximize the efficient use of existing and very limited available land and buildings while replacement and modernization of some buildings are underway.

The following project objectives would be achieved, but would be less effective than the proposed project due to reduced capacity, parking, and staffing compared to the proposed project:

- Provide additional capacity for acute care treatment for patients of all income levels and all payer sources in Stockton and the surrounding northern San Joaquin valley.
- Enhance building capacity for utilization of technology in the provision of health care services.

- Improve flexibility of patient bed arrangements to meet surges in need for medical care such as was experienced with the COVID-19 Pandemic.
- Increase quantity and quality of space for graduate educational services with the goal of retaining physicians and other medical professional and technical staff trained at the Medical Center in Stockton and the surrounding northern San Joaquin valley.
- Improve quantity, quality, and proximity of parking for patients, visitors, and staff.
- Create both short-term construction jobs related to development, including grading, infrastructure and building construction, and permanent employment-generating uses, consistent with City objectives for creation of employment opportunities for residents.
- Implement a Site Master Plan that maximizes the use and redevelopment of underutilized property to provide new opportunities for the construction of modernized, acute care facilities.

There are no project objectives that Alternative 2 would fail to achieve. This alternative would meet all project objectives, although the reduction in capacity, parking, and overall scope of the project would result in this alternative being less effective in achieving seven (7) of these objectives. Building modernizations, seismic upgrades, heliport options, and the general location of new components would remain the same.

### 6.3.3 Alternative 3: Reduced Parking Alternative

This alternative would reduce the scope of the proposed new Parking Structure compared to the proposed project. The Reduced Parking Alternative (Alternative 3) would include all elements under the proposed project but would reduce the size and capacity of the new Parking Structure. The Parking Structure would be approximately 65 ft tall, compared to 115 ft under the proposed project, and would have an approximate building area of approximately 450,000 sf reduced from up to 800,000 sf. The Parking Structure would provide 780 fewer parking spaces than the proposed project for a total of approximately 1,200 spaces. Similar to the proposed project, this alternative would still include options for new heliport facilities to be located on the roof of the Parking Structure. All other components would be the same as the proposed project, including the Phase 5 Expansion which would further expand the Acute Care Hospital Tower and potentially add new parking in the future (for a parking ratio of up to 3.6 stalls per bed).

Table 6-2 summarizes the project components under the Reduced Parking Alternative.

**Table 6-2. Reduced Parking Alternative Expansion Building Summary Comparison**

| Building Name                         | Approximate Building Area (sf)                 |  | Building Height   |   |
|---------------------------------------|--|--|---|---|
|                                       | Proposed Project                               | Alternative 3                                  | Proposed Project  | Alternative 3   |
| <b>Initial Expansion (Phases 1-4)</b> |  |  |   |   |
| New Acute Care Hospital Tower         | Up to 331,000 sf                               |  | Up to five (5) stories<br>(115 ft excluding mechanical screen)  |   |
| New Multistory Parking Structure      | Up to 1,980 parking stalls<br>Up to 800,000 sf | Up to 1,200 parking stalls<br>Up to 450,000 sf | Nine (9) tiers elevated<br>115 ft to top of parking deck parapet, excluding mechanical screen and heliports | Ground + five (5) tiers elevated<br>65 ft to top of parking deck parapet, excluding mechanical screen and heliports |

**Table 6-2. Reduced Parking Alternative Expansion Building Summary Comparison**

| Building Name                                 | Approximate Building Area (sf)                                |                   | Building Height   |               |
|---|---|-------------------|---|---------------|
|   | Proposed Project  | Alternative 3     | Proposed Project  | Alternative 3 |
| New Central Utility Plant                     | Up to 30,000 sf   |                   | Up to two (2) stories (60 ft)   |               |
| New Fuel Tank Yard                            | Up to 3,500 sf  |                   | 55 ft   |               |
| New Generator Building Addition               | Up to 3,500 sf  |                   | 55 ft   |               |
| New Plant Maintenance Building                | Up to 18,000 sf   |                   | Up to two (2) stories (55 ft)   |               |
| <b>Total</b>                                  | <b>1,186,000 sf</b>   | <b>836,000 sf</b> |   |               |
| <b>Phase 5 Expansion</b>                      |   |                   |   |               |
| Acute Care Hospital Tower II                  | Potential expansion up to 150,000 sf                          |                   | Up to five (5) stories (80 ft excluding mechanical screen) <sup>3</sup> |               |
| Parking Structure (location to be determined) | To be determined<br>Parking ratio of up to 5.6 stalls per bed |                   | To be determined  |               |

Source: St. Joseph’s Medical Center 2022.

