CITY OF
CHULA VISTA

Eastlake Behavioral Health Hospital

Draft Environmental Impact Report

EIR No. 20-0001

SCH No. 2021030087

April 27, 2021

276 Fourth Ave. • Chula Vista • California • 91910

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FIGURES

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APPENDICES (bound separately)

ACRONYMS

$\mu g/m^3$	Micrograms per cubic meter of air
°F	Degrees Fahrenheit
AB	Assembly Bill
ADT	Average daily traffic
ALSO	Arterial Level of Service
ALUCP	Airport Land Use Commission Plan
APN	Assessor's parcel number
AQIP	Air Quality Improvement Plan
ATSC	Adaptive Traffic Signal Control
BC-4	Business Center 4
BDPDM	Best Management Practices Design Manual
BMP	Best management practice
BRT	Bus Rapid Transit
C&D	Construction and Demolition
C&DD	Construction and Demolition Debris Recycling
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
Cal-OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CH_4	Methane
City	City of Chula Vista
CNEL	Community noise equivalent level
CO	Carbon monoxide
CO_2	Carbon dioxide

CPUC	California Public Utilities Commission
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CVESD	Chula Vista Elementary School District
CVFD	Chula Vista Fire Department
CVLFMP	Chula Vista Public Library Facilities Master Plan
CVMC	Chula Vista Municipal Plan
CVPD	Chula Vista Police Department
CVPL	Chula Vista Public Library
CWA	Clean Water Act
dB(A)	A-weighted decibels
DEH	Department of Environmental Health
DOT	Department of Transportation
DPM	Diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
Energy Plan	Energy Strategy and Action Plan
EO	Executive Order
EP	Employment Park
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Environmental Site Assessment
ESP	Energy Services Provider
FDD	Facilities Development Division
FEMA	Federal Emergency Management Act
FFMP	Fire Facility, Equipment, and Deployment Master Plan
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
GBS	Green Building Standards
GDP	General Development Plan
GHG	Greenhouse gas
GM	Growth Management
GME	Growth Management Element
GMO	Growth Management Ordinance
GMOC	Growth Management Oversight Committee
GMP	Growth Management Program
gpd	Gallons per day
H&SC	Health and Safety Code
HAS	Hydrologic Subarea
HFC	Hydrofluorocarbon
HMBP	Hazardous Materials Business Plan
HMD	Hazardous Materials Division
HRA	Health Risk Assessment
HU	Hydrologic Unit

Hz	Hertz
in/sec	Inch per second
IPCC	Intergovernmental Panel on Climate Change
IR	Research and Limited Manufacturing
IWMA	California Integrated Waste Management Act
JRMP	Jurisdictional Runoff Management Program
kW	Kilowatt
kWh	Kilowatt hour
LEED	Leadership in Energy and Environmental Design
L_{eq}	One-hour equivalent noise level
LID	Low Impact Development
LLG	Linscott, Law & Greenspan, Engineers
LMA	Local Mobility Assessment
L_{max}	Maximum sound level
LOS	Level of Service
LRA	Local responsibility area
LUST	Leaking underground storage tanks
LUT	Land Use and Transportation
MCE_R	Maximum Considered Earthquake
METRO	Metropolitan Wastewater System
mgd	Million gallons per day
MJHMP	Multi-Jurisdictional Hazards Mitigation Plan
M_{max}	Maximum moment magnitudes
MMRP	Mitigation Monitoring and Reporting Program
MMT CO_2E	Million metric tons of carbon dioxide equivalent
mph	Miles per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zones
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
MT CO_2E	Metric tons of carbon dioxide equivalent
MWD	Metropolitan Water District of Southern California
N_2O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Communities Conservation Plan
NFIP	National Flood Insurance Program
NO_2	Nitrogen dioxide
NOP	Notice of Preparation
NOx	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
OES	Office of Emergency Services
OPR	Office of Planning and Research
OSHPD	Office of Statewide Health Planning and Development

OWD	Otay Water District
Pb	Lead
PC	Planned Community
PCB	Polychlorinated biphenyls
PFC	Perfluorocarbon
PFDIF	Public Facilities Development Impact Fee
PFS	Public Facilities and Services
PLDO	Park Lands Dedication Ordinance
PM_{10}	10-micron particulate matter
$PM_{2.5}$	2.5-micron particulate matter
ppm	Parts per million
PPV	Peak particle velocity
project	Eastlake Behavioral Health Hospital
PV	photovoltaic
RAQS	Regional Air Quality Strategy
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
REC	Recognized environmental conditions
RES	Regional Energy Strategy
RMP	Resource Management Plan
ROC	Reactive organic compound
ROG	Reactive Organic Gases
RPS	Renewables Portfolio Standard
RTP/SCS	Regional Transportation Plan and Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Boards
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas & Electric
SF_6	Sulfur hexafluoride
SFHA	Special Flood Hazard Areas
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SPA	Sectional Planning Area
SR	State Route
SUHSD	Sweetwater Union High School District
SWQMP	Stormwater Quality Management Plan
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminant

TCM	Transportation Control Measures
TCM	Transportation Control Measure
TDM	Transportation Demand Management
TIA	Transportation Impact Analysis
TMDL	Total maximum daily load
TMP	Traffic Monitoring Program
TSG	Transportation Study Guidelines
UDC	Unified Disaster Council
ULSO	Urban Street Level of Service
USC	United States Code
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground storage tanks
UWMP	Urban Water Management Plan
VHFHSZ	Very High Fire Hazard Severity Zones
VMT	Vehicle Miles Traveled
WDR	Report of Waste Discharge
WQIP	Water Quality Improvement Plan
WRMP	Water Resource Master Plan

1.0 EXECUTIVE SUMMARY

1.1 Project Synopsis

This Environmental Impact Report (EIR) for the proposed Eastlake Behavioral Health Hospital project (project) is for informational use by the City of Chula Vista (City), other public agencies, and members of the public. This summary provides a brief synopsis of: (1) the project, (2) results of the environmental analysis contained within this environmental document, (3) alternatives to the project that were considered, and (4) major areas of controversy and issues to be resolved by decision-makers. This summary does not contain the extensive background and analysis found throughout the individual sections within the document. Therefore, the reader should review the entire document to fully understand the project and its environmental consequences.

This document constitutes an EIR pursuant to Section 15161 of the California Environmental Quality Act (CEQA) Guidelines. In accordance with CEQA, this Project EIR examines the environmental impacts of a specific development project, and focuses on the physical changes in the environment that would result from the project.

1.2 Project Location and Setting

The project is located within the City, in southwestern San Diego County. The project site is a 10.42-acre parcel located at 830 and 831 Showroom Place, north of Fenton Street, west of Hunte Parkway, and east of Lane Avenue. The project site is subject to a zoning designation of Business Center 4 (BC-4).

The project site sits within the Eastlake Business Park, which is nearly fully developed with commercial uses and parking. Existing business park uses surround the project site to the west and south consisting primarily of commercial retail uses including restaurants, a gymnasium and fitness center, trampoline park, and home furnishings warehouse store. Medical and dental facilities are located off Showroom Place, opposite the project site across Fenton Street. Residential properties are located downslope to the north and east.

1.3 Project Description

The project would include construction of single-story behavioral health hospital. The acute psychiatric hospital would accommodate 120 beds within an approximately 97,050-square-foot single-story structure. Specific medical and ancillary services would include in- and out-patient behavioral health services for geriatric, adult, and adolescent patients, nutrition support, and physical therapy, as well as a gymnasium, cafeteria for inpatients, visitors and staff, and an inpatient pharmacy. The facility would employ approximately 150 employees working in three shifts. The site design also includes exterior activity areas, a patio with shade canopy, walking paths, and a recreation lawn. Details of the project are outlined in Chapter 3.

1.3.1 Project Objectives

Section 15124(b) of the CEQA Guidelines requires an EIR to include a statement of objectives for the project that outlines the purpose of the project. The project objectives are listed in Section 3.3 and are used to develop and compare the alternatives (Chapter 7.0).

1.3.2 Discretionary Actions

A discretionary action is an action taken by an agency that calls for the decision on whether to approve or how to carry out a project. The Chula Vista City Council will consider the following discretionary actions required to implement the project:

- Approval of a Conditional Use Permit (CUP-19-0010) to allow a hospital use to be constructed within the BC-4 zone.
- Approval of a Design Review (DR19-0012) to construct the building and associated parking within the existing Business Center (BC-4).
- Certification of a Final EIR, adoption of a Mitigation Monitoring and Reporting Program, if necessary, pursuant to CEQA (PER 19-0006).

1.4 Areas of Controversy

The Notice of Preparation (NOP) was issued on August 31, 2020 for a 30-day public review and comment period. Pursuant to the Governor of the State of California's Executive Order N-29-20, a virtual public scoping meeting was made available through a prerecorded presentation for the entirety of the scoping period (August 31, 2020 to September 29, 2020). Comments were submitted via the City's online e-comment portal. The public was directed to focus comments on the environmental issues discussed in the NOP. A total of 272 comments were received. The NOP and comments received are included in this EIR as Appendix A. After a detailed review of the comments, CEQA related concerns associated with the project include issues associated with availability of public services (police and fire), land use (consistency with existing plans), aesthetics (community character, light and glare), public utilities (infrastructure improvements), increased traffic, increased noise (construction and operation), cultural (tribal) resources, and hazards. These issues are analyzed in this EIR.

1.5 Issues to be Resolved by the City Council

The issues to be resolved by the decision-making body are whether to adopt the project. The City will also determine whether any alternative might meet the key objectives of the project while reducing any environmental impact.

1.6 Project Alternatives

Section 15126.6 of the CEQA Guidelines requires the discussion of "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 the evaluation of the comparative merits of the alternatives. The alternatives discussion is intended to "focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project," even if these alternatives would impede to some degree the attainment of the project objectives.

CEQA Guidelines mandate that the EIR analyze a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives but would avoid or substantially lessen any of the significant effects. These alternatives allow informed decision making and public participation. The alternatives fully evaluated in Chapter 7 include the No Project/Medical Office Building Alternative and the Reduced Intensity Alternative.

1.6.1 No Project/Medical Office Building Alternative

The No Project/Medical Office Building Alternative illustrates what could be built on the project site under existing plans and policies consistent with CEQA Guidelines Section 15126.6(e)(3)(C). Specifically, the No Project/Medical Office Building Alternative assumes the construction of a medical office building which could be developed on the project site by-right under the existing zoning regulations.

Compared to the proposed project implementation of the No Project/Medical Office Building Alternative would result in incrementally greater potentially significant impacts related to landform/aesthetics, air quality, energy, greenhouse gas emissions, and noise. The No Project (Existing Zoning) Alternative would not meet most of the program objectives. This alternative would not meet any of the project objectives (see Table 7-1).

1.6.2 Reduced Intensity Alternative

The Reduced Intensity Alternative presents a reduced size behavioral health hospital that would accommodate 50 percent less patient beds, for a total of 60 beds. Compared to the proposed project, implementation of the Reduced Intensity Alternative would result in the same potentially significant impacts, except for air quality, energy, greenhouse gas emissions, and utilities and services, which would be incrementally less (see Table 7-1).

The Reduced Intensity Alternative would not achieve the objectives of the project as it would not serve the regional needs of the community of providing the needed inpatient beds.

1.7 Summary Table

Table 1-1 identifies the subject areas analyzed in the EIR and conclusions related to the significance of those impacts.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Land Use			
Would the project physically divide an established community?	The proposed land use, design, and layout for the project would be compatible with existing land use plans and patterns. There are residential neighborhoods in the project vicinity; however, the project would be located within an existing site designated for commercial use; the project would not physically divide an established community. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	The project does not propose any change in land use that would be inconsistent with existing plans, policies, or regulations governing the project site. Table 5.1-1 summarizes the project's consistency with relevant General Plan objectives and policies. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Landform Alteration/Aesthetics			
Would the project have a substantial adverse effect on a scenic vista or substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	The project site does not support any trees, rock outcroppings, or historic buildings and is not located within any designated scenic roadways or vistas; however, it does offer views of surrounding mountains and ridge lines. The project would comply with all relevant provisions of the City's General Plan and relevant planning documents, including the Eastlake II General Development Plan (GDP)/Business Center II Supplemental Sectional Planning Area (SPA) Plan to ensure that proposed site design, architectural design, height, landscaping, signage, and utilities are consistent with the scenic quality of the surrounding area, including the continued ability to view the distant mountains and ridgelines. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
In non-urbanized areas, would the project substantially degrade the existing visual character or quality of the site and its surroundings (public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	The project would comply with all relevant General Plan objectives which establish policies focused on the requirement for design review to ensure new development is compatible with the surrounding visual character and quality. Specifically, the project would comply with all landscape and architectural design requirements to ensure the project's consistency with the existing community character and visual quality of the area. Impacts would be less than significant.	No mitigation is required.	Not Applicable.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project create a new source of light or glare which would adversely affect day or nighttime views in the area?	Construction lighting would be limited to regulatory standards and would be short term. The project is designed to ensure all lighting is directed downward and shielded. Additionally, the project has been designed primarily of solid surfaces, with glass enhancements of muted grays, blues, and greens to provide low glare and would be absorptive of light or made of anti-reflective material. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Air Quality			
Would the project conflict with or obstruct the implementation of the applicable air quality plan?	The project would be consistent with the General Plan land use designation and would not result in growth in population beyond that anticipated by the General Plan and San Diego Association of Governments. Therefore, the project would not result in an increase in emissions that are not already accounted for in the Regional Air Quality Standards. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation	The project would not result in regional emissions that would exceed the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) or contribute to existing violations during construction operation. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state AAQS (including the release of emissions which exceed quantitative thresholds for ozone precursors)?	Emissions of ozone precursors from construction and operation would be below the applicable thresholds. Therefore, the project would not generate emissions in quantities that would result in an exceedance of the NAAQS or CAAQS for ozone, 10-micron particulate matter, or 2.5-micron particulate matter. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project expose sensitive receptors to substantial pollutant concentration (including air toxics)?	There would be no harmful concentrations of carbon monoxide and localized air quality emission would not exceed applicable standards with implementation of the project. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project create objectionable odors affecting a substantial number of people	The project does not include heavy industrial or agricultural uses that are typically associated with odor complaints. The project would not create or expose sensitive receivers to odors. Impacts would be less than significant.	No mitigation is required.	Not Applicable.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Energy			
Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	The project would not result in the use of excessive amounts of fuel or other forms of energy during construction or operation and the project would not create a land use pattern that would result in wasteful, inefficient, or unnecessary use of energy. Impacts would be less than significant	No mitigation is required.	Not Applicable.
Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Geology and Soils			
Would the project directly or indirectly cause 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. Refer to Division of Mines and Geology Special Publication 42; • Strong seismic ground shaking; • Seismic-related ground failure, including liquefaction; or • Landslides?	The project would comply with all applicable federal, state, and local regulations and building standards related to seismic safety, including the California Building Code (CBC), specifically those seismic design considerations included in the Geotechnical Evaluation prepared for the project. Additionally, the project would be consistent with all relevant General Plan policies to ensure the risk of injury, loss of life, and property damage associated with geologic hazards would not occur. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project result in substantial soil erosion or the loss of topsoil?	The project would implement the recommendations of the Geotechnical Evaluation to ensure the preservation and protection of soils from erosion and uncontrolled runoff. Additionally, the project would include best management practices (BMPs) during and post-construction to reduce the potential for soil erosion due to excess runoff volume and velocity. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Compliance with current seismic design specifications, CBC standards, and other regulatory requirements would ensure that the project would reduce the potential for soil instability and associated geologic hazards. Impacts would be less than significant.	No mitigation is required.	Not Applicable.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project 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?	The project would implement the recommendations of the Geotechnical Evaluation, and adhere to all regulations related to seismic safety to ensure the project is designed to withstand potential impacts associated with expansive soils. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	The project would not require the use of septic systems. No impact would occur.	No mitigation is required.	Not Applicable.
Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	The project site has been previously graded and any remaining underlying geological formations are only marginally sensitive for paleontological resources. It is, therefore, unlikely the project would impact such resources. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Greenhouse Gas Emissions			
Would the project generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	The project would generate 2,986 metric tons of carbon dioxide equivalent (MT CO_2E) annually, which is less than the 3,000 MT CO_2E residential/commercial screening threshold. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs?	The project would be consistent with all relevant statewide and local plans, including the City's Climate Action Plan. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Hazards			
Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Project construction and post construction activities would comply with applicable federal, state, and local regulations governing the transportation, use, handling, storage, management, and disposal of hazardous materials and waste, biohazards, medical waste, and radioactive materials to ensure protection of public safety, health, and welfare and the environment. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	The project would prepare a Hazardous Materials Business Plan and Risk Management Program as required by state and local regulations that identify the risks of a hazardous event and provide a plan to ensure any accidental hazardous release would be managed and contained without significant harm to the public or environment. Impacts would be less than significant.	No mitigation is required.	Not Applicable.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	The project would adhere to regulatory requirements regarding all forms of handling, storage, and disposal of hazardous chemicals including biohazardous and radioactive waste. Therefore, the project would not expose schools to hazardous materials and substances. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No hazardous materials sites are located on or within the vicinity of the project site. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	The project site is not located within an airport land use plan, nor within two miles of a public airport or public use airport. No impacts would occur.	No mitigation is required.	Not Applicable.
Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	The project would have adequate emergency access and would not significantly impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	The project site is not identified within an area considered a “very high hazard” or “high hazard.” The project site is surrounded by developed lands and would not expose people or structures to a significant risk of loss, injury, or death from wildland fires. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Hydrology and Water Quality			
Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Implementation of site design, source control, and structural pollutant control measures would preclude any violations of applicable standards and discharge regulations, ensuring that the project would be consistent with the City’s Threshold Standards. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project substantially decrease ground water supplies or interfere substantially with ground water supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	The project would not use ground water sources and would instead connect to the Otay Water District existing public water system. No Impact would occur.	No mitigation is required.	Not Applicable.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would: • result in substantial erosion or siltation on- or off-site? • substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site? • create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? • impede or redirect flood flows?	The project would adhere to all County and local regulations including the inclusion of on-site BMPs in the form of two hydromodification/detention basins to ensure that impacts related to altering drainage patterns, erosion/siltation, excess runoff, and redirection of flood flows would be less than significant.	No mitigation is required.	Not Applicable.
In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?	The project site is not located in an area identified as having a potential for flooding. Additionally, the project site is located approximately 14 miles east of the Pacific Ocean. No impact related to flood hazard tsunami, or seiche would occur.	No mitigation is required.	Not Applicable.
Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan	The project would comply with all relevant regulations. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Noise			
Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	The project would not result in increased noise levels above ambient conditions. Construction activities associated with the project would comply with the applicable regulation for construction and would be temporary in nature. Exterior noise levels at the building façade are projected to be less than the City's interior noise level standard of 50 community noise equivalent level (CNEL) and direct off-site noise level increases due to the project would be 1 decibel (dB) or less. Additionally, noise anticipated from the project's on-site generator would not exceed commercial noise limits. Overall, impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project generate excessive ground borne vibration or ground borne noise levels?	Construction activities associated with the project would comply with the applicable regulations for construction, including ground borne vibration Impacts would be less than significant.	No mitigation is required.	Not Applicable.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
For a project located within the vicinity of a private airstrip or airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the area to excessive noise levels?	The project is not subject to an airport land use plan, nor within two miles of a public airport or public use airport. No impact related to airport noise would occur.	No mitigation is required.	Not Applicable.
Public Services and Recreation			
Would the project result in substantial adverse physical or other environmental impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: i. Fire protection; ii. Police protection; iii. Schools; iv. Parks; and v. Other public facilities?	The project would not require any new or physically altered facilities. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	The project would not result in any new residential uses that would place a burden or cause deterioration of existing parks or recreational facilities. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	The project would not result in any new residential uses that would require construction or expansion of recreational facilities. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Transportation			
Would the project conflict with a program plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities?	The project would be consistent with all relevant program plans, ordinances, and policies addressing the circulation system. Impacts would be less than significant.	No mitigation is required.	Not Applicable.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) (Vehicle Miles Traveled)?	Based on City screening of vehicle miles traveled (VMT), the project would be screened out of the requirement for a detailed VMT analysis, and the project is considered as resulting in a less than significant VMT impact without conducting a detailed study.	No mitigation is required.	Not Applicable.
Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	The project does not include any features that would substantially increase hazards. Changes to the existing circulation system would be limited to the project commitment of fund for the installation of a traffic signal at the intersection of Harold Place/Fenton Street. This improvement would not increase hazards due to a geometric design feature or incompatible uses. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project result in inadequate emergency access?	The project would not generate congestion that could delay emergency evacuation. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Utilities and Service Systems			
Would the project require or result in the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?	The project would not require the relocation or construction of new or expanded facilities for water, wastewater treatment, storm drainage, electric power, natural gas, or telecommunications. Impacts would be less than significant	No mitigation is required.	Not Applicable.
Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Sufficient water supplies are planned for and would be available to serve the project based on land use consistency with water use assumptions used in the Otay Water District Urban Water Management Plan. As the project would not require new or expanded water supplied, impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve project's projected demand in addition to the provider's existing commitments?	The wastewater outflow for the project is estimated meet City Engineering standards for sewer. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	The Otay Landfill has sufficient capacity to accommodate the projected increase in waste disposal needs. Impacts would be less than significant.	No mitigation is required.	Not Applicable.

TABLE 1-1 SUMMARY OF SIGNIFICANT ENVIRONMENTAL EFFECTS			
Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Would the project comply with federal, state, and local management and reduction statutes and regulation related to solid waste?	The project would adhere to all relevant federal, state, and local management and reduction statutes and regulation related to solid waste. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Wildfire			
Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	The project would not require change to the local circulation or infrastructure that would impair implementation of, or physically interfere with, emergency response plans or emergency evacuation plans. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	The project would be required to comply with the City's Fire Code and Urban Wildland-Urban Interface Code for all construction and design details relating to building materials, interior safety devices, and brush management to ensure that wildfire risks are not exacerbated. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	The project would only require the construction of a single traffic signal at the intersection of Harold Place/Fenton Street. All utility improvements would occur on-site and connect to existing lines. Therefore, the project would not exacerbate fire risk related to infrastructure improvements. Impacts would be less than significant.	No mitigation is required.	Not Applicable.
Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	The project would not change drainage patterns nor leave soils exposed in a manner that would result in post-fire flooding or slope instability. Impacts would be less than significant.	No mitigation is required.	Not Applicable.

2.0 INTRODUCTION

This introduction provides the background and rationale for the purpose, content, and review procedures for this Environmental Impact Report (EIR) for the Eastlake Behavioral Health Hospital Project (project) in accordance with the California Environmental Quality Act (CEQA).

2.1 Purpose of this Environmental Impact Report

In accordance with CEQA, the City of Chula Vista (City) is the lead agency for the preparation of this environmental document. This EIR is intended to inform decision-makers, public agencies, and the public about the potential significant adverse environmental impacts of the project and provide decision-makers with an understanding of the associated physical and environmental changes prior to taking action on the project. The EIR includes recommended mitigation measures which, when implemented, would lessen project impacts and provide the City with ways to substantially lessen or avoid significant effects of the project on the environment, whenever feasible. Alternatives to the project that can further reduce or avoid significant impacts are also addressed.

The major purposes of this EIR are:

- To identify current and projected environmental conditions that may affect or be affected by the project;
- To disclose potential environmental impacts of the project to the public and to the decision-makers;
- To inform the public and to foster public participation in the City's planning process;
- To identify mitigation measures which could eliminate or reduce potentially significant environmental impacts; and
- To evaluate alternatives that might be environmentally superior to the project.

The environmental impact analysis outlines the environmental setting of the project, identifies potential environmental impacts, determines the significance of the potential impacts, and identifies mitigation measures to avoid or reduce potentially significant adverse environmental impacts. This EIR also addresses cumulative impacts, growth-inducing impacts, effects found not to be significant, irreversible environmental effects, and alternatives to the project.

2.2 Preparation of an Environmental Impact Report

This EIR has been prepared as a Project EIR, as defined in Section 15161 of the CEQA Guidelines. In accordance with CEQA, and the City of Chula Vista environmental review procedures this Project EIR examines the environmental impacts of a specific development project, and focuses on the physical changes in the environment that would result from the project.

A Notice of Preparation (NOP) was issued on August 31, 2020 for a 30-day public review and comment period. The purpose of the NOP is to solicit comments from the public on potential environmental issues to be examined in the EIR. Pursuant to the Governor of the State of California's executive order N-29-20, a virtual public scoping meeting was made available through a prerecorded presentation for the entirety of the scoping period. Comments were submitted via the City's online e-comment portal. The public were directed to focus comments on the environmental issues discussed in the NOP. A total of 272 comments were received. The NOP and comments received are included in this EIR as Appendix A.

2.2.1 EIR Content

The intent of this EIR is to determine whether implementation of the project would have a significant effect on the environment through analysis of the issues identified during the scoping process. Impacts are identified as direct or indirect, short term or long term, and analyzed.

Through these scoping activities, the project was determined to have the potential to result in the following significant environmental impacts:

- Land Use
- Landform Alteration/Aesthetics
- Air Quality
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards
- Hydrology and Water Quality
- Noise
- Public Services and Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

The following subject areas have been determined to not be considered significant and are discussed in Section 9.0, Issues Found Not to be Significant, of this EIR.

- Agricultural and Forestry Resources
- Biological Resources
- Cultural Resources/Tribal Cultural Resources
- Mineral Resources
- Population and Housing

2.2.2 EIR Format

A brief overview of the various sections of this EIR is provided below.

- **Chapter 1.0, Executive Summary.** Provides a summary of the EIR, a brief description of the project, identification of areas of controversy, and inclusion of a summary table identifying significant impacts, proposed mitigation measures, and impact rating after mitigation. A summary of the analyzed project alternatives and a comparison of the potential impacts of the alternatives with those of the project are also provided.

- **Chapter 2.0, Introduction.** Contains an overview of the purpose and intended uses of the EIR; lead, responsible, and trustee agencies; and the CEQA environmental review process. It also provides a discussion of the scope and format of the EIR.

- **Chapter 3.0, Project Description.** Provides a detailed discussion of the project, including background, objectives, key features, and environmental design considerations. The discretionary actions required to implement the project and a chronicle of project changes are also included.

- **Chapter 4.0, Environmental Setting.** Provides a description of the project's regional context, location, and existing physical characteristics and land use. A summary of available public infrastructure and services, as well as their relationship to relevant plans, is also provided in this chapter.

- **Chapter 5.0, Environmental Impact Analysis.** Provides an analysis of the potentially significant environmental impacts identified, and proposed mitigation measures to reduce or avoid any potentially significant impacts.

- **Chapter 6.0, Cumulative Impacts.** Identifies the impact of the project in combination with other planned and future development in the region.

- **Chapter 7.0, Project Alternatives.** Provides a description of alternatives to the project, including a No Project (No Development) Alternative and others which constitute a reasonable range of alternatives pursuant to CEQA Guidelines Section 15126.6.

- **Chapter 8.0, Issues Found Not to be Significant.** Identifies all of the issues determined in the scoping and preliminary environmental review process to be not significant and briefly summarizes the basis for these determinations.

- **Chapter 9.0, Significant Unavoidable Environmental Effects/Significant Irreversible Environmental Changes.** Discusses the significant unavoidable impacts of the project, including those that can be mitigated but not reduced to below a level of significance. This section also describes the potentially significant irreversible changes that may be expected with development of the project and addresses the use of nonrenewable resources during its construction and operational life.

- **Chapter 10.0, Growth Inducement.** Evaluates the potential influence the project may have on economic or population growth within the project area as well as the region, either directly or indirectly.

- **Chapter 11.0, References Cited.** Lists all of the reference materials cited in the EIR.

- **Chapter 12.0, EIR Preparation.** Identifies the individuals responsible for the preparation of the EIR.

2.2.3 Technical Appendices

Technical appendices, used as a basis for much of the environmental analysis in the EIR, have been summarized in the EIR and are printed under separate cover as part of the EIR. The technical appendices are available for review at the City of Chula Vista, Development Services Department, located at 276 Fourth Avenue, Chula Vista, California 91910.

2.2.4 EIR Process

The EIR review process occurs in two basic stages. The first stage is the Draft EIR, which offers the public the opportunity to comment on the document, while the second stage is the Final EIR, which incorporates comments received during the public review period.

2.2.5 Draft EIR

In accordance with Sections 15085 and 15087(a)(1) of the CEQA Guidelines, upon completion of the Draft EIR, a Notice of Completion is filed with the State Office of Planning and Research, and Notice of Availability of the Draft EIR issued in a newspaper of general circulation in the area.

The Draft EIR is distributed for review to the public and interested and affected agencies for the purpose of providing comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided and mitigated" (Section 15204, CEQA Guidelines).

This Draft EIR and all related technical studies are available for review during the public review period at the offices of the City, Development Services Department, located at 276 Fourth Avenue, Building B, Chula Vista, California 91910. Copies of the Draft EIR are also available at the Chula Vista Public Library, 365 F Street, Chula Vista, California 91910.

This EIR is also available for review online at:

http://www.chulavistaca.gov/departments/development-services/planning/public-notices/environmental-notices

2.2.6 Final EIR

Following public review of the Draft EIR, the City will provide written responses to comments per CEQA Guidelines Section 15088 and will consider all comments in making its decision to certify the Final EIR. Responses to the comments received during public review, an MMRP, Findings of Fact, and a Statement of Overriding Considerations for any impacts identified in the Draft EIR as significant and unmitigable will be prepared and compiled as part of the Final EIR.

The culmination of this process is a public hearing where the City Council will determine whether to certify the Final EIR as being complete and in accordance with CEQA. The Final EIR will be available for public review at least 14 days before the public hearing to provide commenters the opportunity to review the written responses to their comment letters.

2.3 Agency Review Procedure

This document provides environmental information to the public, agencies affected by the project, or entities which are likely to have an interest in the project, including, but not limited to, the following:

- California Air Resources Board
- California Department of Toxic Substances Control
- California Department of Transportation
- California Office of Emergency Services
- California Office of Statewide Health Planning and Development
- Otay Water District
- San Diego Regional Water Quality Control Board

3.0 PROJECT DESCRIPTION

3.1 Project Location and Setting

The Eastlake Behavioral Health Hospital (project) would be located at 830 and 831 Showroom Place within the City of Chula Vista (City), in southwestern San Diego County. The project site's regional and U.S. Geological Survey (USGS) locations are shown in Figures 3-1, and 3-2, respectively. The topography of the site, shown in Figure 3-3, consists of a relatively flat, vacant lot that has been previously graded. The project site is comprised of two lots (assessor's parcel numbers [APNs] 595-710-11 and 595-710-12) totaling 10.42 acres. Specifically, as shown in Figure 3-3, the project site sits north of Fenton Street, west of Hunte Parkway, and east of Lane Avenue. The project site is within the approved Business Center II Supplemental Sectional Planning Area (SPA), which is part of the larger Eastlake II General Development Plan (GDP). The Eastlake Business Park, which contains existing commercial development and parking lots, is subject to a zoning designation of Business Center 4 (BC-4). The environmental setting is discussed in more detail in Chapter 4.0 of this Environmental Impact Report (EIR). As shown in Figure 3-4, residential properties to the north and east are downslope approximately 60 feet at the base of an existing manufactured slope. There is no legal access between the project site and adjacent neighborhood.

3.2 Project Background

The site was graded in 2002, consistent with approved grading plans associated with the approved Eastlake Business Center II-Phase 2 grading plans but has remained vacant since that time. The lots surrounding the project site have been developed with a variety of commercial uses, including medical facilities, insurance companies, notary services, realty offices, and physical wellness/dance/learning center facilities.

Project Location

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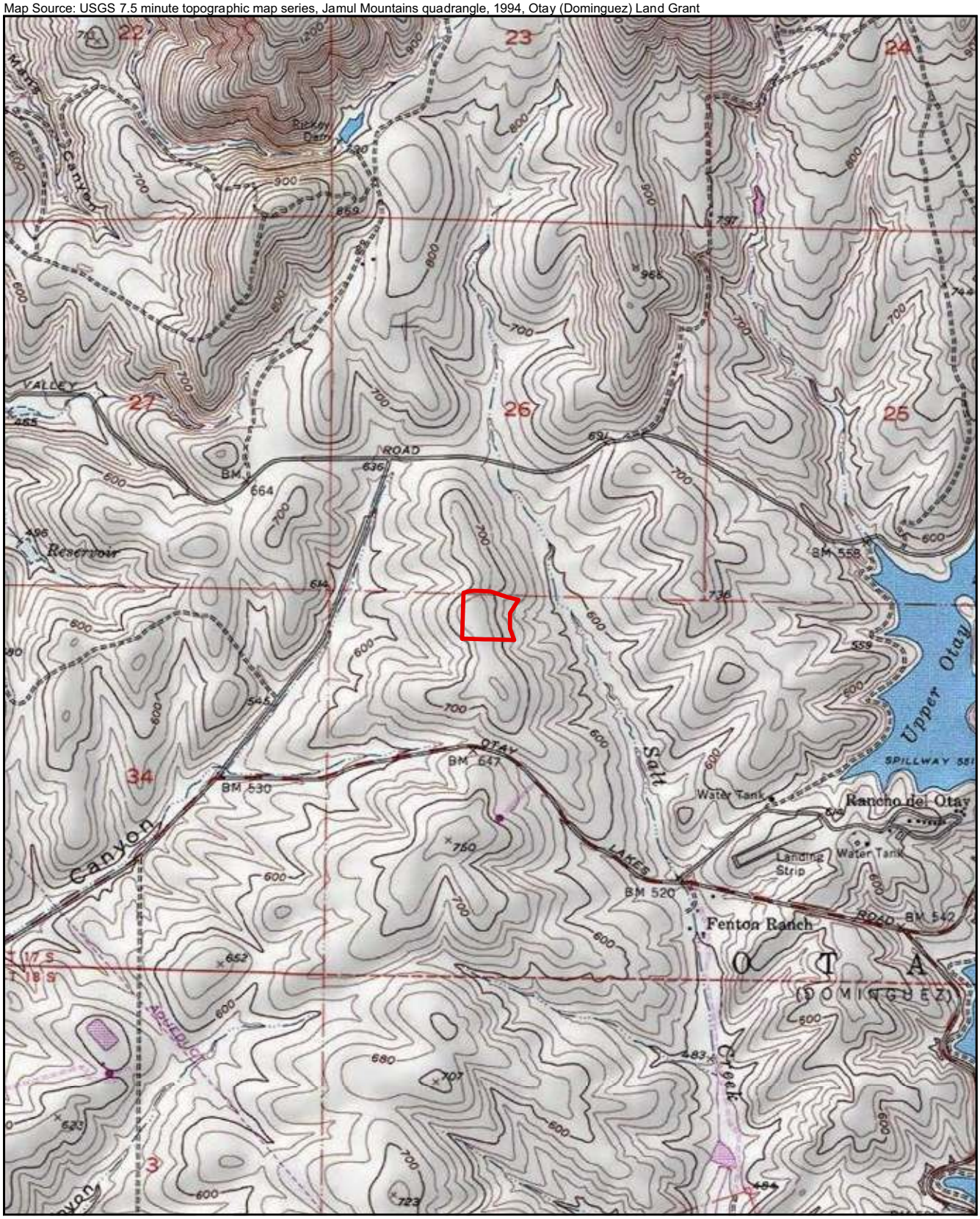
FIGURE 3-1

Regional Location

Map Source: USGS 7.5 minute topographic map series, Jamul Mountains quadrangle, 1994, Otay (Dominguez) Land Grant



0 Feet 2,000

Project Boundary

FIGURE 3-2

Project Location on USGS Map

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Image Source: Nearmap (Flown September 2019)

0 Feet 200

Project Boundary

Topo

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FIGURE 3-3

Project Topography

Image Source: Nearmap (Flown September 2019)

0 Feet 400

Project Boundary

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FIGURE 3-4

Project Location on Aerial Photograph

3.3 Project Objectives

Section 15124(b) of the California Environmental Quality Act (CEQA) Guidelines requires an environmental impact report (EIR) to include a statement of objectives for the proposed project that outlines the purpose of the project and allow the development of project alternatives. The project objectives provide the decision makers with a way to evaluate the proposed project against the alternatives and in preparing findings and overriding considerations, if necessary. To that end, the objectives support the primary purpose of constructing the behavioral health hospital. To achieve the project purpose, the following objectives are envisioned:

- Provide quality, safe, cost-effective, socially responsible health care services that focus on behavioral health.
- Construct a behavioral healthcare facility compliant with the state's Office of Statewide Health Planning and Development (OSHPD) seismic safety regulations, right sized for the growth of patient volumes.
- Provide ancillary services including dietary services, on-site pharmacy, and outdoor activities.
- Facilitate a responsible partnership between Scripps and Acadia healthcare to provide expert, specialized care in behavioral health.
- Locate a facility at a site that best serves the needs of the community including:
    - Location in an area underserved by inpatient beds (based on recommendations from the California Hospital Association that there be 50 inpatient behavioral health beds for every 100,000 population[1]);
    - Proximity to major road network;
    - Appropriate size (10+ undeveloped acres) to construct a one-story facility; and
    - Zoning that allows for a hospital use.

3.4 Discretionary Actions

The Chula Vista Planning Commission will need to approve the project. Specifically, they will consider the following discretionary actions required to implement the project:

- Conditional Use Permit (CUP)
- Design Review Permit

[1] The City of Chula Vista should have 134 inpatient beds, but only 64 beds are available.

City Council would only review the project if the Planning Commission decision is appealed.

3.4.1 Conditional Use Permit

Implementation of the project would require approval of a CUP (CUP19-0010) to allow a hospital use to be constructed within the BC-4 zone.

3.4.2 Design Review Permit

The project would require approval of a Design Review Permit (DR19-0012) to construct the building and associated parking within the existing Business Center (BC-4).

3.4.3 Certification of Final EIR

In order to comply with requirements of CEQA, approval of the discretionary actions listed above would need to be accompanied by Certification of a Final EIR, as well as adoption of the Mitigation Monitoring and Reporting Program (MMRP) and approval of the CEQA Findings and Statement of Overriding Considerations, if necessary under CEQA. In this environmental analysis, no significant impacts have been identified. Therefore, the project would not require adoption of an MMRP.

3.5 Project Overview

The project includes the construction of a new behavioral health hospital on a 10.42-acre lot within the existing Eastlake Business Center.

The project would be constructed within a vacant lot, located in the northeast section of the business center, bounded by existing commercial office space to the south and west, and single-family residential homes to the north and east. The proposed one-story building would total approximately 97,050 square feet, and would include 186 parking spaces, landscaping, and on-site recreational areas, all detailed below. The site plan is shown in Figure 3-5.

The building would include 120 beds located within six distinct nursing units:

- Unit 1A: a 20-bed geriatric psychiatric unit
- Unit 1B: a 20-bed adolescent psychiatric unit
- Unit 2A: a 20-bed adult general psychiatric unit
- Unit 2B: a 20-bed adult dual-diagnosis psychiatric unit
- Unit 3A: a 20-bed psychiatric unit (patient mix to be determined)
- Unit 3B: a 20-bed psychiatric unit (patient mix to be determined)

Map Source: SWA Architects

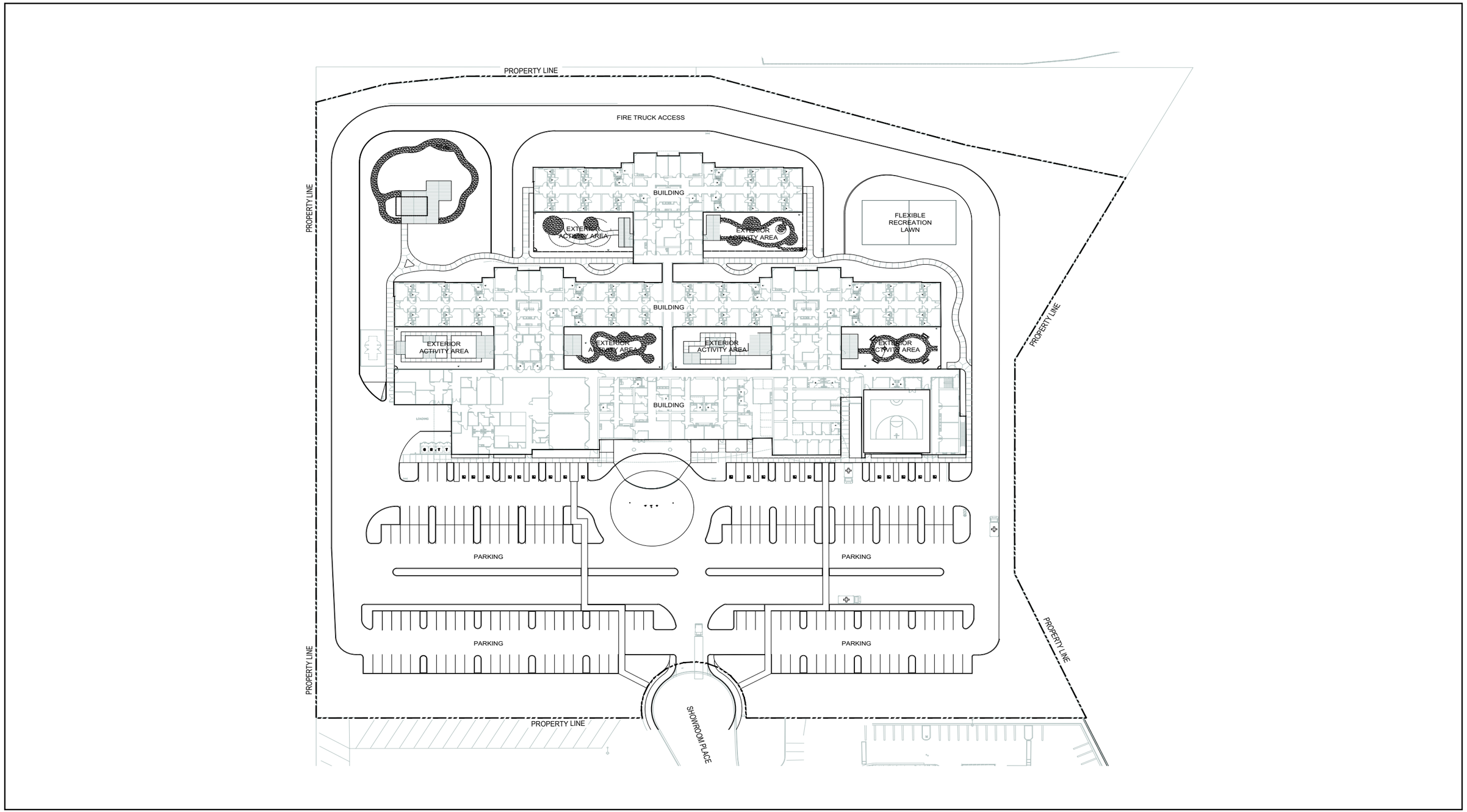

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FIGURE 3-5
Site Plan

The project would also include separate adolescent and adult outpatient therapy programs, gymnasium, and a recreational arts and craft program. Specific medical and ancillary services would include in- and outpatient behavioral health services for geriatric, adult, and adolescent patients, nutrition support, and physical therapy, as well as a gymnasium, cafeteria for inpatients, visitors, and staff, and an inpatient pharmacy.

3.5.1 Outdoor Areas/Landscape and Lighting Plans

The project would include approximately 25,000 square feet of outdoor activity areas within the project site, including six exterior patient activity areas and two outdoor staff areas. The project includes approximately 164,206 square feet of landscaping including around the proposed building/perimeter of the project site and parking areas. The landscaping plans and planting legend are shown on Figures 3-6a and 3-6b, respectively. As shown, the project includes walls and fencing around the perimeter of the project site. Specifically, the project proposes two different types of fencing, including a 12-foot solid fence around the outdoor activity areas, and a 8-foot perimeter fence on the east, north, and south borders of the property. The security fencing would be a decorative wall, constructed of solid concrete. The perimeter fence would be constructed of split-face concrete block. The proposed wall and fence plans are shown in Figure 3-7.

Outdoor lighting within the project site would be constructed to illuminate all external pedestrian walkways, and outdoor activity areas, as well as the parking lot. Lighting would include pole-mounted lights for vehicular areas, pedestrian scale pole-mounted lights for general campus illumination along pedestrian pathways, bollard pathway lighting for enclosed garden areas, and downlight-mounted lighting with architectural shade canopy at facility entryway points. Exterior lighting around the building is automatic, controlled by motion/ambient and light sensor built-in with the fixtures. Exterior security lights are also automatic controlled by motion/ambient and light sensor built-in with the fixtures. Parking lot lights are automatic controlled by motion sensor and Photocell which are built-in with the light fixtures. These light sensors would turn on lights when it gets dark or when motion is detected. They also serve to save energy by switching themselves to ambient mode when extra light is unnecessary. The proposed lighting plan is shown on Figure 3-8.

3.5.2 Grading

The project site was previously graded in 2002, but additional earthwork would be required to accommodate the behavioral health hospital. Approximately 61,000 cubic yards of cut and 10,000 cubic yards of fill would be required, resulting in an export of 51,000 cubic yards of soil. The existing grade separation between the site and the adjacent residential areas would remain as the existing perimeter manufactured slope would not be altered by the proposed finish grading of the site. The proposed Grading Plan is shown on Figure 3-9.

Map Source: SWA Architects

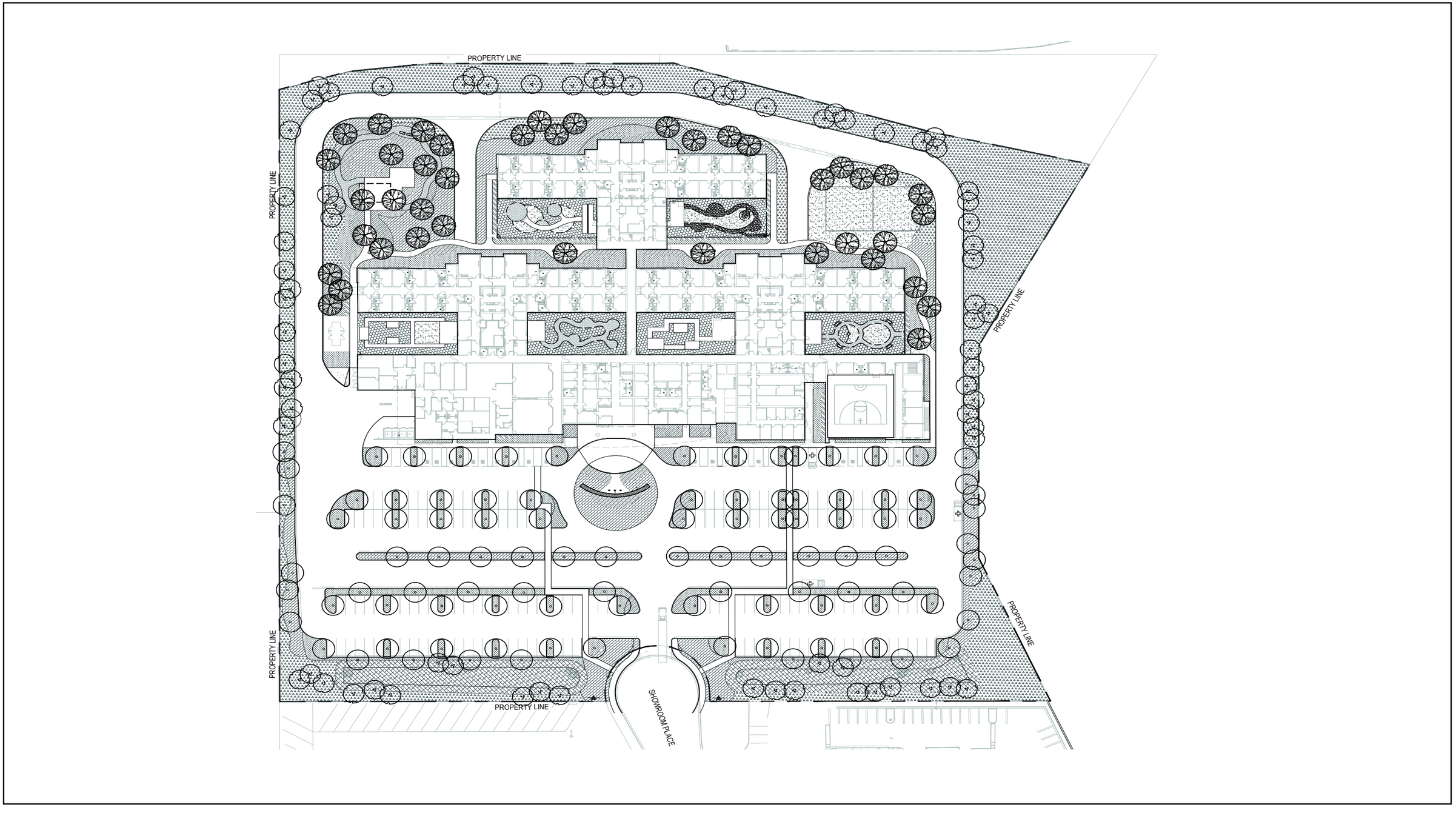

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FIGURE 3-6a
Landscape Plan

Map Source: SWA Architects

PLANT MATERIAL LEGEND

Plant sizes are indicated for general reference by height x width.