### Comparative Analysis of Environmental Effects

The Reduced Parking Alternative would primarily address conflicts with regulations adopted for protecting scenic quality, as well as the concern raised during the NOP scoping period regarding the height and size of the Parking Structure. Less construction associated with the Parking Structure would also result in some reduction of air pollutants and GHG emissions compared to the proposed project. The alternatives analysis assumes that all applicable mitigation measures for the proposed project would also apply to this alternative.

### Impacts Identified as Being the Same or Similar to the Proposed Project

This alternative would have the same or similar impacts as the proposed project regarding biological resources, cultural and tribal cultural resources, and geology and soils (including paleontological resources), for the same reasons presented in the analysis for Alternative 2. Building demolition and new development would occur in the same area of disturbance as the proposed project, and Alternative 3 would require the same ground-disturbing activities that may result in unanticipated discovery of buried resources or human remains. To prevent impacts to biological resources, the Reduced Parking Alternative would require compliance with COA-1 for preconstruction nesting bird surveys and COA-2 for preconstruction roosting bat surveys. Additionally, the project would comply with Mitigation Measures 4.4-2, 4.4-3, 4.4-4, and 4.6-8 to address cultural and tribal cultural resources, human remains, and paleontological resources, the same as the proposed project.

Alternative 3 would also require demolition of the Main Hospital Wing and McCloud Building to accommodate the new Acute Care Hospital Tower, which may pose a risk of exposure to lead-based paints from the doors of those building. The same as the proposed project, Mitigation Measure 4.8-1 would require an abatement work plan and



a monitoring plan for the lead-based paint during building demolition. There would be no change to impact severity under this alternative compared to the proposed project.

Because the Reduced Parking Alternative would not result in a reduction of inpatient beds, it is anticipated that public utilities and transportation impacts would remain the same as the proposed project. As discussed in Section 4.10, Public Utilities, the proposed project would be served by existing utilities and impacts would be less than significant. The majority of wastewater and water demand would come from operation of the Medical Center, which would remain the same under Alternative 3 as the proposed project, rather than from construction of the Parking Structure. Water and wastewater demand from construction would be negligible compared to operational demand and is therefore not quantified. Impacts to storm drainage and telecommunications would remain less than significant, the same as the proposed project. Additionally, since Alternative 3 would not reduce the number of inpatient beds, it is expected that no significant reduction in traffic would occur that would reduce the need for the new traffic signal at Cemetery Lane/E. Harding Way as described under Mitigation Measure 4.11-1. This mitigation would still be required for transportation impacts to be less than significant, the same as the proposed project.

As discussed in Section 4.7, Greenhouse Gas Emissions, the proposed project would result in significant and unavoidable impacts regarding the generation of GHG emissions and would conflict with applicable plans or regulations adopted for the purpose of reducing GHG emissions due to the estimated annual operational GHG emissions of 24 MT CO<sub>2</sub>e/service population/per year. These emissions would be greater than the project-specific efficiency threshold of 0.50 MT CO<sub>2</sub>e/service population/per year. As shown in Table 6-2, Alternative 3 would only reduce the Parking Structure by 350,000 sf; there would be little to no changes in the operation of the Parking Structure. The Reduced Parking Alternative would result in a slight reduction in construction emissions due to the smaller structure but would have a negligible reduction in operation emissions. Other project components would remain the same as the proposed project; therefore, there would still be significant and unavoidable project-level and cumulative GHG impacts under Alternative 3. Mitigation Measures 4.7-1 and 4.7-2 would still be required to implement GHG emissions reduction measures and to contribute to an off-site GHG emissions reduction program or the payment of GHG offset fees.

### Impacts Identified as Being Less Severe than the Proposed Project

The Reduced Parking Alternative would reduce the severity of impacts related to air quality, aesthetics, energy, and noise.