(41) IN TOTAL

EVERGREEN PATIO SHADE TREE

Character defining trees that provide a large canopy of shade for pedestrians in patio areas and along pathways
36" box size
- Olea europaea (Common Olive), 20' x 15'
- Quercus virginiana (Southern Live Oak), 40' x 60'
- Quercus agrifolia (Coast Live Oak), 40' x 50'

(90) IN TOTAL

SEMI-EVERGREEN AND EVERGREEN SHADE CANOPY TREE

For shade and to establish a formal plane of vegetation along the parking stalls
50% 24" box size, 50% 36" box size
- Cercidium 'Desert Museum' (Palo verde), 25' x 30'
- Prosopis chilensis (Thornless Chilean Mesquite), 25' x 30'
- Ulmus parvifolia 'True Green' True Green Chinese Elm), 30' x 40'

(76) IN TOTAL

PERIMETER SCREEN TREE

For screening and transition to open space
50% 15 gallon size, 50% 24" box size
- Quercus agrifolia (Coast Live Oak), 20'-70' x 30'-80'
- Plantus racemosa (California Sycamore), 30'-80' x 20'-50'
- Acacia salicina (Black Wattle), 40' x 15'
- Acacia stenophylla (Shoestring Acacia), 30' x 20'
- Lophostemon confertus (Brisbane Box)

EVERGREEN SPREADING GROUNDCOVERS AND GRASSES

100% 1 gallon size @ 42" O.C. average spacing
- Festuca rubra (Creeping Red Fescue) - WUCOLS H
- Senecio mandraliscae (Blue Chalksticks) - WUCOLS L
- Baccharis pilularis 'Pigeon Point' (Dwarf Coyote Brush) - WUCOLS L
- Cotoneaster dammeri 'Lowfast' (Bearberry Cotoneaster) - WUCOLS L
- Westringia fructicosa 'Mundi' (Low Coast Rosemary) - WUCOLS L
- Lantana montevidensis (Trailing Lantana) - WUCOLS L
- Lantana 'New Gold' (New Gold Lantana) - WUCOLS VL
- Carissa macrocarpa 'Green Carpet' (Green Carpet Natal Plum) - WUCOLS L

MEDIUM HEIGHT (24"-42") EVERGREEN FOUNDATION SHRUBS AND ORNAMENTAL GRASSES

100% 5 gallon size @ 36" O.C. average spacing
- Carissa macrocarpa (Natal Plum) - WUCOLS L
- Callistemon 'Little John' (Dwarf Callistemon) - WUCOLS L
- Crassula ovata (Baby Jade) - WUCOLS L
- Ligustrum japonicum 'Texanum' (Waxleaf Privet) - WUCOLS M
- Rhaphiolepis umbellata 'Minor' (Dwarf Yeddo Hawthorn) - WUCOLS L
- Senecio decaryi (Madagascar Senecio) - WUCOLS L
- Westringia fruticosa 'Blue Gem', (Coast Rosemary) - WUCOLS L
- Westringia fruticosa 'Grey Box' (Dwarf Coastal Rosemary) - WUCOLS L
- Festuca mairei (Atlas Fescue) - WUCOLS L
- Lomandra 'Breeze' (Dwarf Mat Rush) - WUCOLS M
- Leonotis leonurus (Lion's Ear) - WUCOLS L
- Senecio barbertonicus (Succulent Bush Senecio) - WUCOLS L

WATER QUALITY BASIN PLANTING

100% 1 gallon size, 36" O.C.
- Achillea millefolium (Common Yarrow) - WUCOLS L
- Carex praegracilis (California Field Sedge) - WUCOLS M
- Chondropetalum tectorum (Cape Rush) - WUCOLS L
- Iris Douglasiana (Douglas Iris) - WUCOLS L
- Juncus patens (California Gray Rush) - WUCOLS L
- Lomandra longifolia (Dwarf Mat Rush) - WUCOLS L
- Leymus condensatus 'Canyon Prince' (Canyon Prince Wild Rye) - WUCOLS L

LOW HEIGHT (12"-18") FOREGROUND SHRUBS, GROUNDCOVERS, AND SUCCULENTS

- Aloe 'Blue Elf' (Blue Elf Aloe) - WUCOLS L
- Aloe brevifolia (Short-leaved Aloe) - WUCOLS L
- Aloe 'Cynthia Giddy' (Cynthia Giddy Aloe) - WUCOLS L
- Aloe striata (Coral Aloe) - WUCOLS L
- Carex praegracilis (Clustered Field Sedge) - WUCOLS M
- Carissa macrocarpa 'Green Carpet' (Green Carpet Natal Plum) - WUCOLS L
- Salvia chamaedryoides (Germander Sage) - WUCOLS L
- Senecio mandraliscae (Blue Chalksticks) - WUCOLS L
- Sesleria autumnalis (Autumn Moor Grass) - WUCOLS M
- Trachelospermum jasminoides (Star jasmine) - WUCOLS M

TALL HEIGHT (6'-8') EVERGREEN SCREENING SHRUBS

75% 5 gallon size, 25% 15 gallon size
- Bambusa dolichomerithalla 'Green Stripe' (Green Stripe Blowgun Bamboo) - WUCOLS M
- Dodonaea viscosa 'Atropurpurea' (Smoke Bush) - WUCOLS L
- Feijoa sellowiana (Pineapple Guava) - WUCOLS L
- Laurus nobilis (Sweet Bay) - WUCOLS L
- Ligustrum japonicum 'Texanum' (Waxleaf Privet) - WUCOLS M
- Prunus caroliniana (Carolina cherry-laurel) - WUCOLS M
- Callistemon viminalis 'Slim' (Slim Bottlebrush) - WUCOLS L

LOW HEIGHT GARDEN PLANTINGS: MIXTURE OF SUCCULENTS, ORNAMENTAL GRASSES, AND GRASS-LIKE PLANTS AND PERENNIALS

25% 5 gallon size, 75% 1 gallon size @ 42" O.C.
- Aeonium arboreum (Tree Aeonium) - WUCOLS L
- Aeonium abroreum var. atropurpureum (Purple Aeonium) - WUCOLS L
- Aloe 'Blue Elf' (Blue Elf Aloe) - WUCOLS L
- Aloe brevifolia (Short-leaved Aloe) - WUCOLS L
- Aloe 'Cynthia Giddy' (Cynthia Giddy Aloe) - WUCOLS L
- Aloe striata (Coral Aloe) - WUCOLS L
- Anigozanthos 'Bush Ranger' (Dwarf Kangaroo Paw) - WUCOLS M
- Carex praegracilis (Clustered Field Sedge) - WUCOLS M
- Carissa macrocarpa 'Green Carpet' (Green Carpet Natal Plum) - WUCOLS L
- Dianella revoluta 'Little Rev' (Little Rev Flax Lily) - WUCOLS L
- Dianella tasmanica 'Variegata' (White Striped Tasman Flax Lily) - WUCOLS L
- Hesperaloe parviflora (Texas Red Yucca) - WUCOLS VL
- Lantana montevidensis (Trailing Lantana) - WUCOLS L
- Lantana 'New Gold' (New Gold Lantana) - WUCOLS L
- Lomandra 'Breeze' (Dwarf Mat Rush) - WUCOLS M
- Salvia chamaedryoides (Germander Sage) - WUCOLS L
- Salvia spathacea (Hummingbird Sage) - WUCOLS L
- Senecio mandraliscae (Blue Chalksticks) - WUCOLS L
- Sesleria autumnalis (Autumn Moor Grass) - WUCOLS M
- Trachelospermum jasminoides (Star jasmine) - WUCOLS M
- Westringia fructicosa 'Mundi' (Low Coast Rosemary) - WUCOLS L

PERIMETER SHRUB & HYDROSEED

Combination of two seed mixes and container shrub plantings:
40% Ornamental, Low Growing Native Mix by S&S Seeds
- Achillea millefolium (Yarrow) - WUCOLS L
- Acmispon glaber (Deerweed) - WUCOLS VL
- Camissoniopsis cheiranthifolia (Beach Evening Primrose) - WUCOLS VL
- Clarkia bottae (Punch-bowl Godetia) -
- Collinsia heterophylla (Chinese Houses) -
- Eschscholzia californican (California Poppy) - WUCOLS VL
- Festuca microstachys (Small Fescue) - WUCOLS L
- Lasthenia californica (Dwarf Goldfields) -
- Layia platyglossa (Tidytips) -
- Lupinus bicolor (Bicolor Lupine) - WUCOLS L
- Lupinus nanus (Sky Lupine) - WUCOLS L
- Mimulus aurantiacus longiflorus (Sticky Monkeyflower) - WUCOLS VL
- Mimulus aurantiacus puniceus (Mission Red Monkeyflower) - WUCOLS VL
- Muhlenbergia microsperma (Littleseed Muhly) - WUCOLS L
- Nemophila maculata (Five Spot) - WUCOLS L
- Sisyrinchium bellum (Blue-eyed Grass) - WUCOLS L

40% Native Fescue Mix
- Festuca occidentalis (Western Mokelumne Fescue) - WUCOLS L
- Festuca idahoensis (Idaho Fescue) - WUCOLS L
- Festuca rubra (Creeping Red Fescue) - WUCOLS H

20% 1 Gallon Shrub/Grass @ 36" QC. Average Spacing
- Baccharis pilularis (Coyote brush) - WUCOLS L
- Carex praegracilis (Clustered Field Sedge) - WUCOLS M
- Carissa macrocarpa 'Green Carpet' (Green Carpet Natal Plum) - WUCOLS L
- Hesperaloe parviflora (Hummingbird Yucca) - WUCOLS VL
- Lantana montevidensis (Trailing Lantana) - WUCOLS L
- Lantana 'New Gold' (New Gold Lantana) - WUCOLS VL
- Lomandra 'Breeze' (Dwarf Mat Rush) - WUCOLS VL
- Salvia chamaedryoides (Germander Sage) - WUCOLS L
- Salvia spathacea (Hummingbird Sage) - WUCOLS L
- Westringia fructicosa 'Mundi' (Low Coast Rosemary) - WUCOLS L

TURF GRASS

Marathon II SOD (Dwarf Tall Fescue)

SCREENING VINE AT PERIMETER WALL

100% 5 Gallon Size
- Macfadyena unguis-cati - WUCOLS L
- Bougainvillea - WUCOLS L
- Thunbergia gregorii - WUCOLS M
- Distictis sp. - WUCOLS M

TOTAL LANDSCAPE AREA: 164,206 SF
TOTAL SITE: 461,036 SF
PERCENTAGE OF LANDSCAPE AREA TO TOTAL SITE: 35.6%
PERCENTAGE OF SHADE COVERAGE OVER PARKING STALLS (AFTER 5 YEARS OF GROWTH): 51.4%

MAINTENANCE

"MAINTENANCE: ALL REQUIRED LANDSCAPE AREAS SHALL BE MAINTAINED BY THE OWNER. LANDSCAPE & IRRIGATION AREAS IN THE PUBLIC ROW SHALL BE MAINTAINED BY THE OWNER. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS, WEEDS AND LITTER AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION AT ALL TIMES. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMIT." (City of Chula Vista Regulations and Standards)

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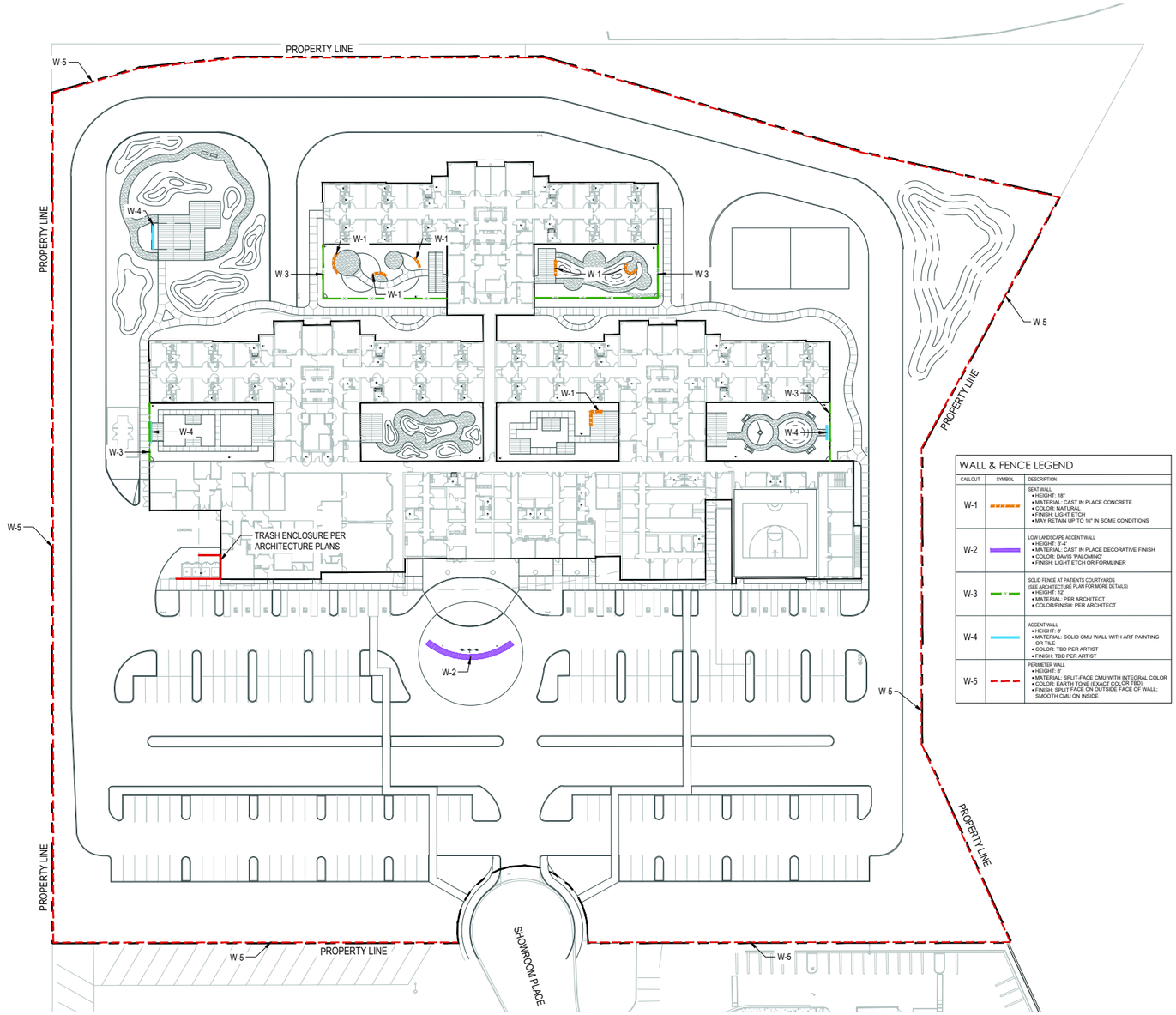
FIGURE 3-6b
Planting Legend

Map Source: SWA Architects



WALL & FENCE LEGEND

CALLOUT	SYMBOL	DESCRIPTION
W-1		SEAT WALL • HEIGHT: 18" • MATERIAL: CAST IN PLACE CONCRETE • COLOR: NATURAL • FINISH: LIGHT ETCH • MAY RETAIN UP TO 16" IN SOME CONDITIONS
W-2		LOW LANDSCAPE ACCENT WALL • HEIGHT: 3'-4' • MATERIAL: CAST IN PLACE DECORATIVE FINISH • COLOR: DAVIS 'PALOMINO' • FINISH: LIGHT ETCH OR FORMLINER
W-3		SOLID FENCE AT PATIENTS COURTYARDS (SEE ARCHITECTURE PLAN FOR MORE DETAILS) • HEIGHT: 12' • MATERIAL: PER ARCHITECT • COLOR/FINISH: PER ARCHITECT
W-4		ACCENT WALL • HEIGHT: 8' • MATERIAL: SOLID CMU WALL WITH ART PAINTING OR TILE • COLOR: TBD PER ARTIST • FINISH: TBD PER ARTIST
W-5		PERIMETER WALL • HEIGHT: 8' • MATERIAL: SPLIT-FACE CMU WITH INTEGRAL COLOR • COLOR: EARTH TONE (EXACT COLOR TBD) • FINISH: SPLIT FACE ON OUTSIDE FACE OF WALL; SMOOTH CMU ON INSIDE

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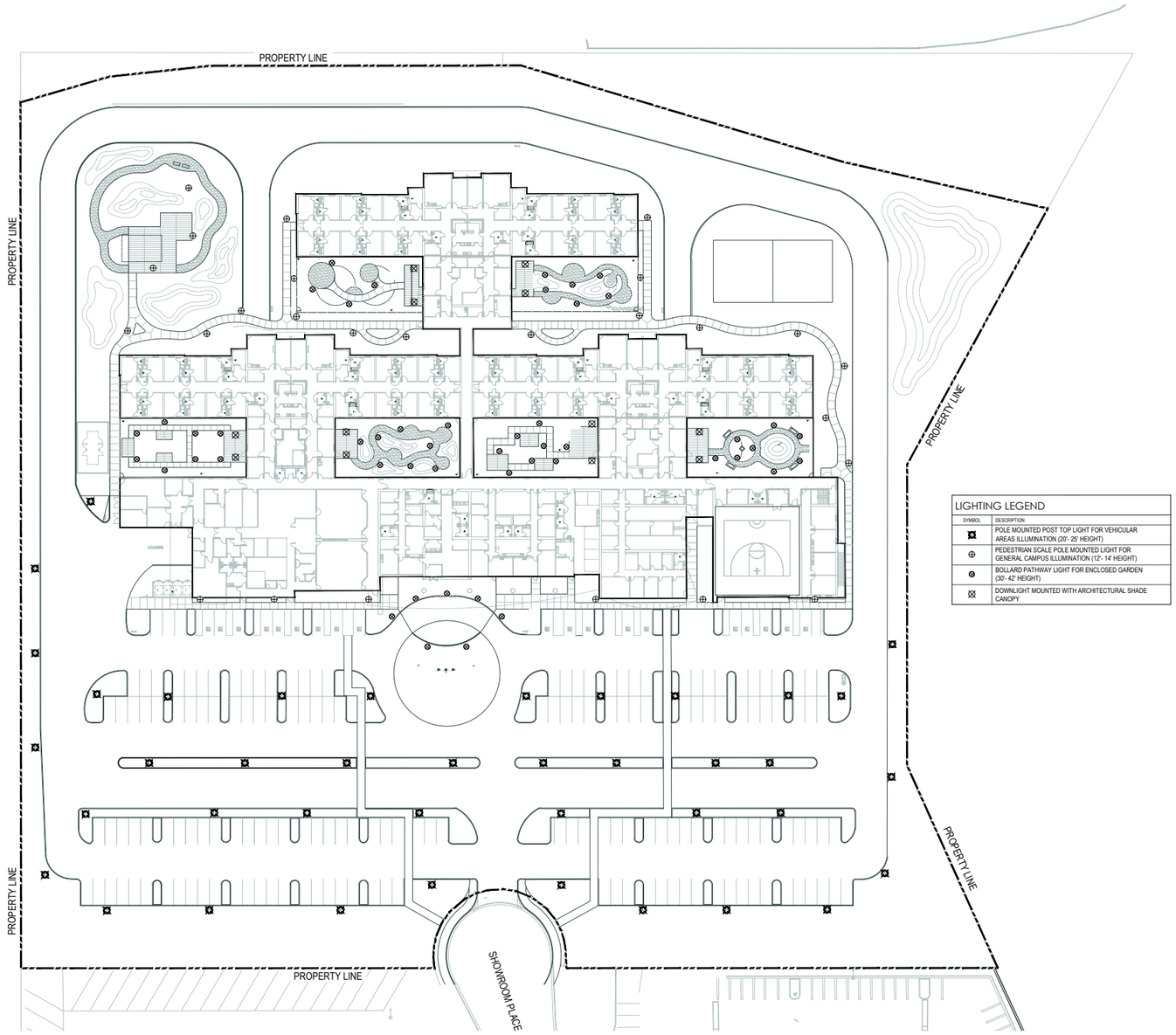
FIGURE 3-7
Wall and Fence Plan

Map Source: SWA Architects



LIGHTING LEGEND

SYMBOL	DESCRIPTION
⊠	POLE MOUNTED POST TOP LIGHT FOR VEHICULAR AREAS ILLUMINATION (20'- 25' HEIGHT)
⊕	PEDESTRIAN SCALE POLE MOUNTED LIGHT FOR GENERAL CAMPUS ILLUMINATION (12'- 14' HEIGHT)
⊗	BOLLARD PATHWAY LIGHT FOR ENCLOSED GARDEN (30'- 42' HEIGHT)
⊠	DOWNLIGHT MOUNTED WITH ARCHITECTURAL SHADE CANOPY

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FIGURE 3-8
Lighting Plan

Map Source: SWA Architects

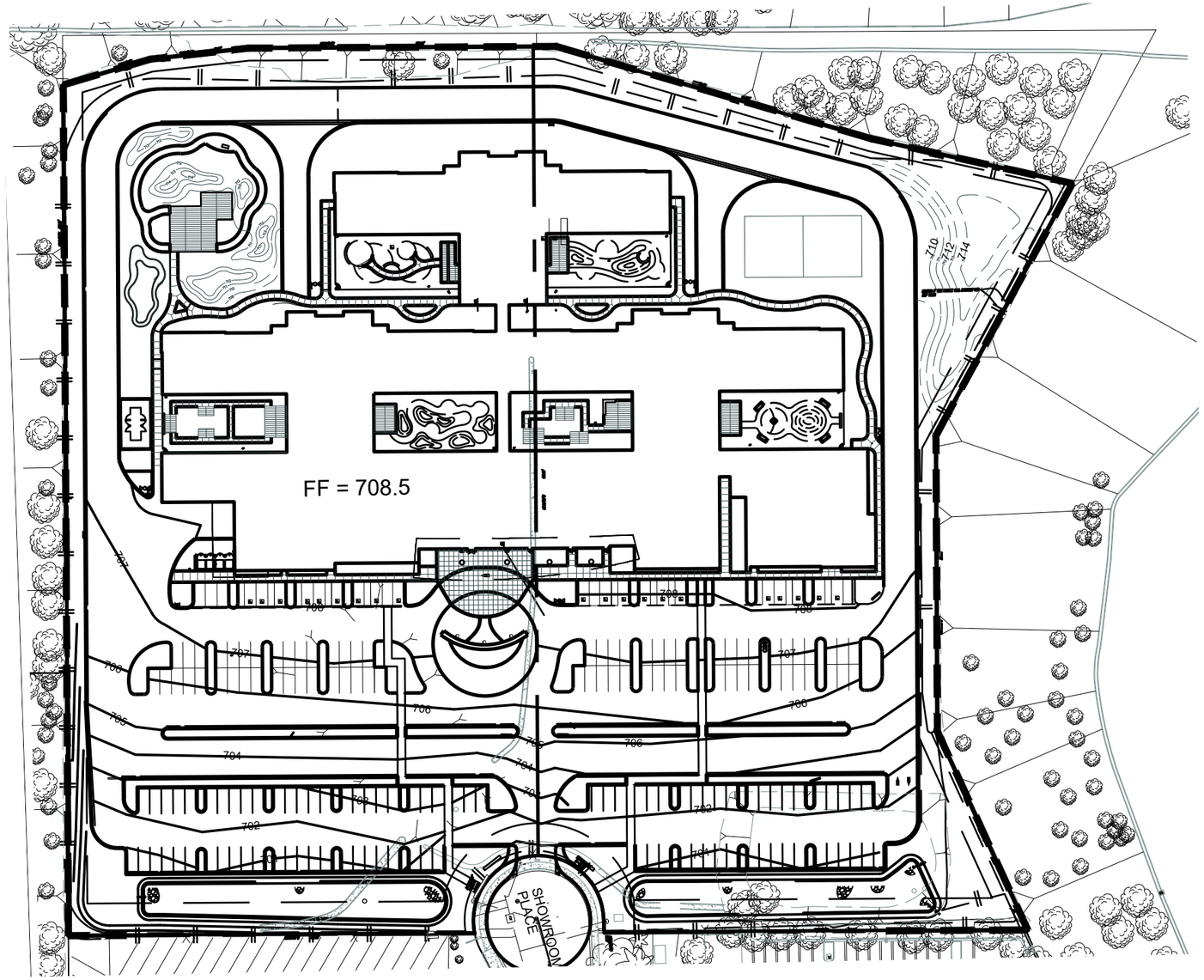

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FIGURE 3-9
Grading Plan

3.5.3 Personnel and Security

The project would operate 24 hours per day, employing approximately 150 staff and facility personnel, working in three employee shifts. Day shifts would be eight hours, except for nursing who would work 12 hours. Shifts are anticipated to be varying times (depending on type of personnel) between 7:00 a.m. to 3:00 p.m., 3:00 p.m. to 11:00 p.m., and 11:00 p.m. to 7:00 a.m.

The project includes a security plan which addresses security of patients, staff, and the surrounding community. On-site security measures include fencing and landscape barriers, a single public entry and exit from a driveway at the end of the cul-de-sac, 24-hour monitoring of common areas through closed circuit camera monitoring, patient checks at a minimum of every 15 minutes, and controlled access in and out to the facility and between units to encourage safety. Security personnel will be on-site 24 hours a day to monitor the hospital and the surrounding area.

3.6 Circulation and Access

Access to the project site would be taken from the driveway at the end of the cul-de-sac at the terminus of Showroom Place. An internal roadway around the perimeter of the project site would allow for large truck and fire truck access. The Internal Circulation Plan is shown in Figure 3-10.

3.7 Parking

As shown on Figure 3-5, internal parking lots would be constructed within the southern portion of the project site. Pursuant to the Eastlake II Specific Plan (which governs development standards), a hospital is required to provide 1.5 parking spaces per bed. Therefore, the project is required to provide a total of 180 parking spaces. The project proposes to construct a total of 186 parking spaces, with 20 of these designated as accessible spaces. Patient and visitors would park closest to the building. Staff would park towards the south, closer to the vehicular entry point.

3.8 Infrastructure

3.8.1 Drainage and Storm Water Quality

The project would construct two on-site storm water runoff detention and biofiltration basins to manage runoff, located along the southern border of the site, adjacent to the project's driveway entrance. The project includes on-site drainage facilities consistent with the Chula Vista Municipal Code (CVMC) and all City regulations and policies relating to drainage and storm water runoff. Overall, storm water would be transferred from the site to an existing 24-inch storm drain line located within the cul-de-sac at the terminus of Showplace Drive. No upgrades to the existing system would be required (see Sections 5.8 and 5.12 of this EIR). The proposed drainage condition/Best Management Practices (BMP) map is shown in Figure 3-11.

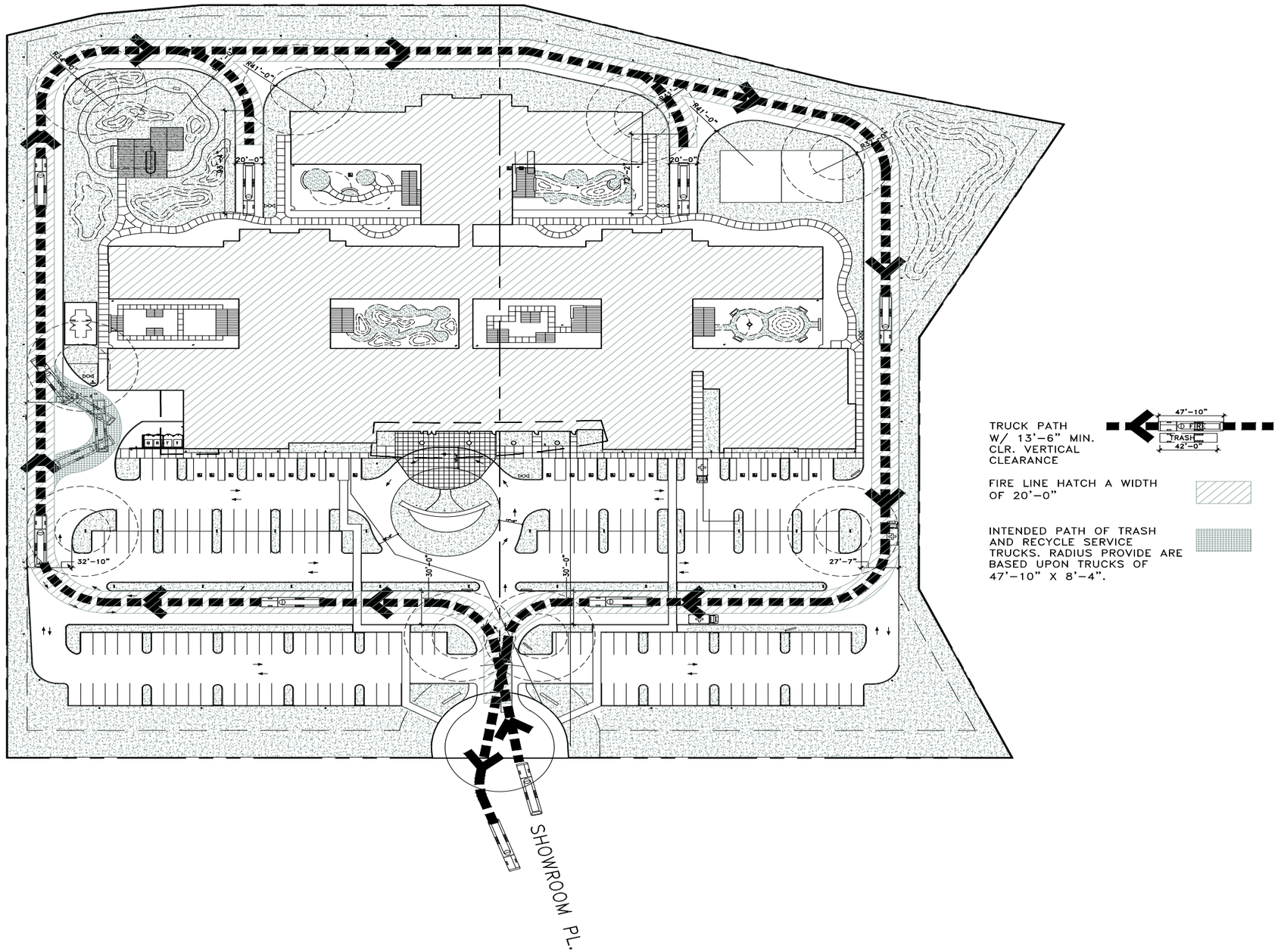

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FIGURE 3-10

Internal Circulation Plan

Map Source: KNS Engineering

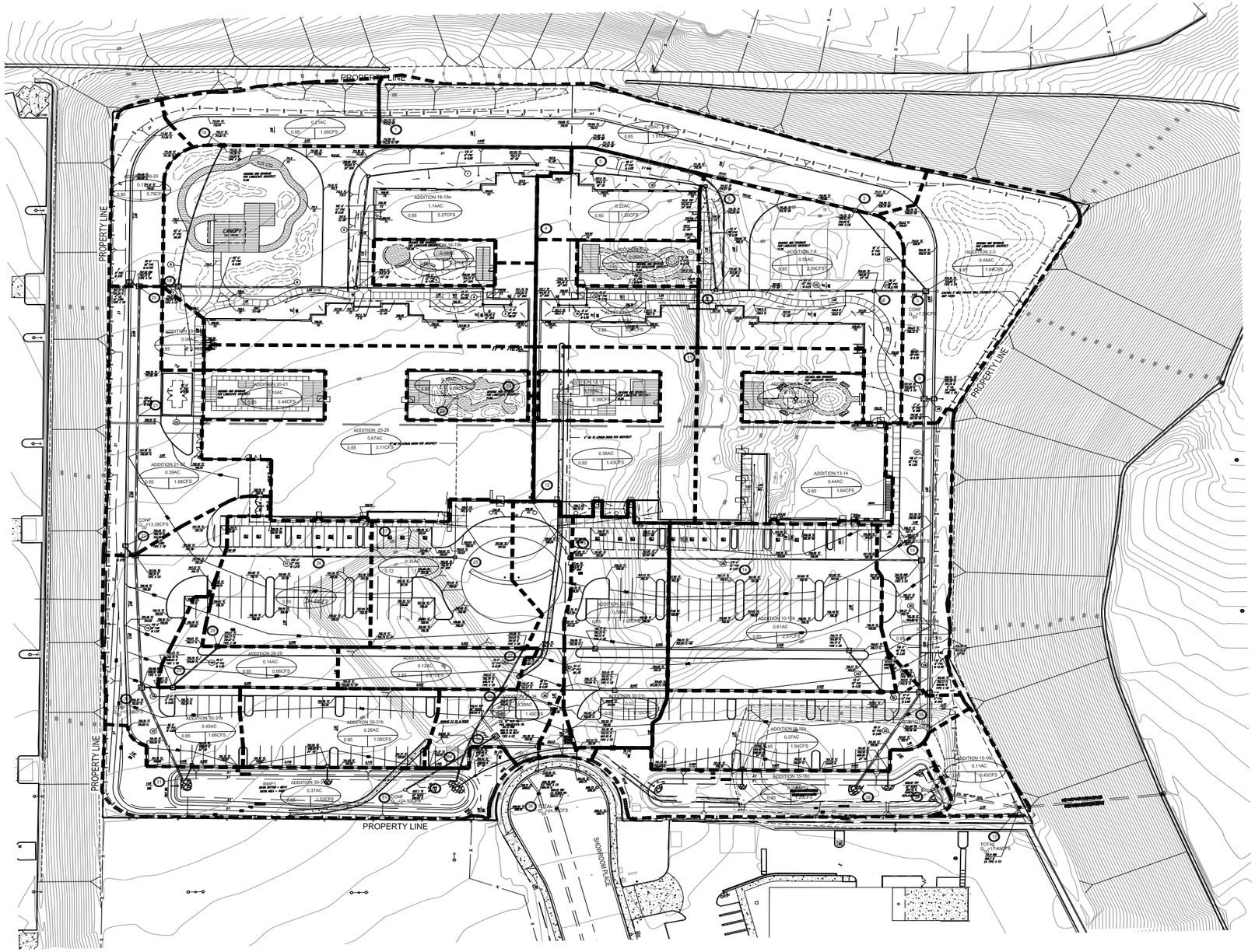

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FIGURE 3-11
Best Management Practices (BMP) Map

3.8.2 Water

The project would be served by the Otay Water District. Specifically, the project would connect to an existing 12-inch water pipe located within the cul-de-sac at the terminus of Showplace Drive. No upgrades to the existing system would be required (see Section 5.12 of this EIR).

3.8.3 Wastewater

Sewer disposal would be provided by the City. The project would connect to the existing 8-inch sewer line located within the cul-de-sac at the terminus of Showplace Drive. No upgrades to the existing system would be required (see Section 5.12 of this EIR).

3.9 Utilities and Services

Communications systems for telephone, computers, and cable television for the project would be provided by service providers such as AT&T, Cox, and other independent telecommunications companies. The City also works with service providers to underground overhead wires, cables, conductors, and other structures associated with communication systems in residential areas in accordance with proposed development projects. San Diego Gas & Electric would provide electricity and natural gas. Utilities necessary to serve the proposed uses would be installed in conjunction with the development of the project.

Public services (see Section 5.10 of this EIR) would be provided as follows:

- Fire: The project would be served by the City of Chula Vista Fire Department. The closest station is Fire Station 8, located at 1180 Woods Drive, Chula Vista, California 91914, approximately one mile from the project site. The project would be designed to be consistent with the California Fire Code as adopted by the City. Fire hydrants and fire access lanes would be installed consistent with requirements and hydrants would conform to all placement and identification regulations.

- Police: The project would be served by the City of Chula Vista Police Department. The police department is comprised of 249 sworn officers, 106 civilian employees, and more than 100 volunteers (www.chulavistaca.gov/departments/police-department/about-us). The Police Department is located at 315 Fourth Avenue, Chula Vista, California 91910. The Patrol Division provides quality law enforcement to the residents and visitors to the City 24 hours a day, 7 days a week.

- Library: The City of Chula Vista's Public Library system has three branches located throughout the City. The closest library branch to the project site is Otay Ranch, located at 2015 Birch Road, Suite 40, Chula Vista, California 91915.

3.10 Off-Site Improvements

As a result of the Local Mobility Analysis prepared for the project pursuant to City Transportation Study Guidelines, the project includes the commitment of funding for the construction of a traffic signal at the intersection of Harold Place/Fenton Street. Additionally, the project includes provision of a fair share towards the construction of Adaptive Traffic Signal Control modules to all signalized intersections along Otay Lakes Road between Eastlake Parkway and Hunte Parkway. These improvements would allow the project to be consistent with relevant plans, policies, and programs relating to transportation. (see Section 5.11 of this EIR).

3.11 Environmental Design Consideration

The project would implement the following project design features to both support sustainability and for avoidance of environmental impacts. These project design features have been noted on project plans and/or throughout the environmental document, as necessary. Implementation of these design measures would be considered part of the project and required as conditions of project approval or other implementation mechanisms.

- Aesthetics/Visual Quality: The project design is a one-story, at-grade development, which would be constructed on a previously graded pad. The project design maintains a low-profile aesthetic, avoiding any interruption in existing land use patterns. Specifically, the building design and proposed landscape provides visual screening from the residential neighborhood located below grade. The project grading would not result in any changes to the existing grade separation between the project site and adjacent residential neighborhoods (see Section 5.2 of this EIR).
- Storm Water Runoff/Drainage: The project is designed to reduce storm water runoff through inclusion of two on-site storm water runoff detention and biofiltration basins. The project site is designed such that the peak runoff flow from the project site would be less than its current condition, thereby avoiding drainage and storm water related impacts (see Section 5.8 of this EIR).
- Landscape: The project's planting palette includes low and moderate water use plant species. Smart irrigation controllers would be installed and plants would be grouped by water needs as detailed in planting and irrigation plans. No invasive plant species would be used. This design would allow the project to meet City water conservation and landscape requirements.
- Recycling: The project would provide litter bins with recycling as a way to reduce the amount of waste disposed. The project would comply with the City's Recycling Ordinance and Refuse and Recyclable Material Storage Regulations.

- Energy: The inclusion of energy conserving measures would ensure the project's consistency with the City's Climate Action Plan and, therefore, avoid greenhouse gas related impacts (see Sections 5.4 and 5.6 of this EIR).
- Water: minimize water consumption through installation of low-flow fixtures/appliances including kitchen faucets, dishwashers, and clothes washers. Units would be equipped with a demand hot water recirculation system per A4.303.5 of the California Green Building Standards Code.

3.12 Locational and Operational Characteristics

Locational and operational features are described below.

3.12.1 Discharge of Patients

Hospital policy will ensure that discharge plans include secure transportation for patients to their home or next care site. Prior to discharge, patients must have a detailed discharge plan that outlines the specifics of the transition to and location of their next stage of care (e.g., nursing home, residential treatment center, long-term rehabilitation, transitional or temporary housing, and personal residence). Arranged transportation would be provided to specific post-treatment care locations for all patients upon discharge, either by hospital personnel or in some cases by the patient's family, legal guardians, or other authorized individuals.

To ensure that patients do not remain on-site after discharge, on-site security would include controlled access to the facility and between units, one public entry and exit, 24-hour monitoring of common areas, minimum 15-minute patient checks, and design features to encourage safety. Security personnel will be on-site 24 hours a day to monitor the hospital and the surrounding area.

3.12.2 Patient Access

Generally, patients (both inpatient and outpatient) will arrive and depart by coordinated, secure private transportation.

3.12.3 Patient Care

The project would provide both inpatient and intensive outpatient treatment for behavioral health conditions not requiring intensive, simultaneous medical treatment. Like all licensed hospitals, the project's clinical staff will have the full ability to safely provide for the needs of its behavioral health patients (including in-house pharmacy and medication dispensing), who in some cases may also be living with chronic but stable medical conditions such as diabetes, heart disease, hypertension and those affecting mobility. Daily support services such as daily medical visits by an internist, nutrition support, and physical therapy will be provided.

4.0 ENVIRONMENTAL SETTING

This section briefly describes the regional setting and on-site characteristics of the project area. A more detailed description of existing conditions is provided in the beginning of each impact issue area addressed in Chapter 5.0 of the EIR.

4.1 Project Location and Regional Setting

The City of Chula Vista (City) is an incorporated city located approximately 12 miles south and southeast of the downtown area of the City of San Diego and 4 miles north of the Otay Mesa border crossing via the State Route 125 (SR-125) toll road. The City encompasses approximately 50 square miles, with National City and County of San Diego lands forming its northern boundary and the Otay River roughly demarcating the City's southern boundary. The City's eastern boundary extends to San Miguel and the Jamul Mountains. Figures 3-1 and 3-4 depict the regional location and vicinity location, respectively.

The proposed Eastlake Behavioral Health Hospital (project) project site is located in the northeast corner of the Eastlake Business Center II within the City. The Eastlake Business Park is generally bounded on the west by the Eastlake Business Center I/ Eastlake Parkway; on the north by slopes dipping into a residential community known as Rolling Hills; on the east by eastern sloping topography adjacent to a residential community bounded by Hunte Parkway; and Otay Lakes Road to the south. Designated land uses that surround the project site are shown in Figure 4-1.

4.2 Physical On-Site Characteristics

The proposed site is a previously graded, relatively flat, and undeveloped portion of the Eastlake Business Park II, accessed by Showroom Place via Fenton Street/Otay Lakes Road. There are no existing structures or other features of historical or cultural significant within the project site. Additional information regarding the topographic character of the project area is provided in Section 5.2 of this EIR.

The business park is mostly built out with multiple existing commercial uses and parking. A few graded pads remain south of the project site.

4.3 Surrounding Land Uses

As shown on Figure 4-1, the project area is built out with commercial and residential development. Commercial uses are located adjacent to the project site to the south and west. Residential neighborhoods are located to the north and east. These neighborhoods are separated by steep vegetated slopes and do not offer any legal access to the project site. Because the project site sits at a higher elevation than surrounding residential land uses to the north and west, the slopes provide topographic separation between land uses.

When compared to land uses in other directions (to the west, and south), the site is at a similar elevation to the surrounding land uses.

4.4 Planning Context

The project site is located within the Eastlake II General Development Plan (GDP) and Business Center II Supplemental Sectional Planning Area (SPA) Plan. The project site was originally located within the Eastlake III GDP; however, an amendment to the Eastlake III GDP (1999 GDP Amendment) resulted in expanding the adjacent Eastlake II GDP to include the Business Center II SPA in order to combine similar uses. At that time the project site (along with the entirety of the business center) was designated Research and Limited Manufacturing. Under the 1999 GDP Amendment, the entirety of the business center was intended to be an extension of the westerly adjacent Eastlake Business Center I (City of Chula Vista 1999a). Under the Eastlake II GDP and associated SPA, the project site was designated IR-Retail Commercial. Likewise, under the SPA, the Site Utilization Plan (Exhibit 5 of the SPA) designated the project site as Employment Park. Since its approval, most lots have been developed and support active community serving commercial uses.

The project site has never been developed, and has remained vacant since it was graded consistent with the approved Eastlake Business Center II-Phase 2 grading plans. The project site is currently zoned Business Center 4. A rezone is not required; however, a Conditional Use and Design Review Permits must be approved to allow construction of the project within the zone.

Image Source: Nearmap (Flown September 2019)

Project Boundary

Landuse

- Communications and Utilities
- Community Shopping Center
- Elementary School
- Fire/Police Station
- Freeway
- Golf Course
- Government Office/Civic Center
- Industrial Park
- Junior High School or Middle School
- Lake/Reservoir/Large Pond
- Landscape Open Space
- Light Industry - General
- Multi-Family Residential
- Neighborhood Shopping Center
- Office (Low-Rise)
- Open Space Park or Preserve
- Other Health Care
- Other Retail Trade and Strip Commercial
- Other School
- Other Transportation
- Park - Active
- Post Office
- Public Storage
- Religious Facility
- Residential Recreation
- Residential Under Construction
- Road Right of Way
- Service Station
- Single Family Detached
- Single Family Multiple-Units
- Specialty Commercial
- Vacant and Undeveloped Land
- Warehousing

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FIGURE 4-1

Surrounding Land Uses

5.0 ENVIRONMENTAL IMPACT ANALYSIS

This chapter provides an assessment of environmental factors potentially affected by the Eastlake Behavioral Health Hospital (project) as required by the California Environmental Quality Act (CEQA) Guidelines Section 15064. Using CEQA Guidelines Appendix G and the City of Chula Vista (City) Threshold Standards, the following sections analyze the potential environmental impacts that could occur as a result of project implementation. The environmental issues analyzed in the following sections include those that were identified by the City through the scoping process (see Appendix A).

Thirteen environmental issues, as identified in CEQA Guidelines Appendix G, are addressed in the following sections of the Environmental Impact Report (EIR). The remaining issues of agricultural and forestry resources, biological resources, cultural resources/tribal cultural resources, mineral resources, and population and housing were determined to be less than significant as disclosed in the Notice of Preparation, and are discussed briefly in Chapter 8.0.

The environmental issues addressed in Chapter 5.0, in sequential order, include:

- Land Use (Section 5.1)
- Landform Alteration/Aesthetics (Section 5.2)
- Air Quality (Section 5.3)
- Energy (Section 5.4)
- Geology and Soils (Section 5.5)
- Greenhouse Gas Emissions (Section 5.6)
- Hazards (Section 5.7)
- Hydrology and Water Quality (Section 5.8)
- Noise (Section 5.9)
- Public Services and Recreation (Section 5.10)
- Transportation (Section 5.11)
- Utilities and Service Systems (Section 5.12)
- Wildfire (Section 5.13)

Each section is formatted to include a discussion of existing conditions, the criteria for the determination of impact significance (threshold of significance), evaluation of potential project impacts (direct and cumulative), summary conclusion of the level of significance prior to mitigation, a list of required mitigation measures, if applicable, and conclusion of significance after mitigation for impacts identified as requiring mitigation. All potential impacts in Chapter 5.0 are evaluated in relation to applicable City, state, and federal standards.

5.1 Land Use

This section of the Environmental Impact Report (EIR) addresses the consistency of the Eastlake Behavioral Health Hospital project (project) with applicable City of Chula Vista (City) development regulations and planning documents. Information presented is based on review and analysis of City regulations, objectives, and policies within relevant plans. Additionally, project development plans were examined to determine potential land use elated effects of the project.

5.1.1 Existing Conditions

5.1.1.1 Existing and On-site and Surrounding Land Uses

The project is located on 10.42 acres within the Business Center II located north of Otay Lakes Road. As described in Chapter 4.0 of this EIR, the project site was previously graded pursuant to the 1999 approval of the Eastlake II General Development Plan (GDP) and Business Center II Supplemental Sectional Planning Area (SPA) Plan. The project site is surrounded by existing development. Specifically, the project site is bounded on the west by existing commercial uses within the business center; on the north by the Rolling Hills Ranch residential community which lies downslope from the project site; on the east by a residential community between the project site and Hunte Parkway, which is also downslope from the site, and commercial uses including Eastlake Medical College, Sky One Trampoline Park, Crunch Fitness Center, and Khanya Ramen and Sushi to the south.

5.1.1.2 Local Planning Context

The project is located in the East Planning Area and Master Planned Communities Subarea. The East Planning Area encompasses open space and master planned communities that are generally bound by Interstate 805 on the west; State Route 54 on the north; the San Miguel Mountain/Proctor Valley area on the northeast and east; and within and adjacent to the City of San Diego and unincorporated San Diego County on the south. The project is located within the master planned community of Eastlake. Development within Eastlake is guided by the Eastlake II GDP which sets more specific goals and policies, and the Business Center II Supplemental SPA Plan which more directly addresses land use, circulation, public facilities, open space, and design guidelines.

5.1.2 Regulatory Setting

5.1.2.1 Local

City of Chula Vista General Plan

The City's General Plan was updated on December 13, 2005 (City of Chula Vista 2005a). The General Plan Update looked out to the year 2030 and provides guidance for the City's growth and development. Specifically, the General Plan now directs growth and manages

resources, provides goals, objectives, and policies intended to create what the City envisions through the year 2030. Therefore, the General Plan is the fundamental policy document of the City and provides the framework for decisions regarding land use, the design, and/or character of buildings and open spaces, and the conservation of existing housing and the provision of new dwelling units.

The Land Use and Transportation (LUT) Element of the City's General Plan provides a link between land use designations, intensity of development, and mobility. The LUT Element establishes plans and policies to establish direction for new development, redevelopment, and community enhancement. The following objectives and policies found in the LUT Element are relevant to the project.

OBJECTIVE LUT 1

Provide a balance of residential and non-residential development throughout the City that achieves a vibrant development pattern, enhances the character of the City, and meets the present and future needs of all residents and businesses.

Policy LUT 1.2: Coordinate planning activities and resources to balance land uses, amenities, and civic facilities in order to sustain or improve the quality of life.

OBJECTIVE LUT 6

Ensure adjacent land uses are compatible with one another.

Policy LUT 6.2: Require that proposed development plans and projects consider and minimize project impacts upon surrounding neighborhoods.

OBJECTIVE LUT 69

Create and maintain unique, stable, and well-designed communities that are master planned to guide development activities.

Policy LUT 69.1: The policies and regulations within GDP and SPA plans that are specific to each community shall continue to guide the completion of development activities.

The Economic Development (ED) Element details the methods to establish the long-term vitality of the local economy and shape future economic development. The following objective and policies found in the ED Element are relevant to the project:

OBJECTIVE ED 2

Maintain a variety of job and housing opportunities to improve Chula Vista's jobs/housing balance.

Policy ED 2.2: Pursue a diverse supply of housing types and costs, as well as a diverse supply of jobs with varying income potential, to balance local job and housing opportunities.

Policy ED 2.6: Leverage economic development incentives to provide high-quality jobs for Chula Vista Residents.

The Public Facilities and Services (PFS) Element focuses on public infrastructure, public safety, and health and human services that support the community and allow it to operate efficiently. In addition, hospitals are identified as a place where people could receive care and treatment in the event of an emergency situation or major disaster. The substantial residential growth throughout the City over the past two decades has caused an increased demand for medical services. The following objective and policy found in the PFS Element are relevant to the project:

OBJECTIVE PFS 6

Provide adequate fire and police protection services to newly developing and redeveloping areas of the City.

Policy PFS 6.1: Continue to require new development and redevelopment projects to demonstrate adequate access for fire and police vehicles.

Eastlake II General Development Plan

In addition to the General Plan, several planning tools are used to implement policies set forth in the General Plan elements. In particular, the City has prepared customized regulatory documents to provide more focused guidance and regulation for particular areas. These include specific plans, GDP, SPA plans, and precise plans. In 1999, an amendment expanded the Eastlake II GDP area to include the Business Center II SPA. A supplemental SPA Plan for the business center expansion was approved concurrently with the GDP amendment. From a planning perspective, the project is located within the Eastlake II GDP, which is implemented and further regulated by the Business Center II Supplemental SPA Plan (see below).

The purpose and scope of the Eastlake II GDP includes the establishment of a planning and development framework to allow diverse land uses to exist in harmony within planned community and surrounding developments (City of Chula Vista 1999b, as amended 2007). Specifically, the GDP establishes districts and defines in broad terms the type and intensity of development permitted in each district. The GDP is implemented through adopted SPA plans, which are more detailed. Overall, the GDP functions as a policy bridge between the General Plan and the SPA Plan (City of Chula Vista 1999b, as amended 2007). Under the GDP, the project site is designated Research and Limited Manufacturing (IR).

Business Center II Supplemental Sectional Planning Area Plan

The purpose of the Business Center II Supplemental SPA Plan is to define, in more detail, the development parameters for the Business Center II project area including the land use, design criteria, circulation pattern, open space concept, and infrastructure requirements to support the project and the overall community (City of Chula Vista 2007). In addition to the IR designation, the project site is identified as Employment Park (EP) 12 under the SPA Site Utilization Plan (City of Chula Vista 2007).

The Business Center II Supplemental SPA Plan provides specific design guidance, especially as it relates to the northern and eastern edges of the Business Center where it abuts residential uses. Section II.2.3.7 of the SPA Plan provides for increased building setbacks and dense landscaping along the upper portions of the Business Center lots and downslope. This area is known as the Residential Interface Buffer.

Permitted uses within the project site under the adopted Business Center II Supplemental SPA Plan include hospital and medical care facilities, subject to a Conditional Use Permit (CUP).

City of Chula Vista Municipal Code/Planned Communities District Zones

The Chula Vista Municipal Code (CVMC) provides consistency and is often reflective of the General Plan's land use goals. The CVMC details regulations that control land use, density, the location, height, bulk, appearance, dimension, open space, and appearance of structures. The Planning and Zoning Code (CVMC Title 19, Chapter 19.02, *et seq*.) contains regulations which provide for the orderly planning and long-term development of land located within Planned Community (PC) zones (see CVMC Chapter 19.48). All PC zones are required to be divided into sectional planning areas. The project is located within a PC zone; governed by the Business Center II Supplemental SPA Plan, and further regulated by the Eastlake II PC District Regulations (City of Chula Vista 2005b) pursuant to the CVMC. The regulations set forth the development and use standards for the project site by establishing setbacks, building heights, parking requirements, landscape requirements, use restrictions, animal regulations, density, lot size, fencing, and signing regulations. The PC District Regulations, along with the Business Center II Supplemental SPA Plan, delineate precisely the allowable use and specific development standards of the project site.

The project site is zoned BC-4 within the PC District which allows for the proposed use with a CUP and the design review is consistent with the specific development standards (Design Review permit).

City of Chula Vista Multiple Species Conservation Program Subarea Plan

The City's Multiple Species Conservation Program (MSCP) Subarea Plan is a subregional plan under the California Natural Communities Conservation Plan (NCCP). The City adopted the MSCP Subarea Plan in 2003. The MSCP is the City's comprehensive long-term habitat conservation plan designed to protect species against the potential impacts of habitat loss associated with development of both public and private lands. Any project subject to City approval must be in conformance with the Subarea Plan. The Chula Vista Subarea is comprised of lands within the incorporated city limits for which Take Authorization will be granted. The City's Preserve will eventually encompass the City's most sensitive open space area.

The project site lies within an area designated for development by the MSCP Subarea Plan.

5.1.3 Thresholds of Significance

Consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts related to land use would be significant if the project would:

1. Physically divide an established community.
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

5.1.4 Impacts

<u>Threshold 1: Physically Divide an Established Community</u>

The project would not result in any changes to the land use patterns that are established in the relevant planning documents including the Eastlake II GDP and Business Center II Supplemental SPA Plan. Specifically, the project site is within the business park, designated IR under the Eastlake II GDP and identified as EP-12 under the Site Utilization Plan (City of Chula Vista 2007). The surrounding land uses consist of commercial development to the south and west, and residential to the north and east. The project would not divide either of these established land use areas, as the project site sits within designated commercial use space, with hospital use permitted subject to a CUP, which is being concurrently processed. The project would comply with all design guidelines and relevant development standards specific to the project site. Through development regulations, including height restrictions, architectural design, and building material requirements, the bulk and scale of the project would be consistent with the existing commercial uses within the business center. The existing grade differential between the project site and the residential areas to the north and east would be maintained and the on-site project landscaping would further provide a buffer between the site and the

adjacent residential areas. Therefore, impacts related to physically dividing an established community would be less than significant.