This alternative would result in some reduction of air pollutant emissions and energy associated with construction of the Parking Structure, since it would be reduced in size to nearly half the size of the proposed project. As discussed in Sections 4.1 Air Quality and 4.5 Energy of this Draft EIR, proposed project impacts regarding conflicts with air quality plans, increase in criteria pollutants, exposure of sensitive receptors to substantial pollutants (with Mitigation Measure 4.1-1), cumulative air quality impacts, consumption of energy, and conflict with energy plans would all be less than significant. Alternative 3 would not eliminate these impacts such that there would be no impact but would lessen the intensity of these less-than-significant impacts as compared to the proposed project.

As discussed in Section 4.2, Aesthetics, the proposed project would result in a significant and unavoidable impact regarding conflicts with regulations governing scenic quality because of the deviation from the City's Development Code that establishes height limits for parcels zoned for Office Commercial/General Commercial. Under the Reduced Parking Alternative, the Parking Structure would be 65 feet in height, approximately 10 feet lower than the normally allowable maximum height of 75 feet. However, since the Acute Care Hospital Tower would remain 115 feet tall the same as under the proposed project, Alternative 3 would still result in a significant impact resulting

from exceeding the City's building height limit adopted for the purpose of protecting scenic quality, the same as the proposed project.

As previously described, the amount of waste and debris produced is estimated to be 3.89 pounds per sf of construction and 155 pounds per sf of demolition, based on guidance from the US Environmental Protection Agency. As shown in Table 6-2, Alternative 3 would result in approximately 986,000 sf of construction. This would result in 3,835,540 pounds (1,918 tons) of construction waste, compared to 2,599 tons of construction waste under the proposed project. Demolition waste would be the same as the proposed project (6,980 tons). Alternative 3 would not eliminate the solid waste impact such that there would be no impact but would lessen the intensity of this less-than-significant impact compared to the proposed project.

Under Alternative 3, impacts related to noise would continue to be less than significant with mitigation, but these impacts would be less severe compared to the proposed project. Project construction activities are still anticipated to take place between 6:30 a.m. and 7:00 a.m. which would be outside the allowable hours of construction under the City's Municipal Code, and nighttime operation of the proposed Central Utility Plant may exceed the City's nighttime noise standard at nearby noise-sensitive receptors. Noise impacts from construction of the Parking Structure would be slightly reduced because construction activities would take less time compared to the project. However, this alternative would still require compliance with Mitigation Measure 4.9-1 to address construction noise outside of allowable hours and Mitigation Measure 4.9-2 to minimize operational noise levels from the Central Utility Plant, which would not change under this alternative.

### Impacts Identified as Being More Severe than the Proposed Project

There would be no impacts identified as being more severe than the proposed project.

### Relationship to Proposed Project Objectives

The Reduced Scope Alternative would fully achieve the following project objectives:

- Locate new buildings within a reasonable proximity to the existing medical center facilities to facilitate easy access for patients, visitors, and staff.
- Modernize and upgrade the existing Medical Center to meet seismic retrofit requirements as set forth in Senate Bill 1953 and do so without the temporary loss of use of patient beds.
- Change internal site circulation to enhance emergency access for ambulances and patients transported by other third parties, focus non-patient access to the rear of the Medical Center, and complement City objectives of increasing reliance upon bicycle travel both around and into the site.
- Update existing utility connections to accommodate enhanced medical services and provide sufficient emergency back-up for expanded capacity.
- Provide options for additional helicopter landing and parking to improve access for patients transported by helicopter to the expanded and relocated emergency facilities, and to accommodate a future trauma center designation should regional needs arise in the future.
- Maximize the efficient use of existing and very limited available land and buildings while replacement and modernization of some buildings are underway.
- Provide additional capacity for acute care treatment for patients of all income levels and all payer sources in Stockton and the surrounding northern San Joaquin valley.

- Enhance building capacity for utilization of technology in the provision of health care services.
- Increase quantity and quality of space for graduate educational services with the goal of retaining physicians and other medical professional and technical staff trained at the Medical Center in Stockton and the surrounding northern San Joaquin valley.
- Implement a Site Master Plan that maximizes the use and redevelopment of underutilized property to provide new opportunities for the construction of modernized, acute care facilities.
- Improve flexibility of patient bed arrangements to meet surges in need for medical care such as was experienced with the COVID-19 Pandemic.