Additional details relating to the project's consistency with the community character and visual quality aspects of the project area are addressed in Section 5.2 of this EIR.

Threshold 2: Affecting Applicable Land Use Plans, Policies, or Regulations

The project does not propose any change in land use that would be inconsistent with existing plans, policies, or regulations governing the project site. Additionally, the project supports policies relating to public health and safety as detailed below.

General Plan

Evaluation of the project's consistency with the General Plan is presented in Table 5.1-1, which provides a summary of the project's consistency with all relevant General Plan goals, objectives, and policies. As detailed in Table 5.1-1, the project would not result in any changes to development plans or land use patterns. The construction of a hospital use is allowed pursuant to the relevant planning documents including the Eastlake II GDP and Business Center II Supplemental SPA Plan that allows hospital uses subject to a CUP, which is being processed concurrently. Residential neighborhoods are located downslope to the north and east of the project site. The project would adhere to all design and development standards including, screening, walls and fencing, and landscape and architectural design to ensure that the structure and exterior areas would not affect the surrounding neighborhoods.

Additionally, the project is consistent with Objective PFS 19 (Policies 19.1 and 19.8). The project provides a benefit to the community through the construction of a neighborhood integrated facility that would serve all levels of patient needs including adolescent and geriatric patients. The project site is centrally located to serve the community of Eastlake as well as the entirety of the City. The project site is assessable from main roadways (Otay Lakes Road) and State Route 125.

As further summarized in Table 5.1-1, the project would be consistent with all relevant General Plan policies.

TABLE 5.1-1 LAND USE POLICY CONSISTENCY ANALYSIS – GENERAL PLAN	
General Plan Goals, Objectives & Policies	Eastlake Behavioral Hospital Project
LAND USE AND TRANSPORTATION ELEMENT	
Objective LUT 1 **Provide a balance of residential and non-residential development throughout the City that achieves a vibrant development pattern, enhances the character of the City, and meets the present and future needs of all residents and businesses.**	
Policy LUT 1.2: Coordinate planning activities and resources to balance land uses, amenities, and civic facilities in order to sustain or improve the quality of life.	The project site is graded and the proposed used is allowed within the Business Park II Supplemental SPA Plan subject to a Conditional Use Permit. The project would fit the development pattern of the existing business center, as it would comply with all design, and development standards. The provision of a behavior health facility would be beneficial to the community as it would serve all levels of patient needs including adolescent and geriatric patients. The project would be consistent with Policy LUT 1.2.
Objective LUT 6 **Ensure adjacent land uses are compatible with one another**.	
Policy LUT 6.2: Require that proposed development plans and projects consider and minimize project impacts upon surrounding neighborhoods.	The project would not result in any changes to development plans or land use patterns. The construction of a hospital use is allowed pursuant to the Eastlake II GDP and Eastlake Business Center II Supplemental SPA Plan subject to a Conditional Use Permit, which is being processed concurrently. Residential neighborhoods are located to downslope to the north and east of the project site. The project would adhere to all design and development standards including, screening, walls and fencing, landscape and architectural design to ensure that the structure and exterior areas would not affect the surrounding neighborhoods. The project would be consistent with Policy LUT 6.2.
Objective LUT 69 **Create and maintain unique, stable, and well-designed communities that are master planned to guide development activities.**	
Policy LUT 69.1: The policies and regulations within GDP and SPA Plans that are specific to each community shall continue to guide the completion of development activities.	The project would not result in any changes to development plans or land use patterns. The construction of a behavioral health hospital use is allowed pursuant to the Eastlake II GDP and Eastlake Business Center II Supplemental SPA Plan subject to a Conditional Use Permit, which is being processed concurrently. The project would adhere to all design and development standards including, screening, walls and fencing, landscape and architectural design required in each relevant planning document. The project would be consistent with Policy LUT 69.1.
ECONOMIC DEVELOPMENT ELEMENT	
Objective ED 2 **Maintain a variety of job and housing opportunities to improve Chula Vista's jobs/housing balance.**	
Policy ED 2.2: Pursue a diverse supply of housing types and costs, as well as a diverse supply of jobs with varying income	The project would provide new professional, technical, administrative, and manual jobs to the City. It is anticipated that a number of new employees would be residents of the City which would result in beneficial economic opportunities for many diverse levels of employment. The project would be consistent with Policy ED 2.2.

TABLE 5.1-1 LAND USE POLICY CONSISTENCY ANALYSIS – GENERAL PLAN	
General Plan Goals, Objectives & Policies	Eastlake Behavioral Hospital Project
potential, to balance local job and housing opportunities.	
Policy ED 2.6: Leverage economic development incentives to provide high-quality jobs for Chula Vista Residents.	The project would provide new professional, technical, administrative, and manual jobs to the City. The applicant, Acadia Healthcare, in its partnership with Scripps Healthcare, brings high-quality and long-term employment opportunities for many diverse levels of employment. The project would be consistent with Policy ED 2.6.
PUBLIC FACILITIES AND SERVICES ELEMENT	
Objective PFS 6 **Provide adequate fire and police protection services to newly developing and redeveloping areas of the City.**	
*Policy PFS 6.1: Continue to require new development and redevelopment projects to demonstrate adequate access for fire and police vehicles***.**	The project would provide adequate ingress, egress, and tuning ratios to support the internal circulation of fire and emergency vehicles (see Figure 3-10). The project would be consistent with Policy PFS 6.1.
Objective PFS 19 **Provide art and cultural programs, childcare facilities and health and human services that enhance the quality of life in the City of Chula Vista.**	
Policy 19.1: Promote land use designations that accommodate location of childcare facilities and other health and human services near homes; schools; work places; activity centers; and major transit facilities and routes.	The proposed used is allowed within the Eastlake Business Park II Supplemental SPA Plan subject to a Conditional Use Permit. The provision of a behavior health facility would be beneficial to the community as it would serve all levels of patient needs including adolescent and geriatric patients. The project site is centrally located to serve the community of Eastlake as well as the entirety of the City. The project site is assessable from main roadways (Otay Lakes Road) and State Route 125. The project would be consistent with Policy PFS 19.1.
Policy 19.8: Encourage an integrated, neighborhood-based approach to the delivery of health and human services.	The project would provide a new healthcare facility designed to be integrated into its location from both a design and land use perspective. The Eastlake Behavioral Health Hospital would serve all levels of patients and be available to serve the needs of the local community. The project would be consistent with Policy PFS 19.8.

Eastlake II GDP/Business Center II Supplemental SPA Plan

The framework for development within the project site is guided by the Eastlake II GDP as implemented by the Business Center II Supplemental SPA Plan. Pursuant to the land use designations and zoning allowances, the project would be a permitted use subject to a CUP. All building setbacks, landscaping, architectural design, and development regulations would be consistent with the Eastlake II GDP and the Business Center II Supplemental SPA Plan.

The Business Center II Supplemental SPA Plan includes a discussion of community structure which provides specific design guidance related to landscaping required for the residential edge along the northern and eastern edges of the project site (Business Center II Supplemental SPA Plan, page I-7). Specifically, the northern residential edge abutting the Rolling Hills Ranch SPA is required to provide increased building setbacks and dense landscaping along the upper portion of the slope banks (Business Center II Supplemental SPA Plan, page III-4). As shown on Figure 3-6a, the project proposes a wide swath of perimeter shrubs and screening trees along the northern and eastern property edges. Additionally, rear setbacks along the northern edge are 50 feet as required by the property development standards for the Business Center II Supplemental SPA Plan. Therefore, the project would not conflict with applicable land use plans, policies, or zoning regulations.

MSCP Subarea Plan

The project site is designated for development by the MSCP Subarea Plan. The project site is surrounded by development and the site itself has been previously disturbed. The project would not be in conflict with an adopted habitat conservation plan, NCCP, or other approved local, regional, or state habitat conservation plan, including the MSCP.

5.1.5 Level of Significance Prior to Mitigation

The proposed land use, design, and layout for the project would be compatible with existing land use plans and patterns. There are residential neighborhoods in the project vicinity; however, the project would not physically divide these neighborhoods. As required, the project includes a CUP and, therefore, would be consistent with all applicable land use plans, policies, and zoning regulations. The project site is not included or adjacent to MSCP preserve areas and is, therefore, not subject to requirements of the MSCP. Impacts would be less than significant.

5.1.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.2 Landform Alteration/Aesthetics

This section of the Environmental Impact Report (EIR) addresses the potential impacts related to aesthetic resources resulting from the Eastlake Behavioral Health Hospital project (project), specifically as they relate to landform alteration and changes in visual quality within the City of Chula Vista (City). Information presented is based on an evaluation of surrounding land uses, topography, and landform. Additionally, project site development plans, including elevations and architectural designs, were examined to determine potential visual effect of the project.

5.2.1 Existing Conditions

5.2.1.1 Landform and Open Space

The City contains major landforms and open space which defines its visual character. Major landforms are those features that provide physical and unique interest throughout the City. Examples of major landform features include the Chula Vista Greenbelt[1], Rock Mountain, and the San Miguel, Jamul, and San Ysidro mountains. The City Greenbelt is the backbone of the City's open space and park system (City of Chula Vista 2005c). The project site is located within a portion of the City where mesas and canyons are the dominant landform (City of Chula Vista 2005c). As depicted in Figure 5.2-1 of the City of Chula Vista General Plan Update Final Environmental Impact Report (GPU FEIR) there are no major landforms in proximity of the project site, nor is the project site located near the City Greenbelt.

The project site consists of a relatively flat, vacant lot, located in the northeast section of the existing developed Eastlake Business Center. There are no trees, rock outcroppings, historic buildings, or any other scenic qualities within the project site (see Figure 3-3). Residential properties to the north and east are downslope approximately 60 feet at the base of an existing manufactured slope. The project site is located within the existing Eastlake Business Center. Surrounding land uses include a variety of commercial uses, including medical facilities, insurance companies, notary services, realty offices, and physical wellness/dance/learning center facilities.

[1]The Greenbelt incorporates developed and undeveloped open space and potential new open space linkages to form a continuous 28-mile open space and park system around the perimeter of the City.

Southern View

Eastern View

Southeastern View

Northwestern View

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FIGURE 5.2-1

Project Views

5.2.1.2 Scenic Vistas

As noted in the City's GPU FEIR, the mountains and foothills to the east are visible from a number of viewpoints within the City, especially those occupying the mesa tops. As shown in Figure 5.2-1, while the project site itself does not support any visual landform or valuable open space, it offer views of mountains and ridgelines.

The City General Plan identifies two types of scenic highways – urban and rural. Urban routes are those "that traverse an urban area with the scenic corridor offering a view of attractive and exciting urban scenes." Rural scenic highways provide for an enriched experience of natural scenic resources and aesthetic values and may include large preserved canyons or natural areas, or areas within the Chula Vista Greenbelt (City of Chula Vista 2005a, Section 5.2.1.2). Otay Lakes Road, located south of the project site, is designated a scenic highway in the Eastlake II General Development Plan/Business Center II Supplemental Sectional Planning Area Plan (see Section 5.2.2.1).

Additionally, the City maintains its gateways as scenic resources which offer visual introductions to the differing areas throughout the City. As shown in Figure 5-6 of the Land Use and Transportation Element of the City's General Plan, the Otay Lakes Road gateway provides access from State Route 125 into the Eastlake Village Center and Business Park. This gateway is located at the southwest edge of the Eastlake Business Center (City of Chula Vista 2005a).

5.2.2 Regulatory Setting

5.2.2.1 Local

City of Chula Vista General Plan

The Land Use and Transportation (LUT) Element of the General Plan addresses scenic resources and roadways, gateways, and neighborhood identity. Pursuant to Figure 5-4 of the LUT Element, Otay Lakes Road and Hunte Parkway, within the project vicinity, are designated scenic roadways. Additionally, as shown in Figure 5-6 of the LUT Element, the Otay Lakes Road gateway provides access from State Route 125 into the Eastlake Village Center and Business Park. This gateway is located at the southwest edge of the Eastlake Business Center (City of Chula Vista 2005a). There are a number of objectives focused on preserving visual quality and neighborhood character. Objectives and policies relevant to the project include the following:

OBJECTIVE LUT 3

Direct the urban design and form of new development and redevelopment in a manner that blends with and enhances Chula Vista's character and qualities, both physical and social.

OBJECTIVE LUT 6

Ensure adjacent land uses are compatible with one another.

Policy LUT 6.1: Ensure, through adherence to design guidelines and zoning standards, that the design review process guarantees excellence in design and that new construction and alterations to existing buildings are compatible with the best character elements of the area.

Policy LUT 6.2: Require that proposed development plans and projects consider and minimize project impacts upon surrounding neighborhoods.

Policy LUT 6.3: Require that the design of new residential, commercial, or public developments is sensitive to the character of existing neighborhoods through consideration of access, compatible building design and massing, and building height transitions, while maintaining the goals and values set forth in the General Plan.

Policy LUT 6.5: Require, through sensitive and attractive design, that neighborhood retail centers and commercial service buildings are compatible with the surrounding neighborhood.

OBJECTIVE LUT 8

Strengthen and sustain Chula Vista's image as a unique place by maintaining, enhancing, and creating physical features that distinguish Chula Vista's neighborhoods, communities, and public and recreational spaces, and enhance its image as a pedestrian-oriented and livable community.

Policy LUT 8.3: Ensure that buildings are appropriate to their context and designed to be compatible with surrounding uses and enhance the desired character of their district.

OBJECTIVE LUT 11

Ensure that buildings and related site improvements for public and private development are well-designed and compatible with surrounding properties and districts.

Policy LUT 11.2: Promote and place a high priority on quality architecture, landscape, and site design to enhance the image of Chula Vista, and create a vital and attractive environment for businesses, residents, and visitors.

Policy LUT 11.3: The City shall, through the development of regulations and guidelines, ensure that good project landscape and site design creates places that are well-planned; attractive; efficient; safe; and pedestrian-friendly.

Policy LUT 11.4: Actively promote architectural and design excellence in buildings, open space, and urban design.

Policy LUT 11.5: Require a design review process for all public and private discretionary projects.

OBJECTIVE LUT 13

Preserve scenic resources in Chula Vista, maintain the City's open space network, and promote beautification of the City.

Policy LUT 13.4: Any discretionary projects proposed adjacent to scenic routes, with the exception of individual single-family dwellings, shall be subject to design review to ensure that the design of the development proposal will enhance the scenic quality of the route. Review should include site design, architectural design, height, landscaping, signage, and utilities. Development adjacent to designated scenic routes should be designed to:

- Create substantial open areas adjacent to scenic routes through clustering development;
- Create a pleasing streetscape through landscaping and varied building setbacks; and
- Coordinate signage, graphics and/or signage requirements, and standards.

OBJECTIVE LUT 69

Create and maintain unique, stable, and well-designed communities that are master planned to guide development activities.

OBJECTIVE LUT 75

Preserve and protect Otay Ranch's significant natural resources and open space lands with environmentally sensitive development.

Policy LUT 69.1: The policies and regulations within GDP and SPA Plans that are specific to each community shall continue to guide the completion of development activities.

City of Chula Vista Municipal Code

The Chula Vista Municipal Code (CVMC) sets forth the administrative procedures and requirements for permits (CVMC Section 19.14.010). Plans for the establishment, location, expansion, or alteration of structures in all multi-family residential zones and all commercial and industrial zones shall require design review by the Planning Commission (CVMC Section 19.14.582).

Eastlake II General Development Plan/Business Center II Supplemental Sectional Planning Area Plan

Consistent with the LUT Element, the project site is subject to the Eastlake II General Development Plan (GDP)/Business Center II Supplemental Sectional Planning Area (SPA) Plan. The SPA Plan contains specific guidance for development, the following of which is relevant to the project/project site.

SECTION II.2.3.7

Scenic Highway Edge: Otay Lakes Road is designated a scenic highway. The treatment of this scenic highway shall reflect the landscape treatment that currently exists along its southern boundary within the Eastlake Greens SPA. This highway includes a meandering walk and an on-street bicycle trail.

Residential Edge: The northern residential edge abutting the Rolling Hills Ranch SPA will have increased building setbacks and require dense landscaping along the upper portion of slope banks and within a ten foot landscape setback within the abutting lot.

The eastern residential edge is significantly higher than expected residential development in the Eastlake III GDP, but will also require dense landscape along the upper portion of the Eastlake Business Center lots and downslope.

General Landscape Plan: Exhibit 9 of the SPA Plan illustrates the specific locations requiring a residential interface buffer.

Eastlake II Planned Community (PC) District Regulations

The Planned Community (PC) District Regulations are adopted pursuant to the Title 19 CVMC (Zoning) as a means to create development standards that are applicable to the Eastlake Business Center. Property development standards for the BC-4 zone ae detailed in Section IV.2 and summarized in Table 5.2-1.

TABLE 5.2-1 PROPERTY DEVELOPMENT STANDARDS	
Lot area, net	1 acre
Lot width	150 feet
Lot depth	150 feet
Front yard setback	25 feet
Side yard setback	15 feet
Public street setback	20 feet
Rear yard setback	10 feet
Building height, maximum	35 feet
Lot coverage (percent, net)	70%
SOURCE: Section IV.2 Property Development Standards, Business Center District (Planned Community [PC] District Regulations) as contained within the Eastlake II General Development Plan/Business Center II Supplemental Sectional Planning Area Plan (City of Chula Vista 2005b)	

5.2.3 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to landform alteration/aesthetics would be significant if the project would:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
3. In non-urbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings (public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.
4. Create a new source of light or glare which would adversely affect day or nighttime views in the area.

5.2.4 Impacts

<u>Thresholds 1 and 2: Scenic Vista/Scenic Resources</u>

As shown in Figure 3-3, the project site is vacant and graded with no trees, rock outcroppings, or historic buildings. While there are several scenic vistas located throughout the City, the project site itself is not within a scenic vista nor contains any scenic resources. The project site does offer views of distant mountains and ridgelines as shown in Figure 5.2-1. Similar to the finding in the City's GPU FEIR, construction of the project within a surrounding residential area could affect the aesthetic character of the City, specifically within the Eastern Planning Area. The project would be a single-story

structure; the exterior would be muted colors of stucco, with earth-toned glass and metal accents as shown on Figure 5.2-2. The structure itself (size and elevations) would be consistent with the existing pattern of development as shown in Figure 5.2-3. Overall, as shown in Figure 5.2-3, due to the project design which complies with all regulatory requirements, along with the low building height would allow continued views of the distant mountain and ridgelines after construction.

As shown in Figure 5.2-4, the project site is located within the vicinity of two City-designated Scenic Highways, Otay Lakes Road and Hunte Parkway. The project would comply with all relevant provisions of the City's General Plan and relevant planning documents, including the Eastlake II GDP/Business Center II Supplemental SPA Plan. General Plan Policy LUT 13.4 requires discretionary projects adjacent to scenic routes to be subject to design review to ensure that proposed site design, architectural design, height, landscaping, signage, and utilities are consistent with the scenic quality of the surrounding area. While not adjacent to the scenic highways, the project has been designed to be consistent with surrounding uses.

Overall, due to location, design, and regulatory compliance, the project would have a less than significant impact to scenic vistas and scenic resources.

Threshold 3: Visual Character

As shown in the City GPU EIR Figure 5.2-1, no major landforms exist within or in proximity to the project site. However, the project site does provide views of the foothills and mountains along the City's edge (see Figure 5.2-1). Construction of the project could impact the surrounding visual character by changing the landscape of the project site in a way that could block views. However, the project would comply with all relevant General Plan objectives, including LUT 6 and LUT 11, which establish policies focused on the requirement for design review to ensure new development is compatible with the surrounding visual character and quality. As discussed under Thresholds 1 and 2, the project would be consistent with the existing pattern of development in the Eastlake II GDP/Business Center II. Additionally, the Eastlake II GDP/Business Center II Supplemental SPA Plan require specific landscape and architectural designs to be included as part of the project's design due to its proximity to residential uses. The project's setbacks and landscape plan have been designed to provide additional buffering along the project's residential interface consistent with the Eastlake II GDP/Business Center II Supplemental SPA Plan. Specifically, the project adheres to the Property Development Standards of the Eastlake II PC District Regulations, and as shown in Figure 3-6a of this EIR, heavy landscaping is proposed along the northern and eastern edges of the project site.

Map Source: SWA Architects

SOUTH ELEVATION

S1 S2 S3 S4 S5

STUCCO COLORS

SA4

STONE ACCENT

M1 M2

METAL PANEL COLORS

NORTHERLY ELEVATION

G1 G1A G2 G2A G3 G3A GF

GLASS AND STOREFRONT COLORS

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FIGURE 5.2-2

Project Materials and Colors

Map Source: SWA Architects

VIEW FROM NORTH EAST | 3

VIEW FROM NORTH WEST | 2

VIEW FROM SOUTH WEST | 1

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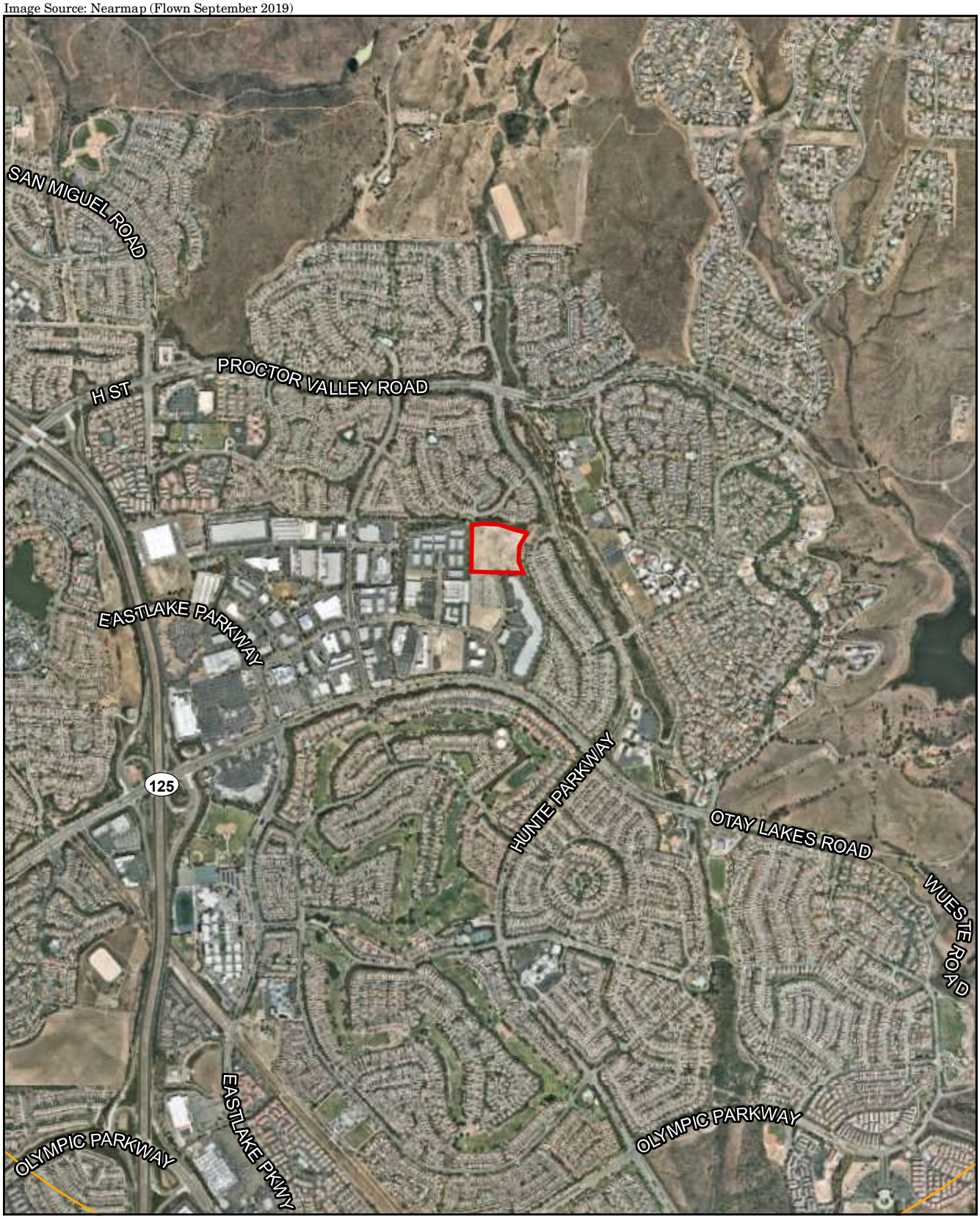
FIGURE 5.2-3

Project Renderings

Image Source: Nearmap (Flown September 2019)



0 Feet 2,000

Project Boundary

FIGURE 5.2-4
Project Site in Proximity to Scenic Highways

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In addition, as shown in Figure 5.2-5 (project site cross sections), the project would not be visible from surrounding residential neighborhoods. As shown in Section C-C, existing topography (the residential neighborhood to the east is approximately 18 feet below the grade of the project's ground floor) and proposed landscape would prevent residents to the east on River Rock Drive from having views into the project site. Additionally, lots adjacent to the west and east of the project site are approximately 50 feet and 60 feet below the grade, respectively, of the ground floor of the project (see Figure 5.2-2, Sections B-B and A-A).

As required by the City General Plan and CVMC, the project would need approval of a Design Review Permit showing project consistency with all relevant planning documents and General Plan objectives, including LUT 3, LUT 6, and LUT 11). As detailed in the Landscape Plans (see Figures 3-6a and 3-6b), landscaping along the project perimeter is composed of shrubs and screening trees which would serve to soften views of the project site from nearby areas. Therefore, the project would have a less than significant impact to scenic vistas.

Overall, the project would comply with applicable regulations governing scenic quality and would be designed to fit the visual character of the site and its surroundings. Application of these policies to the project's design would ensure the project's consistency with the existing community character of the area, and ensure surrounding views of local hillsides would not be impaired. Impacts related to visual quality would be less than significant.

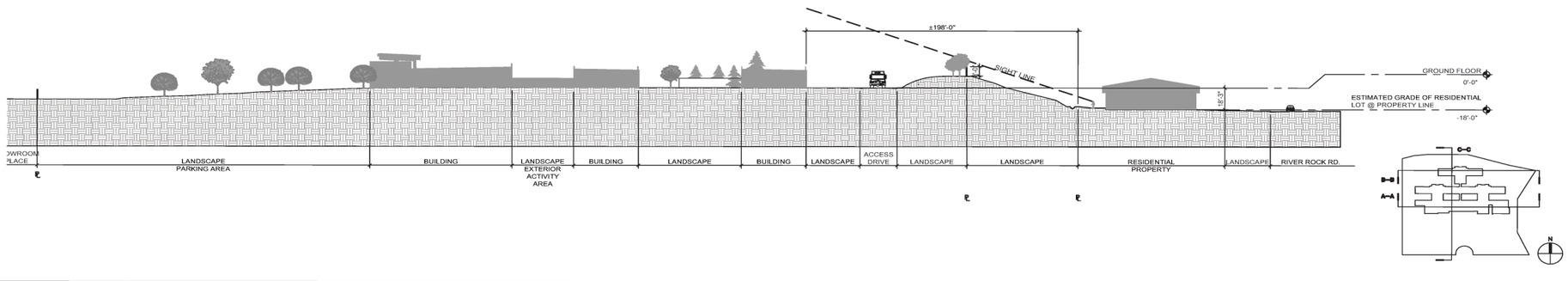
Threshold 4: Light and Glare

The project would include new lighting sources for both construction and operation. General construction practices would be limited, at a maximum, to the daytime hours of 7:00 a.m. and 10:00 p.m. Monday through Friday, and between the hours of 8:00 a.m. and 10:00 p.m. on the weekend.

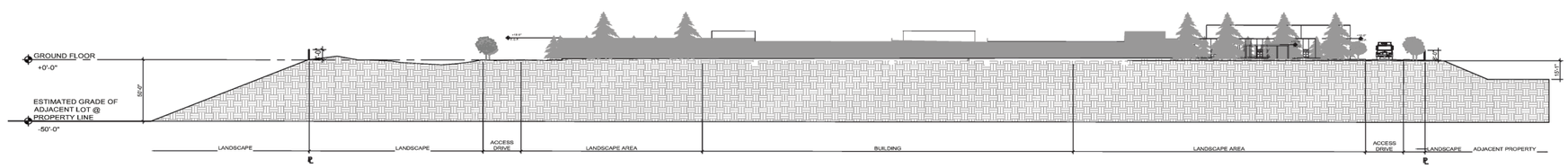
During construction, lighting for security purposes would be similar or less than the on-site lighting associated with the existing surrounding buildings. Safety lighting would be oriented downward with shielding and away from the project boundary to ensure lighting does not spill to the north and to the east, toward the residences located at lower elevations.

The project has been designed primarily of solid surfaces with windows at the entrance and to allow for natural light to enter patient rooms. Exterior glass and storefront colors would be muted grays, blues, and greens to provide low glare (see Figure 5.2-2) and would be absorptive of light or made of anti-reflective materials.

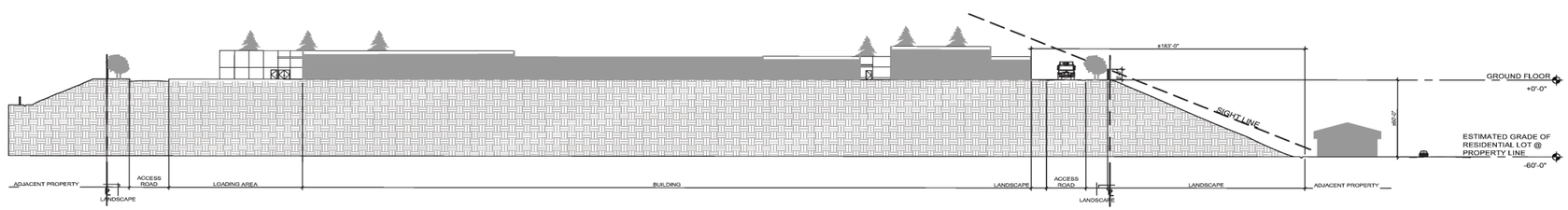
Map Source: SWA Architects



SITE SECTION C–C | 1"=40'–0" | C



SITE SECTION B–B | 1"=40'–0" | B



SITE SECTION A–A | 1"=40'–0" | A

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FIGURE 5.2-5

Site Sections

At nighttime with the inclusion of automatic, controlled by motion/ambient and light sensors, and minimum outdoor illumination, impacts from lighting and glare would be less than significant.

5.2.5 Level of Significance Prior to Mitigation

The project site does not support any trees, rock outcroppings, or historic buildings and is not located within any designated scenic roadways or vistas; however, it does offer views of surrounding mountains and ridge lines. The construction of the proposed hospital building would not alter the views from the project site. The project would fit the pattern and character of the existing business park and would be designed with earth tones and muted glass shades to ensure it does not interfere in views or create glares that would affect downslope residences. All potential impacts associated with landform alteration/aesthetics would be less than significant.

5.2.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.3 Air Quality

This section of the Environmental Impact Report (EIR) addresses potential short-term and long-term local and air quality impacts resulting from construction and operation of the Eastlake Behavioral Health Hospital project (project). Information presented in this section is based on the Air Quality Analysis for the Eastlake Behavioral Health Hospital (Air Quality Analysis; Appendix B) prepared by RECON Environmental, Inc. (2020a).

5.3.1 Existing Conditions

5.3.1.1 Geographic Setting/Climate

The state of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. The project is located in the city of Chula Vista (City), approximately 10 miles east of the Pacific Ocean and sits within the San Diego Air Basin (SDAB). The SDAB is surrounded by mountains to the north, east, and south. These mountains tend to restrict airflow and concentrate pollutants in the valleys and low-lying areas below.

The project area, like the rest of San Diego County, has a Mediterranean climate characterized by warm, dry summers and mild winters. The mean annual temperature for the project area is 62 degrees Fahrenheit (°F). The average annual precipitation is 12 inches, falling primarily from November to April. Winter low temperatures in the project area average about 41°F, and summer high temperatures average about 78°F. The average relative humidity is 69 percent and is based on the yearly average humidity at Lindbergh Field (Western Regional Climate Center 2020).

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone creates a temperature inversion layer (a layer in the atmosphere in which temperature increases with height) that acts as a lid to the vertical dispersion. Sunlight reacts with air pollutants to create ozone (see Section 5.3.1.2). Additional details relating to meteorological conditions and air quality measurements are included in Section 4.2 of Appendix B.

5.3.1.2 Air Pollutants of Key Concern

The United States Environmental Protection Agency (U.S. EPA) sets standards for six air pollutants of key concern known as “criteria pollutants.” These criteria pollutants are each common in outdoor environments across the United States and each pose a threat to human health. Criteria pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb).

Ozone

Ozone is the primary component of smog. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of NO_X and reactive organic gases (ROGs; also known as volatile organic chemicals [VOC] or reactive organic compounds [ROC]). These compounds react in the presence of sunlight to produce ozone, which is the primary air pollution problem in the SDAB. The adverse health effects associated with exposure to ozone pertain primarily to the respiratory system. Scientific evidence indicates that ambient levels of ozone affect not only sensitive receptors, such as asthma sufferers and children, but healthy adults as well. Exposure to ozone has been found to significantly alter lung functions by increasing respiratory rates and pulmonary resistance, decreasing tidal volumes (the amount of air inhaled and exhaled), and impairing respiratory mechanics. Symptomatic responses include throat dryness, chest tightness, headache, and nausea. About half of smog-forming emissions come from automobiles (https://www.epa.gov/ground-level-ozone-pollution).

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas. CO is released when something is burned. The greatest sources of CO to outdoor air are cars, trucks, and other vehicles or machinery that burn fossil fuels. CO enters the bloodstream through the lungs by combining with hemoglobin, which normally supplies oxygen to the cells. However, CO combines with hemoglobin much more readily than oxygen does, resulting in a drastic reduction in the amount of oxygen available to the cells. Adverse health effects associated with exposure to CO concentrations include such symptoms as dizziness, headaches, and fatigue. CO exposure is especially harmful to individuals who suffer from cardiovascular and respiratory diseases (https://www.epa.gov/indoor-air-quality-iaq/carbon-monoxides-impact-indoor-air-quality).

Small-scale, localized concentrations of CO above the federal and state Ambient Air Quality Standards may occur at intersections with stagnation points such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as “CO hotspots” and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is one of a group of highly reactive gases known as oxides of nitrogen or nitrogen oxides (NOx). Nitrogen dioxide is a brownish, highly reactive gas that is present in all urban environments. NO_2 primarily gets in the air from the burning of fuel. NO_2 forms from emissions from cars, trucks and buses, power plants, and off-road equipment. The major human-made sources of NO_2 are combustion devices, such as

boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Inhalation is the most common route of exposure to NO_2. Breathing air with a high concentration of NO_2 can irritate airways in the human respiratory system. Such exposures over short periods can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing). The severity of the adverse health effects depends primarily on the concentration inhaled rather than the duration of exposure. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections (https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects).

Sulfur Dioxide

Sulfur dioxide (SO_2) is a combustion product, with the primary source being power plants and heavy industries that use coal or oil as fuel. SO_2 is also a product of diesel engine combustion. The health effects of SO_2 include lung disease and breathing problems for people with asthma (https://www.epa.gov/so2-pollution/sulfur-dioxide-basics#what is so2).

Particulate Matter

Particulate matter (PM) is a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope. Particle pollution includes:

- PM_{10}: inhalable particles, with diameters that are generally 10 micrometers and smaller; and
- $PM_{2.5}$: fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller.

PM_{10} is particulate matter with an aerodynamic diameter of 10 microns or less. Ten microns is about one-seventh of the diameter of a human hair. Under typical conditions (i.e., no wildfires) particles classified under the PM_{10} category are mainly emitted directly from activities that disturb the soil including travel on roads and construction, mining, or agricultural operations. Other sources include windblown dust, salts, brake dust, and tire wear.

Airborne, inhalable particles with aerodynamic diameter of 2.5 microns or less have been recognized as an air quality concern requiring regular monitoring and pose the greatest risk to health. Federal regulations required that $PM_{2.5}$ monitoring begin January 1, 1999. Similar to PM_{10}, $PM_{2.5}$ is also inhaled into the lungs and causes serious health problems.

Health studies have shown a significant association between exposure to particulate matter and premature death in people with heart or lung diseases. Other important effects include aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and irregular heartbeat (https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm). $PM_{2.5}$ are the main cause of reduced visibility (haze) in parts of the United States. Particles can be carried over long distances by wind and then settle on ground or water. Depending on their chemical composition, the effects of this settling may include making lakes and streams acidic, changing the nutrient balance in coastal waters and large river basins, depleting the nutrients in soil, damaging sensitive forests and farm crops, affecting the diversity of ecosystems (https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm).

Lead

Lead is a metal found naturally in the environment as well as in manufactured products. At high levels of exposure, lead can have detrimental effects on the central nervous system. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase out of leaded gasoline, metal processing is currently the primary source of lead emissions.

5.3.1.3 Existing Air Quality

The SDAB is a designated non-attainment area for the federal and state ozone standard, and is also designated a non-attainment area for state PM_{10} and $PM_{2.5}$ standards.

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the California Air Resources Board (CARB) or federal standards set by the U.S. EPA. The San Diego Air Pollution Control District (SDAPCD) maintains nine air quality monitoring stations located throughout the greater San Diego metropolitan region. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The Chula Vista monitoring station located at 80 East J Street, approximately 6 miles west of the project site, is the nearest station to the project site. The monitoring station measures ozone, NO_2, PM_{10}, and $PM_{2.5}$. Table 5.3-1 provides a summary of measurements collected at the monitoring station for the years 2014 through 2018.

TABLE 5.3-1
SUMMARY OF AIR QUALITY MEASUREMENTS RECORDED AT THE CHULA VISTA AIR QUALITY MONITORING STATION

Pollutant/Standard	2014	2015	2016	2017	2018
Ozone					
Federal Max 8-hr (ppm)	0.072	0.066	0.068	0.074	0.064
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	1	0	0	1	0
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	0	0	0	0	0
State Max 8-hr (ppm)	0.072	0.067	0.069	0.075	0.065
Days State 8-hour Standard Exceeded (0.07 ppm)	1	0	0	1	0
Max. 1-hr (ppm)	0.093	0.088	0.073	0.085	0.076
Days State 1-hour Standard Exceeded (0.09 ppm)	0	0	0	0	0
Nitrogen Dioxide					
Max 1-hr (ppm)	0.055	0.049	0.054	0.057	0.052
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0	0	0
Annual Average (ppm)	0.011	0.010	0.009	--	0.009
PM_{10}*					
Federal Max. Daily ($\mu g/m^3$)	38.0	46.0	48.0	59.0	45.0
Measured Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 $\mu g/m^3$)	0.0	0.0	0.0	0.0	0.0
Federal Annual Average ($\mu g/m^3$)	22.9	19.7	21.6	21.4	20.7
State Max. Daily ($\mu g/m^3$)	39.0	45.0	48.0	61.0	45.0
Measured Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	0	0	0	1	0
Calculated Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	0.0	0.0	0.0	6.5	--
State Annual Average ($\mu g/m^3$)	23.4	19.8	21.8	21.7	--
$PM_{2.5}$*					
Federal Max. Daily ($\mu g/m^3$)	26.5	33.5	23.9	42.7	41.9
Measured Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	0	0	0	1	1
Calculated Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	0.0	0.0	0.0	--	2.7
Federal Annual Average ($\mu g/m^3$)	9.2	8.3	8.7	--	9.9
State Max. Daily ($\mu g/m^3$)	26.5	33.5	23.9	42.7	41.9
State Annual Average ($\mu g/m^3$)	9.3	8.4	8.7	--	10.0

SOURCE: CARB 2020 (see Appendix B).
ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; -- = Not available.
* Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

5.3.2 Regulatory Setting

5.3.2.1 Federal

Federal Clean Air Act

Ambient Air Quality Standards represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 USC 7409], the U.S. EPA developed National Ambient Air Quality Standards (NAAQS) for the six criteria pollutants discussed in Section 5.3.1.2. The CAA requires periodic review of the science upon which the standards are based and the standards

themselves. The NAAQS are presented in Table 5.3-2 (California Air Resources Board [CARB] 2016). The SDAB is a non-attainment area for the federal state ozone standard.

5.3.2.2 State

California Air Resource Board

The U.S. EPA allows states the option to develop different (stricter) standards. CARB has developed the California Ambient Air Quality Standards (CAAQS) and generally has set more stringent limits on the criteria pollutants. The CAAQS are presented in Table 5.3-2, along side the NAAQS, for comparative purposes.

In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 5.3-2). Similar to the federal CAA, the state classifies specific geographic areas as either “attainment” or “nonattainment” areas for each pollutant based on the comparison of measured data with the CAAQS. The SDAB is a nonattainment area for the state ozone standards, the state PM_{10} standard, and the state $PM_{2.5}$ standard.

Toxic Air Contaminants

The public’s exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel-exhaust particulate matter emissions have been established as TACs. The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act requires stationary sources to report the types and quantities of certain substances routinely released into the air.

The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

TABLE 5.3-2
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10})[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m^3)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chroma-tography			

See footnotes on next page.

TABLE 5.3-2
AMBIENT AIR QUALITY STANDARDS
(continued)

ppm = parts per million; ppb = parts per billion; μg/m^3 = micrograms per cubic meter; – = not applicable.

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon 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.

[4] Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

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

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

[7] Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

[8] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m^3 to 12.0 μg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m^3, as was the annual secondary standards of 15 μg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of ppb. California standards are in units of ppm. To directly compare the national standards 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.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] The Air Resources Board has identified lead and vinyl chloride as ‘toxic air contaminants’ 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.

[13] 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^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[14] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: CARB 2016 (see Appendix B).

The Children's Environmental Health Protection Act, California Senate Bill 25 focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the SDAPCD's Regulation XII. Of particular concern statewide are diesel-exhaust particulate matter emissions. Diesel-exhaust particulate matter was established as a TAC in 1998, and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of diesel particulate matter (DPM) as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (CARB 2000). A stated goal of the plan is to reduce the statewide cancer risk arising from exposure to DPM by 85 percent by 2020.

In April 2005, CARB published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of diesel particulate and other air-toxic emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to DPM will continue to decline.

State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting,

etc.), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the *Federal Register*. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

The SDAPCD is responsible for preparing and implementing the portion of the SIP applicable to the SDAB. The air pollution control district adopts rules, regulations, and programs to attain federal and state air quality standards, and appropriates money (including permit fees) to achieve these objectives.

5.3.2.3 Local

San Diego Air Pollution Control District

The SDAPCD is the agency that regulates air quality in the SDAB. The SDAPCD prepared the Regional Air Quality Standards (RAQS) in response to the requirements set forth in the California CAA Assembly Bill (AB) 2595 (SDAPCD 1992, 2016) and the federal CAA. Motor vehicles are San Diego County's leading source of air pollution (SDAPCD 2016). In addition to these sources, other mobile sources include construction equipment, trains, and airplanes. Reducing mobile source emissions requires the technological improvement of existing mobile sources and the examination of future mobile sources, such as those associated with new or modification projects (e.g., retrofitting older vehicles with cleaner emission technologies). In addition to mobile sources, stationary sources also contribute to air pollution in the SDAB. Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the local air pollution control or management district, in this case the SDAPCD.

The SDAPCD is responsible for preparing and implementing the RAQS. As part of the RAQS, the SDAPCD developed Transportation Control Measures (TCMs) for the air quality plan prepared by the San Diego Association of Governments (SANDAG) in accordance with AB 2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The RAQS and TCM set forth the steps needed to accomplish attainment of NAAQS and CAAQS. The required triennial updates of the RAQS and corresponding TCM were adopted in 1995, 1998, 2001, 2004, 2009, and 2016. The SDAPCD published a workshop draft of the 2020 RAQS in July 2020 and has solicited feedback through public meetings.

The SDAPCD has also established a set of rules and regulations initially adopted on January 1, 1969, and periodically reviewed and updated. These rules and regulations are available for review on the agency's website.

City of Chula Vista General Plan

The Environmental Element of the City's General Plan contains policies that focus on the improvement of air quality. Objectives and policies relevant to the project include the following:

OBJECTIVE E 6

Improve local air quality and reduce greenhouse gas emissions by minimizing the release of air pollutants and toxic air contaminants and limiting the exposure of people to such pollutants.

Policy E 6.1: Encourage compact development featuring a mix of uses that locate residential areas within reasonable walking distance to jobs, services, and transit.

Policy E 6.2: Promote and facilitate transit system improvements in order to increase transit use and reduce dependency on the automobile.

Policy E 6.3: Facilitate the use of alternative fuel and low- and zero-emission vehicles and equipment in the community.

Policy E 6.4: Do not site new or re-powered fossil-fueled baseload or peaking-type Electric Generating Facilities and other major toxic emitters within 1,000 feet of sensitive receptors, or site sensitive receptors within 1,000 feet of such facilities.

Policy E 6.5: Ensure Electrical Generating Facilities incorporate cleaner fuel sources and least polluting technologies in order to help transition the City to a less fossil fuel-dependent future, while meeting Chula Vista's energy demand.

Policy E 6.6: Explore incentives to promote voluntary air pollutant reductions, including incentives for developers who go above and beyond applicable requirements and for facilities and operations that are not otherwise regulated.

Policy E 6.7: Encourage innovative energy conservation practices and air quality improvements in new development and redevelopment projects consistent with the City's Air Quality Improvement Plan Guidelines or its equivalent, pursuant to the City's Growth Management Program.

Policy E 6.8: Encourage climate resilient design techniques in new buildings and infrastructure to reduce future risks from climate change-related impacts such as wildfires, extreme heat, and flooding.

Policy E 6.9: Discourage the use of landscaping equipment powered by two-stroke gasoline engines within the City and promote less-polluting alternatives to their use.

Policy E 6.10: The siting of new sensitive receivers within 500 feet of highways resulting from development or redevelopment projects shall require the preparation of a health risk assessment as part of the CEQA review of the project. Attendant health risks identified in the Health Risk Assessment (HRA) shall be feasibly mitigated to the maximum extent practicable, in accordance with the California Environmental Quality Act (CEQA), in order to help ensure that applicable federal and state standards are not exceeded.

Policy E 6.11: Develop strategies to minimize CO hot spots that address all modes of transportation.

Policy E 6.12: Promote clean fuel sources that help reduce the exposure of sensitive uses to pollutants.

Policy E 6.13: Encourage programs and infrastructure to increase the availability and usage of energy-efficient vehicles, such as hybrid electric vehicles, electric vehicles, or those that run on alternative fuels.

Policy E 6.14: Transition the City fleet to 100% “clean” vehicles by integrating hybrid and alternative fuel vehicles as current municipal fleet vehicles are replaced.

Policy E 6.15: Site industries and other stationary emitters in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals, and other land uses where people congregate, and disadvantaged populations.

Policy E 6.16: Encourage the use of bicycles through support of bike share opportunities, community bike programs, and the provision of bicycle parking opportunities such as bike racks and bike lockers.

5.3.3 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to air quality would be significant if the project would:

1. Conflict with or obstruct the implementation of the applicable air quality plan;
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state AAQS (including the release of emissions which exceed quantitative thresholds for ozone precursors);
4. Expose sensitive receptors to substantial pollutant concentration (including air toxics); or

5. Create objectionable odors affecting a substantial number of people.

As discussed in the Air Quality Analysis (see Appendix B), the City evaluates project emissions based on the quantitative emission significance thresholds established by the South Coast Air Quality Management District (SCAQMD).

In addition to a comparison with the quantitative emission significance thresholds, the project was evaluated for local air quality impacts, such as consistency with assumptions of the RAQS and potential odors impacts.

5.3.4 Impacts

Threshold 1: Plan Consistency

The RAQS is the applicable regional air quality plan that sets forth the SDAPCD's strategies for achieving the NAAQS and CAAQS. The SDAB is a designated non-attainment area for the federal and state ozone standard. Accordingly, the RAQS was developed to identify feasible emission control measures and provide expeditious progress toward attaining the standards for ozone. The two pollutants addressed in the RAQS are ROG and oxides of nitrogen (NO_X), which are precursors to the formation of ozone. Projected increases in motor vehicle usage, population, and growth create challenges in controlling emissions and by extension to maintaining and improving air quality. The RAQS, in conjunction with the TCM, were most recently adopted in 2016 as the air quality plan for the region.

The growth projections used by the SDAPCD to develop the RAQS emissions budgets are based on the population, vehicle trends, and land use plans developed in general plans and used by SANDAG in the development of the regional transportation plans and sustainable communities strategy. As such, projects that propose development that is consistent with the growth anticipated by SANDAG's growth projections and/or the General Plan would not conflict with the RAQS. In the event that a project would propose development that is less dense than anticipated by the growth projections, the project would likewise be consistent with the RAQS. In the event a project proposes development that is greater than anticipated in the growth projections, further analysis would be warranted to determine if the project would exceed the growth projections used in the RAQS for the specific subregional area.

The project site is within the approved Business Center II Supplemental Sectional Plan Area (SPA), which is part of the larger Eastlake II General Plan Development. The project would be consistent with the City's General Plan, Title 19 – Planning and Zoning of the City's Municipal Code, and the Eastlake II SPA Plan, Planned Community District regulations. These regulations allow the placement of a medical facility with approval of a Conditional Use Permit. No change to land use designation or zoning is proposed that would increase residential uses or density within the City. Thus, the project would be

consistent with the growth projections anticipated by SANDAG. The project would, therefore, not result in an increase in emissions that are not already accounted for in the RAQS. Thus, the project would not obstruct or conflict with implementation of the RAQS. Impacts would be less than significant.

Threshold 2: Air Quality Violation

Project air emissions were calculated using California Emissions Estimator Model (CalEEMod) 2016.3.2 (California Air Pollution Control Officers Association [CAPCOA] 2017).

Construction Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include:

- Fugitive dust from grading activities;
- Construction equipment exhaust;
- Construction-related trips by workers, delivery trucks, and material-hauling trucks; and
- Construction-related power consumption.

Construction emissions were modeled with construction activities beginning in 2021 and lasting for approximately 16 months. Primary inputs are the numbers of each piece of equipment and the length of each construction stage. Specific construction phasing and equipment parameters are not available at this time. However, CalEEMod can estimate the required construction equipment when project-specific information is unavailable. The construction equipment estimates are based on surveys, performed by the SCAQMD and the Sacramento Metropolitan Air Quality Management District, of typical construction projects which provide a basis for scaling equipment needs and schedule with a project's size. Air emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters. Project grading would require the export of approximately 51,000 cubic yards of soil.

Table 5.3-3 shows the maximum daily construction emission levels for each criteria pollutant; for complete modeling details and outputs refer to the Air Quality Analysis (see Appendix B).

TABLE 5.3-3
SUMMARY OF WORST-CASE CONSTRUCTION EMISSIONS
(pounds per day)

Construction	Pollutant					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Site Preparation	4	41	22	<1	20	12
Grading	5	74	38	<1	12	6
Building Construction/Architectural Coatings	10	23	22	<1	2	1
Paving	2	11	15	<1	1	1
Maximum Daily Emissions	**10**	**74**	**38**	**<1**	**20**	**12**
Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
SOURCE: See Appendix B.						

As shown in Table 5.3-3, maximum daily construction emissions associated with the project are projected to be less than the applicable thresholds for all criteria pollutants. Therefore, as project construction emissions would be below these limits, project construction would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Impacts would be less than significant.

Operation Emissions

Mobile source emissions would originate from traffic generated by the project. Mobile source operational emissions are based on the trip rate, trip length for each land use type, and size. According to the project traffic report, the project would generate 2,400 average daily vehicle trips with an average one-way trip length of 9.6 miles (Linscott, Law & Greenspan [LLG] 2020). Default vehicle emission factors for the first operational year of 2022 were used.

Area source emissions would result from the use of natural gas, consumer products, as well as applying architectural coatings and landscaping activities. Area source emissions were modeled based on standard CalEEMod assumptions associated with the project size.