The following project objectives would be achieved, but would be less effective than the proposed project due to reduced parking and construction employees required to construct the Parking Structure compared to the proposed project:

- Improve quantity, quality, and proximity of parking for patients, visitors, and staff.
- Create both short-term construction jobs related to development, including grading, infrastructure and building construction, and permanent employment-generating uses, consistent with City objectives for creation of employment opportunities for residents.

There are no project objectives that Alternative 3 would fail to achieve. This alternative would meet all of the project objectives, although the reduction of the Parking Structure would result in this alternative being less effective in achieving two (2) of these objectives. All other components, including building modernization, seismic upgrades, heliport options, and the general location of new components would remain the same as the proposed project.

## 6.4 Summary Matrix

A matrix displaying the major characteristics and significant environmental effects of each Alternative is provided in Table 6-3 to summarize the comparison with the proposed project. The environmental topics that had significant impacts (significant and unavoidable, or requiring mitigation to reduce the impact to a less-than-significant level) include those specific impacts within the table, while the environmental topics with no significant impacts are summarized.

**Table 6-3. Summary of Project and Alternatives Impacts and Mitigation Measures**

| Environmental Impact <sup>1</sup>  | Proposed Project  | Alternative 1: No Project | Alternative 2: Reduced Scope | Alternative 3: Reduced Parking |
|--|-------------------|---------------------------|------------------------------|--------------------------------|
| <b>4.1 Air Quality</b>   |                   |                           |                              |                                |
| 4.1-3 The proposed project could expose sensitive receptors to substantial pollutant concentrations.             | LTS with MM 4.1-1 | NI ▼                      | LTS with MM 4.1-1 ▼          | LTS with MM 4.1-1 ▼            |
| <b>4.2 Aesthetics</b>  |                   |                           |                              |                                |
| 4.2-1 The proposed project would conflict with applicable zoning and other regulations governing scenic quality. | SU                | NI ▼                      | SU ▼                         | SU ▼                           |
| <b>4.3 Biological Resources</b>  |                   |                           |                              |                                |
| Biological Resources (general)   | LTS               | NI ▼                      | LTS (-)                      | LTS (-)                        |

**Table 6-3. Summary of Project and Alternatives Impacts and Mitigation Measures**

| Environmental Impact <sup>1</sup>  | Proposed Project                   | Alternative 1: No Project | Alternative 2: Reduced Scope         | Alternative 3: Reduced Parking       |
|--|------------------------------------|---------------------------|--------------------------------------|--------------------------------------|
| <b>4.4 Cultural and Tribal Cultural Resources</b>  |                                    |                           |                                      |                                      |
| 4.4-2 The proposed project could cause a substantial adverse change in the significance of an historical resource of an archaeological nature or a unique archaeological resource. | LTS with MM 4.4-2                  | NI ▼                      | LTS with MM 4.4-2(-)                 | LTS with MM 4.4-2(-)                 |
| 4.4-3 The proposed project could potentially damage human remains during construction activities.  | LTS with MM 4.4-3                  | NI ▼                      | LTS with MM 4.4-3(-)                 | LTS with MM 4.4-3(-)                 |
| 4.4-4 The proposed project could cause an adverse change in the significance of a tribal cultural resource.  | LTS with MM 4.4-3                  | NI ▼                      | LTS with MM 4.4-3(-)                 | LTS with MM 4.4-3(-)                 |
| <b>4.5 Energy</b>  |                                    |                           |                                      |                                      |
| Energy (general)   | LTS                                | NI ▼                      | LTS ▼                                | LTS ▼                                |
| <b>4.6 Geology and Soils</b>   |                                    |                           |                                      |                                      |
| 4.6-8 The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.  | LTS with MM 4.6-8                  | NI ▼                      | LTS with MM 4.6-8(-)                 | LTS with MM 4.6-8(-)                 |
| 4.6-9 The proposed project would not contribute to a cumulatively significant impact related to loss of paleontological resources.   | LTS with MM 4.6-8                  | NI ▼                      | LTS with MM 4.6-8(-)                 | LTS with MM 4.6-8(-)                 |
| <b>4.7 Greenhouse Gas Emissions</b>  |                                    |                           |                                      |                                      |
| 4.7-1 The proposed project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.                          | SU with MM 4.7-1 and 4.7-2         | NI ▼                      | SU with MM 4.7-1 and 4.7-2 ▼         | SU with MM 4.7-1 and 4.7-2(-)        |
| 4.7-2 The proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.                    | SU with MM 4.7-1 and 4.7-2         | NI ▼                      | SU with MM 4.7-1 and 4.7-2 ▼         | SU with MM 4.7-1 and 4.7-2(-)        |
| 4.7-3 The proposed project would result in cumulatively considerable impacts with regard to greenhouse gas emissions.  | SU with MM 4.7-1 and 4.7-2         | NI ▼                      | SU with MM 4.7-1 and 4.7-2 ▼         | SU with MM 4.7-1 and 4.7-2(-)        |
| <b>4.8 Hazards and Hazardous Materials</b>   |                                    |                           |                                      |                                      |
| 4.8-1 The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.              | LTS with MM 4.8-1                  | NI ▼                      | LTS with MM 4.8-1(-)                 | LTS with MM 4.8-1(-)                 |
| <b>4.9 Noise</b>   |                                    |                           |                                      |                                      |
| 4.9-1 The proposed project could result in generation of a temporary or permanent increase in ambient noise levels in the vicinity of the project substantially above levels       | LTS with MM 4.9-1, 4.9-2 and 4.9-3 | NI ▼                      | LTS with MM 4.9-1, 4.9-2 and 4.9-3 ▼ | LTS with MM 4.9-1, 4.9-2 and 4.9-3 ▼ |