As discussed in the Air Quality Analysis (see Appendix B), the project would install and operate an 800 kilowatt Caterpillar C27 Generator Set emergency generator. The service life and field reliability of the emergency generator is largely dependent on regular maintenance. Maintenance may include run-tests. As discussed in the Air Quality Analysis, emissions due to testing were calculated using default emission factors from CalEEMod, as well as NO_X and CO emission factors from manufacturer source tests assuming testing involves operation at full load for up to 30 minutes of operation per day.

Table 5.3-4 shows the maximum daily operational emission levels for each criteria pollutant; for complete modeling details and outputs refer to the Air Quality Analysis (see Appendix B).

TABLE 5.3-4
SUMMARY OF PROJECT OPERATIONAL EMISSIONS
(pounds per day)

Source	Pollutant					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Sources	2	<1	<1	<1	<1	<1
Generator[1]	1	7	<1	<1	<1	<1
Energy Sources	<1	1	1	<1	<1	<1
Mobile Sources	4	16	46	<1	14	4
TOTAL	**7**	**25**	**47**	**<1**	**14**	**4**
Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*

SOURCE: See Appendix B.
NOTE: Totals may vary due to independent rounding.
[1] Manufacturer source tests emission factors are 6.2 grams per horsepower hour (g/hp-hr) NO_X, and 0.3 g/hp-hr CO.

As shown in Table 5.3-4, maximum daily operational emissions associated with the project are projected to be less than the applicable thresholds for all criteria pollutants. Therefore, as project operational emissions would be below these limits, project operation would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Impacts would be less than significant.

Threshold 3: Criteria Pollutants

As discussed above, the region is classified as attainment for all criteria pollutants except ozone, PM_{10}, and $PM_{2.5}$. The SDAB is a non-attainment area for the 8-hour federal and state ozone standards, and a non-attainment area for 1-hour state ozone standards. Ozone is not emitted directly, but is a result of atmospheric activity on precursors. NO_X and ROG are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone.

As shown in Tables 5.3-3 and 5.3-4, emissions of ozone precursors (ROG and NO_X), PM_{10}, and $PM_{2.5}$ from construction and operation would be below the applicable thresholds. Therefore, the project would not generate emissions in quantities that would result in an exceedance of the NAQQS or CAAQS for ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

Threshold 4: Sensitive Receptors

Sensitive land uses include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities. Single-family residential uses are located north and southeast of the project site. Additionally, Eastlake Middle School, an assisted living facility, and a recreation center are located east of Hunte Parkway.

Diesel Particulate Matter – Construction

Construction of the project and associated infrastructure would result in short-term diesel exhaust emissions from on-site heavy-duty equipment. Construction of the project would result in the generation of diesel-exhaust DPM emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities and on-road diesel equipment used to bring materials to and from the project site.

As discussed in the Air Quality Analysis (see Appendix B), project construction would result in maximum annual emissions of 0.1097 tons of PM_{10} exhaust, which, would result in maximum 1-hour ground-level DPM concentrations of 0.0648 $\mu g/m^3$. The excess cancer risk would be 1.7 in a million and the non-carcinogenic hazard quotient would be 0.0010. As the project is anticipated to result in a cancer risk that is less than 10 in 1 million and is anticipated to result in a hazard quotient less than 1, all health risks are considered less than significant. For complete discussion of modeling details and outputs, refer to the Air Quality Analysis (see Appendix B).

Diesel Particulate Matter – Freeway and Heavily Traveled Roadways

As discussed in Section 5.3.1.3, the CARB handbook indicates that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day should be avoided when possible. The nearest freeway is located almost one mile west of the project site. The project site is not located within 500 feet of any heavily traveled roadways that carry more than 100,000 vehicles per day.

Carbon Monoxide Hot Spots

Localized CO concentration is a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and meteorological conditions. The Sacramento Metropolitan Air Quality Management District developed a screening threshold in 2011, which states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis. Based on the Transportation Impact Analysis prepared for the project, the traffic volumes at all analyzed intersections would be significantly less than 31,600 vehicles per hour (LLG 2020). Therefore, the project is not anticipated to result in a CO hot spot.

Overall, impacts related to sensitive receptors would be less than significant.

<u>Threshold 5: Odors</u>

The project does not include heavy industrial or agricultural uses that are typically associated with odor complaints. During construction, diesel equipment may generate some nuisance odors. Single-family residential uses are located north and southeast of

the project site; however, exposure to odors associated with project construction would be short term and temporary in nature. Additionally, CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation outlined above would reduce construction exhaust emissions, which would also reduce construction-related odors. Impacts would be less than significant. Once operational, the project would not be a source of odors.

5.3.5 Level of Significance Prior to Mitigation

As the project would be consistent with the General Plan land use designation and would not result in growth in population beyond that anticipated by the General Plan and SANDAG, the project would not result in an increase in emissions that are not already accounted for in the RAQS. Thus, the project would not interfere with implementation of the RAQS or other air quality plans; impacts would be less than significant.

As shown in Tables 5.3-3 and 5.3-4, project construction and operation would not exceed the applicable regional emissions thresholds. These thresholds are designed to provide limits below which project emissions would not significantly change regional air quality. Therefore, as project emissions would be well below these limits, the project would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations. Impacts would be less than significant.

As shown in Tables 5.3-3 and 5.3-4, emissions of ozone precursors (ROG and NO_X), PM_{10}, and $PM_{2.5}$ from construction and operation would be below the applicable thresholds. Therefore, the project would not generate emissions in quantities that would result in an exceedance of the NAQQS or CAAQS for ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

There would be no harmful concentrations of CO and localized air quality emission would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations. Impacts would be less than significant.

The project would not create or expose sensitive receivers to odors. No impacts would occur.

5.3.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.4 Energy

This section of the Environmental Impact Report (EIR) evaluates potential impacts related to energy conservation due to implementation of the Eastlake Behavioral Health Hospital project (project). The discussion includes modeling of the project's construction equipment fuel use, transportation-related fuel use, and building-related energy use (electricity and natural gas). The energy calculations are included in Appendix C.

5.4.1 Existing Conditions

5.4.1.1 Utility Provider

San Diego Gas & Electric (SDG&E) currently provides natural gas and electricity transmission and distribution infrastructure in San Diego County. SDG&E is regulated by the California Public Utilities Commission (CPUC), which is responsible for making sure that California utilities' customers have safe and reliable utility service. The program's energy needs would be supplied through the various combinations of energy resources available within the program areas, and the analysis in this section takes into account the anticipated future SDG&E energy resource use patterns.

Senate Bill 1078 (SB 1078) established the California Renewables Portfolio Standard (RPS) Program, which requires SDG&E and other statewide energy utility providers to achieve a 33 percent renewable energy mix by 2020. Table 5.4-1 summarizes the SDG&E power mix as of 2016. As shown, SDG&E used biomass, solar, and wind sources, and obtained 43 percent of its energy from renewable resources in 2018 (SDG&E 2019).

TABLE 5.4-1
SDG&E 2018 POWER MIX

Energy Source	Power Mix (%)
Renewables	43
Biomass & Biowaste	*2*
Geothermal	*0*
Eligible Hydroelectric	*0*
Solar	*20*
Wind	*21*
Coal	0
Large Hydroelectric	0
Natural Gas	29
Nuclear	0
Other	<1
Unspecified Sources*	27

SOURCE: SDG&E 2019.
*Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

5.4.2 Regulatory Setting

5.4.2.1 State

California Energy Efficiency Action Plan

In September 2008, the CPUC adopted the Long Term Energy Efficiency Strategic Plan, which established the first integrated framework of goals and strategies for saving energy, covering government, utility, and private sector actions. Subsequently Assembly Bill (AB) 758 in 2010 established a requirement for regular updates to the plan and SB 350 in 2015 identified a plan goal of achieving a doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030 (relative to 2015 base year). Since 2008, the plan has been implemented through focused action plans such as the Zero Net Energy Commercial Building Action Plan in June 2011, the Research and Technology Action Plan in August 2013, the Lighting Action Plan in November 2013, the Codes and Standards Action Plan in March 2014, and the New Residential Zero Net Energy Action Plan in June 2015.

The first comprehensive update to the plan, the 2019 California Energy Efficiency Action Plan, was adopted in November 2019 (California Energy Commission [CEC] 2019). In response to new direction from the legislature, the focus of the new plan has been expanded. Rather than being focused on traditional end-use energy efficiency, the new plan also includes measures aimed at building decarbonization.

Sustainable Communities Strategy

SB 375, the 2008 Sustainable Communities and Climate Protection Act, provides for a new planning process that coordinates land use planning, regional transportation plans, and funding priorities to help California meet the greenhouse gas (GHG) reduction goals established in AB 32. SB 375 requires regional transportation plans developed by metropolitan planning organizations (MPOs) to incorporate a Sustainable Communities Strategy in their plans. The goal of the Sustainable Communities Strategy is to reduce regional vehicle miles traveled (VMT) through land use planning and consequent transportation patterns. SB 375 also includes provisions for streamlined California Environmental Quality Act (CEQA) review for some infill projects, such as transit-oriented development.

Renewables Portfolio Standard

The RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by Executive Orders S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, Senate Bill 2 (1X) (SBX1 2) codified California's 33

percent RPS goal. In September 2015, the California Legislature passed SB 350, which increases California's renewable energy mix goal to 50 percent by year 2030. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.

California Code of Regulations, Title 24 – California Building Code

The California Code of Regulations (CCR), Title 24, is referred to as the California Building Code (CBC). It consists of a compilation of several distinct standards and codes related to building construction including, plumbing, electrical, interior acoustics, energy efficiency, handicap accessibility and so on.

TITLE 24, PART 6 – ENERGY EFFICIENCY STANDARDS

The CCR, Title 24, Part 6 is the Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC.

The current version of the Energy Code, known as the 2019 Title 24, or the 2016 Energy Code, became effective January 1, 2020. The 2019 Energy Code includes provisions for smart residential photovoltaic (PV) systems, updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The 2019 Energy Code aims to reduce energy use in new homes by requiring that all new homes include individual or community solar PV systems or community shared battery storage system that achieves equivalent time-dependent value energy use reduction. Accounting for solar PV requirements, the CEC's preliminary estimates indicate that homes built consistent with the 2019 Energy Code will result in 53 percent less energy use than those built under previous 2016 standards.

TITLE 24, PART 11 – CALIFORNIA GREEN BUILDING STANDARDS CODE

The California Green Building Standards Code, referred to as CalGreen, was added to Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The 2019 CalGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum

mandatory Green Building Standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- Outdoor water use requirements as outlined in Model Water Efficient Landscape Ordinance emergency standards;
- 20 percent mandatory reduction in indoor water use relative to specified baseline levels;
- 65 percent construction/demolition waste diverted from landfills;
- Infrastructure requirements for electric vehicle charging stations;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring and particleboards.

5.4.2.2 Regional

The San Diego Association of Governments (SANDAG) is the council of governments and transportation planning agency for San Diego County and the 18 cities located within its territory.

Regional Energy Strategy

The Regional Energy Strategy (RES) establishes goals for the San Diego region to be more energy efficient, increase use of renewable energy sources, and enhance the region's energy infrastructure in order to meet the growing energy demand. The RES serves as an energy policy guide to support decision-making by SANDAG and its member agencies as the region strives to meet the energy needs of a growing population, housing stock, and number of workers while maintaining and enhancing regional quality of life and economic stability.

Sustainable Communities Strategy – San Diego Forward

The California Air Resources Board (CARB) is required to review and update regional SB 375 targets at least every eight years. Following the CARB Board Hearing on March 22, 2018, the regional vehicle-use reduction targets from automobiles and light duty trucks are:

- 15-percent reduction from the 2005 per capita amount by 2020
- 19-percent reduction from the 2005 per capita amount by 2035

SANDAG is responsible for cooperative regional planning and furthering an efficient multi-modal transportation system countywide. As the MPO and Regional Transportation Planning Agency, SANDAG supports freeway construction projects, regional and local road improvements, train and bus transportation, railroad crossings, call boxes, ridesharing, congestion management efforts, and long-term planning studies. To achieve the regional vehicle-use emission reduction targets, SANDAG developed and adopted the San Diego Forward in October 2015 and updated it in October 2019. The strategy set forth in San Diego Forward is to "focus housing and job growth in the urbanized areas where there is existing and planned infrastructure, protect sensitive habitat and open space, invest in a network that gives residents and workers transportation options that reduce GHG emissions, promote equity for all, and implement the plan through incentives and collaboration" (SANDAG 2015).

5.4.2.3 Local

City of Chula Vista General Plan

The Environmental Element of the City's General Plan contains policies that focus on energy conservation and renewable energy. Objectives and policies relevant to the project include the following:

OBJECTIVE E 7

Promote energy conservation through the efficient use of energy and through the development of local, non-fossil fuel-based renewable sources of energy.

Policy E 7.1: Promote development of regulations and building design standards that maximize energy efficiency through appropriate site and building design and through the use of energy-efficient materials, equipment, and appliances.

Policy E 7.2: Encourage and support the local research, development, generation, and use of non-fossil, fuel-based renewable sources of energy, including wind and solar resources, that meet local energy needs in an environmentally sensitive manner and reduce dependence on imported energy.

Policy E 7.3: Develop and provide pertinent information about the benefits of energy conservation and available energy conservation incentive programs to all segments of the community.

Policy E 7.4: Pursue and encourage the expansion of local energy conservation, energy efficiency, and related incentive programs.

Policy E 7.5: Pursue 40% City-wide electricity supply from clean, renewable resources by 2017.

Policy E.7.6: Encourage the construction and operation of green buildings, considering such TM programs as the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

Policy E 7.7: Support tree planting programs that will be implemented to reduce energy needs.

Policy E 7.8: Ensure that residential and non-residential construction complies with all applicable City of Chula Vista energy efficiency measures and other green building measures that are in effect at the time of discretionary permit review and approval or building permit issuance, whichever is applicable.

City of Chula Vista Energy Strategy and Action Plan

In May 2001, the City of Chula Vista (City) adopted its Energy Strategy and Action Plan (Energy Plan). The Energy Plan included implementation measures to support eight overarching strategies.

1. Monitor the energy market and legal restrictions and be prepared to enter into an Electrical Services Contract with an Energy Services Provider (ESP) or power generator as allowed by law.
2. Pursue Distributed Generation and “district” generation opportunities for specific facilities and technologies.
3. Partner with a third-party to build and operate power generation facilities.
4. Develop an emissions offsets program based on mobile sources.
5. Take initial steps to more specifically assess the costs and benefits of forming and operating as a Municipal Utility to own/operate all or portions of the local distribution system.
6. Become a municipal “aggregator” and acquire electricity at negotiated rates for City facilities and participating residents/business customers.
7. Continue/expand energy conservation projects for City facilities and promote energy efficient and renewable energy programs for businesses and residents.
8. Develop and implement a legislative strategy that facilitates the City’s overall Energy plan.

City of Chula Vista Clean Transportation Energy Roadmap

In November 2012, the City adopted its Energy Roadmap Program. The Energy Roadmap Program included implementation measures to support several strategies including greening the City vehicle fleet; promoting commuter benefits to City

employees, leveraging planning and development authority, and marketing programs and rebates to residents, schools, and local businesses.

5.4.3 Impact Significance Thresholds

Consistent with Appendix G of the CEQA Guidelines, impacts related to energy would be significant if the project would:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

5.4.4 Impacts

<u>Threshold 1: Consumption of Energy Resources</u>

The analysis of energy resources requires a discussion of construction, transportation, and operational energy use.

Construction-Related Energy Use

During construction, energy use would occur in two general categories: fuel use from vehicles used by workers commuting to and from the construction site, and fuel use by vehicles and other equipment to conduct construction activities. The construction worker, equipment, hauling, and delivery trips required for the project were determined as a part of the GHG modeling prepared for the project (see Appendix F).

Fuel consumption associated with construction equipment was calculated using the equipment quantities and construction length calculated in the GHG modeling and fuel-consumption rates from the California Air Resources Board (CARB) OFF-ROAD 2017 model (see Appendix C). Fuel consumption associated with worker, hauling, and delivery vehicle trips were calculated using the CARB EMFAC2017 fuel consumption rates (see Appendix C). Based on the modelling, construction equipment and vehicle trips and on-site fuel consumption that would occur as a result of project construction is summarized in Tables 5.4-2 and 5.4-3, respectively.

TABLE 5.4-2
CONSTRUCTION VEHICLE TRIPS – FUEL CONSUMPTION

Trip Type	Total Vehicle Miles Traveled	Total Fuel Consumption (gallons)	
		Gasoline	Diesel
Workers	332,424	11,559	71
Deliveries	307	--	57
Hauling	127,500	--	23,658
TOTAL	**460,230**	**11,559**	**23,786**

TABLE 5.4-3
ON-SITE CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Phase	Phase Length (days)	Equipment	Amount	Total Usage Hours	Total Diesel Fuel Consumption (gallons)
Site Preparation	10	Rubber Tired Dozer	3	240	1,224
		Tractors/Loaders/Backhoes	4	320	659
Grading	60	Excavators	2	960	2,976
		Graders	1	480	1,900
		Rubber Tired Dozers	1	480	2,448
		Scrapers	2	960	8,731
		Tractors/Loaders/Backhoes	2	960	1,977
Building Construction	300	Cranes	1	2,100	7,263
		Forklifts	3	7,200	7,355
		Generator Sets	1	2,400	8,562
		Tractors/Loaders/Backhoes	3	6,300	12,977
		Welders	1	2,400	2,851
Paving	20	Pavers	2	320	902
		Paving Equipment	2	320	785
		Rollers	2	320	558
Architectural Coatings	150	Air Compressors	1	900	1,934
TOTAL					**63,102**

The project would include notable fuel use associated with hauling for soils export. As discussed in the project Geotechnical Evaluation (see Appendix D), export would be required to remove soils which are compressible, expansive, and corrosive and, therefore, are not suitable for structural support of building. As this fuel use is necessary to present structural support of building it is not considered to be wasteful, inefficient, or unnecessary.

There are no known conditions in the project area that would require nonstandard equipment or unusual construction practices that would increase on-site heavy-duty construction equipment use. Therefore, project construction would not result in the use of excessive amounts of fuel or other forms of energy.

Operation-Related Energy Use

During operation, energy use would be associated with transportation-related fuel use (gasoline, diesel fuel, and electric vehicles), and building-related energy use (electricity and natural gas).

TRANSPORTATION-RELATED ENERGY USE

The project would result in transportation energy use associated with employees, patients, and visitors. According to the project traffic report, the project would generate 2,400 average daily vehicle trips with an average one-way trip length of 9.6 miles (Linscott, Law & Greenspan, Engineers 2020). In general, trips by individuals traveling to and from the project site would result from use of passenger vehicles or public transit. Passenger vehicles would be mostly powered by gasoline, with some fueled by diesel or electricity. Public transit would be powered by diesel or natural gas, and could potentially be fueled by electricity.

Total gasoline and diesel fuel consumption was calculated using fuel consumption rates and fleet data for light duty autos from the CARB EMFAC2017 model. The results are summarized in Table 5.4-4.

TABLE 5.4-4
VEHICLE FUEL/ELECTRICITY CONSUMPTION

Fuel Type	Daily VMT	Fuel Efficiency (miles per gallon)	Gallons of Fuel per Day	Electric Efficiency (kWh per mile)*	Electric Vehicle (kWh per day)
Gasoline	22,313	31.31	713	--	--
Diesel	266	46.63	6	--	--
Electric	460	--	--	3.4	135
TOTAL	**23,040**	**--**	**208**	**--**	**135**

kWh = kilowatt hour
*EMFAC does not provide estimates for energy used by electric vehicles. This data was estimated using existing kWh/mile data and estimates of future electric vehicle efficiencies provided by the Federal Highway Administration.

Project fuel consumption would decline over time beyond the initial operational year of the project as a result of continued implementation of increased federal and state vehicle efficiency standards. There is no component of the project that would result in unusually high vehicle fuel use during operation.

As discussed in Section 5.4.2.2, SANDAG developed a regional vehicle-use reduction plan, titled the San Diego Forward. The growth projections used by SANDAG to develop the San Diego Forward are based on the population, vehicle trends, and land use plans developed in general plans. As such, projects that propose development that is consistent with the growth anticipated by SANDAG's growth projections and/or the General Plan would not conflict with the San Diego Forward. The project site is within the approved Business Center II Supplemental Sectional Plan Area (SPA), which is part of the larger Eastlake II General Development Plan (GDP). The project would be

consistent with the City's General Plan, the Eastlake II GDP, Business Park II Supplemental SPA Plan, and citywide Planned Community District regulations. Thus, the project would be consistent with the growth projections anticipated by SANDAG used to develop the San Diego Forward. As the project would be consistent with the San Diego Forward, operation of the project would not create a land use pattern that would result in wasteful, inefficient, or unnecessary use of energy.

NON-TRANSPORTATION-RELATED ENERGY USE

Non-transportation energy use would be associated with electricity and natural gas. As discussed, RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Once operational, the project would be served by SDG&E. As shown in Table 5.4-1 above, SDG&E has already achieved a 43 percent renewables mix.

Additionally, the project would be constructed in accordance with the 2019 Energy Code and the 2019 CalGreen standards. The project would be required to meet the mandatory energy requirements of 2019 CalGreen and the California Energy Code (Title 24, Part 6 of the California Code of Regulations) and would benefit from the efficiencies associated with these regulations as they relate to building heating, ventilating, and air conditioning mechanical systems, water-heating systems, and lighting. Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CalGreen operational water reduction requirements must be demonstrated through completion of water use reporting forms for non-residential buildings. The water use compliance form must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CalGreen or a reduced per-plumbing-fixture water use rate.

Electricity and natural gas service to the project site is provided by SDG&E. Once operational, the Acadia Behavioral Health Hospital would use electricity and natural gas to run various appliances and equipment, including space and water heaters, air conditioners, ventilation equipment, lights, and numerous other devices. Generally, electricity use is higher in the warmer months due to increased air conditioning needs, and natural gas use is highest when the weather is colder as a result of high heating demand. As a part of the GHG modeling prepared for the project (see Appendix F), CalEEMod was used to estimate the total operational electricity and natural gas consumption associated with the project. Table 5.4-5 summarizes the anticipated operational energy and natural gas use.

TABLE 5.4-5 OPERATIONAL ELECTRICITY AND NATURAL GAS USE	
	Total Use
Electricity	1,681,446 kWh/Year
Natural Gas	5,625,990 BTU/Year
kWh = kilowatt hour; BTU = British thermal units	

Energy use would be associated with space and water heaters, air conditioners, ventilation equipment, lights, and medical equipment. The project would not include any nonstandard equipment or operational practices that would increase fuel-energy consumption above typical rates. Therefore, project operations would not result in the use of excessive amounts of fuel or other forms of energy during construction.

Threshold 2: Plan Consistency

State Plan Consistency

The applicable state plans that address renewable energy and energy efficiency are CalGreen, the California Energy Code, and RPS. As discussed for Threshold 1, the project would be required to meet the mandatory energy requirements of 2019 CalGreen and the 2019 California Energy Code. The project would not conflict with or obstruct implementation of CalGreen and the California Energy Code, or with SDG&E's implementation of RPS.

Local Plan Consistency

The applicable local plans that address renewable energy and energy efficiency are the City's Energy Strategy and Action Plan, Energy Roadmap Program, and applicable sections of the General Plan. The policies in these energy efficiency plans direct City actions to clean municipal operations and provide support for the community. The project does not include a municipal component; therefore, policies from these plans do not apply to the project. The project would not conflict with or obstruct implementation of the City's Energy Strategy and Action Plan, Energy Roadmap Program, and applicable sections of the General Plan.

5.4.5 Level of Significance Prior to Mitigation

The project would not result in the use of excessive amounts of fuel or other forms of energy during construction or operation and the project would not create a land use pattern that would result in wasteful, inefficient, or unnecessary use of energy. Impacts would be less than significant

The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

5.4.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.5 Geology and Soils

This section of the Environmental Impact Report (EIR) addresses the potential impacts related to geology and soils resulting from construction and operation of the Eastlake Behavioral Health Hospital project (project). Information presented in this section is based on the Geotechnical Evaluation (Appendix D) prepared for the project by Ninyo & Moore (Ninyo & Moore 2019). Additional discussion is summarized from the project's Storm Water Quality Management Plan (SWQMP; Appendix E), prepared by K&S Engineering (K&S Engineering 2019a).

5.5.1 Existing Conditions

5.5.1.1 Existing Geology and Soils

Regional Geologic Setting

The project site is located in the western portion of the Peninsular Ranges Geomorphic Province. This geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin, south to the southern tip of Baja California. The province varies in width from approximately 30 to 100 miles and generally consists of rugged mountains underlain by Jurassic metavolcanic and metasedimentary rocks, and Cretaceous igneous rocks of the southern California batholith. The portion of the province in western San Diego County that includes the project area consists generally of uplifted and dissected coastal plain underlain by Upper Cretaceous-, Tertiary-, and Quaternary-age sedimentary rocks.

The Peninsular Ranges Province is traversed by a group of subparallel faults and fault zones trending roughly northwest. Several of these faults are considered to be active. The active fault systems located in the vicinity of the project area include the Rose Canyon, Elsinore, San Jacinto, San Andreas, Coronado Bank, San Diego Trough, and San Clemente faults. Major tectonic activity associated with these and other faults within this regional tectonic framework consists primarily of right-lateral, strike-slip movement. The Rose Canyon Fault Zone, the nearest active fault system, is located approximately 12 miles west of the project site.

Site Geology

Subsurface exploration was conducted January 28 through January 30, 2019, and consisted of drilling of 16 small-diameter, hollow-stem auger borings and the excavation of 14 test pits. For the specific locations and details relating to the boring and test pits, refer to the Geotechnical Evaluation, Sections 5 and 6 including Table 1 (see Appendix D). Geologic units encountered during field reconnaissance and subsurface exploration included fill and materials of the Otay Formation. Generalized descriptions of the earth units encountered during subsurface exploration are provided below.