**Table 6-3. Summary of Project and Alternatives Impacts and Mitigation Measures**

| Environmental Impact <sup>1</sup>  | Proposed Project   | Alternative 1: No Project | Alternative 2: Reduced Scope | Alternative 3: Reduced Parking |
|--|--------------------|---------------------------|------------------------------|--------------------------------|
| without the project or in excess of standards established in the City’s general plan or noise ordinance, or applicable standards of other agencies.                                    |                    |                           |                              |                                |
| <b>4.10 Public Utilities</b>   |                    |                           |                              |                                |
| Public Utilities (general)   | LTS                | NI▼                       | LTS▼                         | LTS(-) / ▼ <sup>2</sup>        |
| <b>4.11 Transportation and Circulation</b>   |                    |                           |                              |                                |
| 4.11-1 The proposed project could conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. | LTS with MM 4.11-1 | NI▼                       | LTS▼                         | LTS with MM 4.11-1(-)          |

**Notes:**

- ▲ Alternative is likely to result in greater impacts to issue when compared to proposed project.
- (-) Alternative is likely to result in similar impacts to issue when compared to proposed project.
- ▼ Alternative is likely to result in reduced impacts to issue when compared to proposed project.

NI = No impact

LTS = Less-than-significant impact

SU = Significant and unavoidable impact

MM = Mitigation Measure

- <sup>1</sup> The environmental topics that had significant impacts (significant and unavoidable, or requiring mitigation to reduce the impact to a less-than-significant level) include those specific impacts within the table, while the environmental topics with no significant impacts are summarized.
- <sup>2</sup> Under Alternative 3, only the solid waste impact from the Public Utilities section would be reduced in severity. All other utilities impacts would remain the same or similar to the proposed project.

## 6.5 Environmentally Superior Alternative

As indicated in Table 6-3, the No Project Alternative would result in the least environmental impacts and would be the environmentally superior alternative because it would avoid all impacts associated with the proposed project for all resource areas. However, section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Based on the analysis provided, the environmentally superior alternative would be the Reduced Development Alternative, or Alternative 2 because it would reduce the transportation impact from the proposed project to a less-than-significant impact with no mitigation required and would reduce impact severity (but would not change impact determinations) in the topics of air quality, aesthetics, energy, GHG emissions, noise, and public utilities. Alternative 2 would reduce impacts regarding aesthetics and GHG emissions; however, it is important to note that these impacts would still remain significant and unavoidable under this alternative the same as the proposed project. Comparably, the Reduced Parking Alternative (Alternative 3) would not remove mitigation required to address the transportation impact and would result in fewer reductions to GHG emissions and demand for water, wastewater and solid waste disposal compared to Alternative 2.

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# 7 EIR Preparers

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