Fill: Fill materials were encountered at the ground surface in each of the borings and test pits. The depth of fill materials encountered in the borings ranged from approximately 1 foot to approximately 43 feet. Fill depths up to approximately 65 feet are anticipated in the northeastern corner of the site, near the top of the slope that descends to the adjacent residential development. As encountered, the fill materials generally consisted of various shades of brown and gray, moist, stiff to hard, sandy silt, clayey silt, elastic silt, lean clay, and sandy clay, along with medium dense to very dense silty sand and clayey sand. With the exception of the stockpile in the east-central portion of the site, these fill materials are considered to be engineered fill (Geotechnics, Inc. 2003).

Otay Formation: Materials comprising the Otay Formation were encountered in each of our exploratory borings and test pits with the exception of two, which identified Sandy Silt (Fill) (see Table 1, Appendix D). The Otay Formation was encountered underlying the fill and extending to the total depths explored. As encountered, the Otay Formation generally consisted of various shades of brown, light gray, and gray, moist, moderately to strongly cemented, silty sandstone, and moderately to strongly indurated clayey siltstone and silty claystone. Scattered bentonite lenses were observed within the upper portions of the Otay Formation. Bentonite typically possesses a high expansion potential and poor strength characteristics when wetted or exposed to moisture.

Geologic Hazards

In general, hazards associated with seismic activity include strong ground motion, ground surface rupture, and liquefaction. These considerations and other geologic hazards, such as landsliding and flooding, as they may affect the project site are discussed in the following sections.

FAULTING AND SEISMICITY

The project site is not underlain by known active or potentially active faults (i.e., faults that exhibit evidence of ground displacement in the last 11,000 years and 2,000,000 years, respectively). The project site is not located within a State of California Earthquake Fault Zone (Hart and Bryant 1997). However, like the majority of southern California, the site is located in a seismically active area and the potential for strong ground motion is considered significant during the design life of the proposed structures. Table 5.5-1 lists selected principal known active faults that may affect the project site, including the approximate fault-to-site distances, and the maximum moment magnitudes (M_{max}) as published by the U.S. Geological Survey (2019). As described in Table 5.5-1, the nearest known active fault is the Rose Canyon Fault, located approximately 12 miles west of the site.

TABLE 5.5-1 PRINCIPAL ACTIVE FAULTS		
Fault	Approximate Fault-to-Site Distance [miles (kilometers)]	Maximum Moment Magnitude (M_{max})
Rose Canyon	12 (19)	6.9
Coronado Bank	21 (34)	7.4
Elsinore (Julian Segment)	37 (60)	7.4
Earthquake Valley	41 (66)	6.8
Elsinore (Coyote Mountain Segment)	42 (68)	6.9
Newport-Inglewood (Offshore)	44 (71)	7.0
Elsinore (Temecula)	47 (76)	7.1
San Jacinto (Coyote Creek)	57 (92)	7.0
San Jacinto (Borrego)	58 (93)	6.8
SOURCE: USGS 2019		

Principal seismic hazards evaluated at the project site are surface ground rupture, ground shaking, seismically induced liquefaction, and various manifestations of liquefaction related hazards (e.g., dynamic settlement).

SURFACE FAULT RUPTURE

Surface fault rupture is the offset or rupturing of the ground surface by relative displacement across a fault during an earthquake. The project site is not transected by known active or potentially active faults. Therefore, the probability of damage from surface fault rupture is considered to be low. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

GROUND MOTION

Ground shaking is a general term referring to all aspects of motion of the Earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the rupture, and local geologic conditions. Intensity is a subjective measure of the perceptible effects of seismic energy at a given point and varies with distance from the epicenter and local geologic conditions. Table 5.5-2 presents historic earthquake data within a radius of approximately 60 miles of the project site with a magnitude of 6.0 or greater.

TABLE 5.5-2 HISTORICAL EARTHQUAKES THAT AFFECTED THE PROJECT SITE		
Date	Magnitude	Approximate Epicentral Distance (miles)
October 23, 1894	6.1	14
May 27, 1862	6.2	14
November 22, 1800	6.3	52
May 28, 1892	6.5	58
April 9, 1968	6.6	61
SOURCES: Appendix D, Section 8.3; California Geological Survey (CGS) Earthquake History and Catalogs website (2018)		

The 2016 California Building Code (CBC) specifies that the Risk-Targeted, Maximum Considered Earthquake (MCE_R) ground motion accelerations be used to evaluate seismic loads for design of buildings and other structures. According to these measurements, a target risk for structural collapse would be the equivalent to 1 percent in 50 years for near-source effects. The MCE_R calculated for the project site was 0.385g using a web-based seismic design tool (SEAOC/OSHPD 2019, as cited in Ninyo & Moore 2019 [see Appendix D]).

LIQUEFACTION AND SEISMICALLY-INDUCED SETTLEMENT

Liquefaction of soils can be caused by strong vibratory motion due to earthquakes. Research and historical data indicate that loose granular soils and non-plastic silts that are saturated by a relatively shallow groundwater table are susceptible to liquefaction. Based on the relatively dense nature of the underlying formational materials identified throughout the project site, the potential for liquefaction and seismically induced settlement to occur s not a design consideration.

LANDSLIDES

Landslides are deep-seated ground failures that result in a large section of a slope (more than 10 feet) sliding downhill. They can result in damage to structures both above and below the slide area. No landslides or indications of deep-seated landsliding were indicated at the project site during site reconnaissance or subsurface exploration.

5.5.2 Regulatory Setting

5.5.2.1 State

California Building Code

The 2016 CBC is based largely on the International Building Code. The CBC includes the addition of more stringent seismic provisions for hospitals and other essential facilities. The CBC contains specific provisions for structures located in seismic zones.

Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983

The Alfred E. Alquist Hospital Facilities Seismic Safety Act (Seismic Safety Act) requires that hospital buildings be designed and constructed to resist the forces generated by earthquakes. In order to accomplish this purpose, the state's Office of Statewide Health Planning and Development (OSHPD) maintains proper building standards for earthquake resistance based upon current knowledge, and provides an independent review of the design and construction of hospital buildings. This act also states that hospital buildings are not subject to building standards of local jurisdictions and instead are subject to the more stringent regulations maintained by OSHPD.

State Senate Bill 1953

Hospitals built in accordance with the standards of the Seismic Safety Act resisted the January 1994 Northridge earthquake with minimal structural damage, while several facilities built prior to the act experienced major structural damage and had to be evacuated. However, certain nonstructural components of the hospitals did incur damage, even in facilities built in accordance with the structural provisions of the Seismic Safety Act. The provisions and subsequent regulation language of Senate Bill (SB) 1953 amended the act to address the issues of survivability of both nonstructural and structural components of hospital buildings after a seismic event. Therefore, the ultimate public safety benefit of the Seismic Safety Act is to have general acute care hospital buildings that not only are capable of remaining intact after a seismic event, but also capable of continued operation and provision of acute care medical services after a seismic event.

State of California – Office of Statewide Health Planning and Development

As previously mentioned, OSHPD monitors the construction, renovation, and seismic safety of hospitals and skilled nursing facilities. The Facilities Development Division (FDD) of OSHPD reviews and inspects health facility construction projects and enforces building standards, per the CBC, as they relate to health facilities construction. The FDD maintains a seismic compliance program in accordance with the Seismic Safety Act and SB 1953. The seismic compliance program regulations consist of 11 articles. The primary purpose of these regulations is to evaluate the potential earthquake performance of a building or its components and to place the building into specified seismic performance categories.

FDD is responsible for overseeing all aspects of general acute care hospital, psychiatric hospital, skilled nursing home, and intermediate care facility construction in California. This responsibility includes:

- Establishing building standards which govern construction of these types of facilities;

- Reviewing the plans and specifications for new construction, alteration, renovation, or additions to health facilities; and
- Observing construction in progress to ensure compliance with the approved plans and specifications. FDD serves as a "one-stop shop" for all aspects of health facility construction.

All geotechnical, structural, mechanical, electrical, and fire/life safety considerations for inpatient healthcare facility physical plant are handled by OSHPD FDD (see Chapters 6 and 7 of the California Administrative Code).

5.5.2.2 Local

City of Chula Vista General Plan

The Environmental Element of the City's General Plan contains policies focused on recognizing and preserving important paleontological resources and the requirement to identify and limit geological hazards. Objectives and policies within the Environmental Element relevant to the project include the following:

OBJECTIVE E 10

Protect important paleontological resources and support and encourage public education and awareness of such resources.

Policy E 10.1: Continue to assess and mitigate the potential impacts of private development and public facilities and infrastructure to paleontological resources in accordance with the California Environmental Quality Act (CEQA).

Policy E 10.2: Support and encourage public education and awareness of local paleontological resources, including the establishment of museums and educational opportunities accessible to the public.

OBJECTIVE E 14

Minimize the risk of injury, loss of life, and property damage associated with geologic hazards

Policy E 14.1: To the maximum extent practicable, protect against injury, loss of life, and major property damage through engineering analyses of potential seismic hazards, appropriate engineering design, and the stringent enforcement of all applicable regulations and standards.

Policy E 14.2: Prohibit the subdivision, grading, or development of lands subject to potential geologic hazards in the absence of adequate evidence demonstrating that such

development would not be adversely affected by such hazards and would not adversely affect surrounding properties.

Policy E 14.3: Require site-specific geotechnical investigations for proposals within areas subject to potential geologic hazards; and ensure implementation of all measures deemed necessary by the City Engineer and/or Building Official to avoid or adequately mitigate such hazards.

City of Chula Vista Municipal Code

The Chula Vista Municipal Code (CVMC) establishes minimum requirements for land development work, to provide for the issuance of permits and for the enforcement of the requirements (CVMC Title 15, Chapter 15.04, *et seq*.). This chapter specifies that projects constructing slopes shall be designed for proper stability considering both geological and soil properties (CVMC Section 15.04.040). Reports shall be prepared by registered engineers and contain the results of surface and subsurface exploration and analysis and contain assurance that the underlying bedrock and soil supporting the slope have strength characteristics sufficient to provide a stable slope and will not pose a danger to persons or property (CVMC Section 15.04.040).

5.5.3 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to geology and soils would be significant if the project would:

1. Directly or indirectly cause 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. Refer to Division of Mines and Geology Special Publication 42;
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction; or
    - Landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
4. 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.

5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

5.5.4 Impacts

Threshold 1: Exposure to Seismic-Related Hazards

Known Earthquake Faults/Strong Seismic Ground Shaking

As previously described, the project site is not underlain by known active or potentially active faults. Additionally, the project site is not located within a State of California Earthquake Fault Zone nor has there been a seismic event greater than 6.0 magnitude within the project area in 50 years. However, like the majority of southern California, the site is located in a seismically active area and the potential for strong ground motion is required to be considered in the design of proposed structures. Based on the site-specific ground motion analyses and seismic hazard analysis, it was concluded that the site is subject to strong ground motion resulting from nearby active faults. Specifically, the existing fill and upper portions of the Otay Formation where noted to be potentially compressible, expansive, and corrosive, which could result in soils not suitable for structural support on buildings (see Appendix D).

The project would comply with all applicable federal, state, and local regulations and building standards related to seismic safety, including the CBC, specifically those seismic design considerations set forth in Table 7 of the Geotechnical Evaluation (see Appendix D). Additionally, the project would be required to adopt the recommendation of the Geotechnical Evaluation; the specific geotechnical criteria required in the design and construction of the project are detailed in Section 10 of the Geotechnical Evaluation (see Appendix D) and shall become conditions of project approval. With specific respect to ground shaking, examples of geotechnical design measures that would be included in the project's construction design include (but are not limited to) the following:

- Because the project site's upper fill is not suitable for structural support, existing fill and upper portions of the Otay Formation would be removed to an approximate depth of 8 feet below the bottoms of the proposed foundations within planned building pads;

- Where flatwork, concrete pavement, or segmental concrete pavers are proposed, the upper one foot of subgrade materials would be removed and replaced with compacted fill material exhibiting a very low to low expansion potential;

- Select reuse of fill and imported fill materials should generally be granular soils with very low to low expansion potential (i.e., an expansion index of 50 or less as evaluated by ASTM International (ASTM; 2016).
- Prior to placement of compacted fill, the exposed ground surface would then be scarified to a depth of approximately 8 inches and watered or dried, as needed, to achieve optimum moisture contents;
- Compacted fill would be placed in horizontal lifts of approximately 8 inches in loose thickness. Prior to compaction, each lift would be watered or dried as needed to achieve an optimum moisture, and then compacted by mechanical methods, to a relative compaction of 90 percent as evaluated by ASTM (2016).

Additional geotechnical measures and seismic design details are listed in the Geotechnical Evaluation (see Appendix D). Overall, consistent with City's General Plan Objective E 14, the project would minimize the risk of injury, loss of life, and property damage associated with geologic hazards. The project would be designed and constructed to include geotechnical design measures based on the recommendations of the site specific Geotechnical Evaluation pursuant to City's General Plan Policy E 14-3, and in accordance with applicable regulatory requirements, the inclusion of which would avoid the potential for risks related to seismic events. Therefore, impacts associated with strong seismic ground shaking would be less than significant.

Seismic-related Ground Failure, including Liquefaction/Landslides

The project site is not located within a landslide or liquefaction hazard area (see Figure 9-7of the City's General Plan; City of Chula Vista 2005a). Additionally, according to the Geotechnical Evaluation (see Appendix D), the potential for liquefaction and seismically induced settlement occurring within the project site is considered to be low and would not require specific design considerations. Likewise, no landslides or indications of landsliding were observed at the project site during the field exploration or the review of available geologic literature and would not require specific design considerations.

Additionally, results of the slope stability analysis indicated that the existing slopes that descend from the eastern, northeastern, and western portion of the site possess adequate factors of safety with respect to static and seismic conditions. Although no risks are foreseen, the project would be required to comply with current seismic design specifications and recommendations detailed in the Geotechnical Evaluation (see Appendix D), and compliance with CBC standards would ensure that impacts associated with seismic-related ground failure would be less than significant.

Threshold 2: Soil Erosion

Ground-disturbing activities during construction of the project could potentially leave loose soil exposed to the erosive forces of rainfall and high winds, which would increase the potential for soil erosion and loss of topsoil. The project site was previously graded in 2002, but additional earthwork would be required to accommodate the behavioral health hospital. Approximately 61,000 cubic yards of cut and 10,000 cubic yards of fill would be required, resulting in an export of 51,000 cubic yards of soil. The project would implement the recommendations detailed in Section 10 of the Geotechnical Evaluation as project design features which would be adopted as conditions of project approval. This would ensure that the project site would be graded and maintained such that surface drainage is directed away from structures in accordance with the CBC and other applicable standards. In addition, surface drainage would be directed away from the top of slopes into swales or other controlled drainage devices. Roof and pavement drainage would be directed into conduits that carry runoff away from the proposed structure.

In addition to the recommendations of the site-specific Geotechnical Evaluation, a SWQMP was prepared for the project (see Appendix E). The SWQMP describes best management practices (BMPs) to be implemented during construction to prevent soil erosion that could result in discharge of sediment and other pollutants into the City's storm water system. The BMPs would provide erosion and sedimentation control through measures such as silt fences, fiber rolls, or gravel bags. Additional details relating to erosion and siltation are discussed in Section 5.8 of this EIR.

Post construction, structural BMPs proposed by the project include design features such as landscaped areas and slopes, and biofiltration basins for approximately 30 percent of the site. The biofiltration basins, shown in Figure 3-11, would provide hydromodification control and reduce potential for soil erosion due to excess run-off volume and velocity.

Earth-disturbing activities associated with construction would be temporary and compliance with the General Construction Permit and BMPs outlined in the SWQMP would reduce impacts related to soil erosion and the loss of topsoil to a level less than significant.

Threshold 3: Soil Stability

As previously discussed under Threshold 1, the project site is not underlain by known active or potentially active faults. Surface ground cracking or lateral spreading related to shaking from distant events is not considered a significant hazard. Compliance with current seismic design specifications, CBC standards, and other regulatory requirements would ensure that the project would have less than significant impacts associated with soil stability and associated geologic hazards.

Threshold 4: Expansive Soils

As identified above, the on-site fill materials and materials derived from the Otay Formation possess a high potential for expansion and poor strength characteristics when wetted or exposed to moisture. As such, these soils would not be suitable for structural support of buildings and improvements in their present condition. The project would comply with all regulations related to seismic safety, including the CBC. Additionally, the project would be required to adopt the recommendation of the Geotechnical Evaluation to be implemented as conditions of project approval. The specific geotechnical criteria required in the design and construction of the project are detailed in Section 10 of the Geotechnical Report (see Appendix D) and shall become conditions of project approval.

The project would be designed and constructed based on the recommendations of the Geotechnical Evaluation and in accordance with applicable regulatory requirements. Therefore, impacts associated with expansive soils would be less than significant.

Threshold 5: Septic Systems

The project would extend the existing sewer system located in Showroom Place in order to serve the project. The project would not require the use of septic systems. Therefore, no impact would occur.

Threshold 5: Paleontological Resources

The project site is located within the Peninsular Ranges Foothill Region of the City (see Appendix D). This area is primarily underlain by Mesozoic metavolcanic and metasedimentary rocks with Mesozoic plutonic ("granitic") rocks (City of Chula Vista 2005c). As identified in Section 5.6 of the City General Plan Update Final EIR, the only geologic formation that occurs within the Peninsular Ranges Foothill Region is Santiago Peak Volcanics (KJsp), and is assigned a Marginal Sensitivity for paleontological resources (City of Chula Vista 2005c).

Project site excavations are anticipated for subgrade preparation associated with the shallow foundations required for the proposed single-story slab on grade construction for the project. Recommendations from the Geotechnical Evaluation indicate that the project would require remedial grading of up to eight feet of depth below building foundations to remove and replace the existing fill (see Appendix D). As the project site has been previously graded and any remaining underlying geological formations are marginally sensitive for paleontological resources, it is unlikely the project would impact such resources. Therefore, impacts would be less than significant.

5.5.5 Level of Significance Prior to Mitigation

The project would comply with regulatory seismic design specifications, CBC standards, and recommendations contained in the site-specific Geotechnical Evaluation. The

project site would be graded and maintained such that surface drainage is directed away from the top of slopes into swales and construction BMPs would be enforced to ensure soil stability is maintained. The project site has been previously graded and would not impact paleontological resources, Through implementation of the geological project design features, and compliance with seismic regulations, all potential impacts associated with geological hazards would be less than significant.

5.5.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.6 Greenhouse Gas

This section of the Environmental Impact Report (EIR) analyses impacts related to construction and operational greenhouse gas (GHG) emissions of the Eastlake Behavioral Health Hospital Project (project). Information presented in this section is based on the Greenhouse Gas Analysis for the Eastlake Behavioral Health Hospital (Greenhouse Gas Analysis; Appendix F) prepared by RECON Environmental, Inc. (RECON 2020b).

5.6.1 Existing Conditions

5.6.1.1 Understanding Global Climate Change

To evaluate the incremental effect of the project on statewide GHG emissions and global climate change, it is important to have a basic understanding of the nature of the global climate change problem. Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of the earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include volcanic eruptions that spew gases and particles (dust) into the atmosphere; the amount of water, vegetation, and ice covering the earth's surface; subtle changes in the earth's orbit; and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone. Because it is believed that the increased GHG concentrations around the world are related to human activity and the collective of human actions taking place throughout the world, it is quintessentially a global or cumulative issue.

There are numerous GHGs, both naturally occurring and artificial: carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) are produced by both natural and anthropogenic (human) sources. Other gases such as (hydrofluorocarbons [HFCs; such as HFC-23], perfluorocarbons [PFCs; such as CF_4], and sulfur hexafluoride [SF_6]) are the result of human processes. CO_2, CH_4 and N_2O are the GHGs of primary concern in this analysis. The project would result in the emission of carbon dioxide during the combustion of fossil fuels in vehicles, from electricity generation and natural gas consumption, and from solid waste disposal. Smaller amounts of methane and nitrous oxide would be emitted from the same operations.

Additional discussion of global climate change is included in Appendix F.

5.6.1.2 Existing GHG Emissions

State and Regional GHG Inventories

STATE GHG INVENTORY

The CARB performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons (MMT) of carbon dioxide equivalent (CO_2E). Table 5.6-1 shows the estimated statewide GHG emissions for the years 1990, 2005, and 2017.

TABLE 5.6-1
CALIFORNIA GHG EMISSIONS BY SECTOR IN 1990, 2005, AND 2017
(MMT CO_2E)

Sector	1990 Emissions (% total)[1,2]	2005 Emissions (% total)[2,3,4]	2017 Emissions (% total)[2,3,4]
Sources			
Agriculture	23.4 (5%)	33.70 (7%)	32.42 (8%)
Commercial	14.4 (3%)	14.26 (3%)	15.14 (4%)
Electricity Generation	110.6 (26%)	107.85 (22%)	62.39 (15%)
High GWP	--	9.26 (2%)	19.99 (5%)
Industrial	103.0 (24%)	95.93 (20%)	89.40 (21%)
Recycling and Waste	--	7.78 (2%)	8.89 (2%)
Residential	29.7 (7%)	28.81 (6%)	26.00 (6%)
Transportation	150.7 (35%)	189.05 (39%)	169.86 (40%)
Forestry (Net CO_2 flux)[4]	-6.5	--	--
Not Specified[4]	1.3	--	--
TOTAL	**426.6**	**486.65**	**424.10**

SOURCE: CARB 2007 and 2019 (see Appendix F).
MMT CO_2E = million metric tons of carbon dioxide equivalent
[1] 1990 data was retrieved from the CARB 2007 source.
[2] Quantities and percentages may not total properly due to rounding.
[3] 2005 and 2017 data were retrieved from the CARB 2019 source.
[4] Reported emissions for key sectors. The inventory totals for 2005 and 2017 did not include Forestry or Not Specified sources.

As shown in Table 5.6-1, statewide GHG source emissions totaled about 427 MMT CO_2E in 1990, 487 MMT CO_2E in 2005, and 424 MMT CO_2E in 2017. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. However, transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

LOCAL GHG INVENTORY

As part of the City's Climate Action Program (CAP), the Department of Public Works' Conservation Section performs emission inventories to identify GHG sources and help guide policy decisions. The City's community-wide GHG emissions were calculated using the International Council for Local Environmental Initiatives' U.S. Community Protocol. The results of the community inventory for 1990, 2005, 2012, 2014, and 2016 are summarized in Table 5.6-2.

TABLE 5.6-2
CITY OF CHULA VISTA COMMUNITY GHG EMISSIONS
(MT CO_2E)

Source	1990 Emissions	2005 Emissions	2012 Emissions	2014 Emissions	2016 Emissions
Transportation	335,435	717,256	851,386	740,584	681,000
Energy Use	391,606	471,180	505,311	403,038	416,000†
Residential	*197,115*	*247,559*	*266,438*	*221,923*	
Commercial	*71,363*	*182,951*	*204,818*	*181,115*†	
Industrial	*123,128*	*41,670*	*34,055*		
Solid Waste	78,539	60,780	50,717	67,245	41,000
Potable Water (embedded energy)	—	50,062	40,819	30,810	11,000
Waste Water	9,607	15,457	7,962	7,826	3,000
Community Emissions	815,186	1,315,734	1,456,195	1,249,503	1,152,000
Municipal Vehicle Fleet	4,655	9,282	6,802	5,802	3,176
Municipal Energy Use	24,969	8,771	6,590	5,041	3.825
Buildings	*3,728*	*5,856*	*4,321*	*3,646*	*2,734*
External Lights	*20,260*	*2,896*	*2,247*	*1,370*	*1,077*
Sewage	*981*	*19*	*22*	*25*	*14*
Municipal Solid Waste	2,356	1,830	2,296	1,983	2,055
Municipal Water (embedded energy)	—	—	1,133	1,250	684
Municipal Emissions	31,980	19,883	16,821	14,076	9,740
Total Emissions	847,166	1,335,617	1,473,016	1,263,579	1,161,740

SOURCE: City of Chula Vista 2014, 2018, 2020a, and 2020b (see Appendix F).
MT CO_2E = metric tons of carbon dioxide equivalent
†Commercial and Industrial energy usage was merged in the 2014 inventory due to privacy concerns. Residential, Commercial, and Industrial energy usage was merged in the 2016 inventory.

PROJECT SITE GHG EMISSIONS

The project site is currently undeveloped, thus, it is not a source of anthropogenic GHG emissions. Additionally, the limited vegetation on-site does not provide a measurable amount of carbon sequestration.

5.6.2 Regulatory Setting

5.6.2.1 Federal

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (U.S. EPA) has many federal level programs and projects to reduce GHG emissions. The U.S. EPA provides technical expertise and encourages voluntary reductions from the private sector. One of the voluntary programs applicable to the project is the Energy Star program. Energy Star products such as appliances, building products, heating and cooling equipment, and other energy-efficient equipment may be utilized by the project.

Energy Star is a joint program of U.S. EPA and the U.S. Department of Energy, which promotes energy efficient products and practices. Tools and initiatives include the Energy Star Portfolio Manager, which helps track and assess energy and water consumption across an entire portfolio of buildings, and the Energy Star Most Efficient 2020, which provides information on exceptional products which represent the leading edge in energy efficient products in the year 2020 (U.S. EPA 2020a).

The U.S. EPA also collaborates with the public sector, including states, tribes, localities, and resource managers, to encourage smart growth, sustainability preparation, and renewable energy and climate change preparation. These initiatives include the Clean Energy-Environment State Partnership Program, the Climate Ready Water Utilities Initiative, the Climate Ready Estuaries Program, and the Sustainable Communities Partnership (U.S. EPA 2020b).

Corporate Average Fuel Economy Standards

The federal Corporate Average Fuel Economy standards determine the fuel efficiency of certain vehicle classes in the U.S. The first phase of the program applied to passenger cars, new light-duty trucks, and medium-duty passenger cars with model years 2012 through 2016, and required these vehicles to achieve a standard equivalent to 35.5 miles per gallon. The second phase of the program applies to model years 2017 through 2025 and increased the standards to 54.5 miles per gallon. Separate standards were also established for medium- and heavy-duty vehicles. The first phase applied to model years 2014 through 2018 and the second phase applies to model years 2018 through 2027. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

5.6.2.2 State

EO S-3-05 – Statewide GHG Emission Targets

This executive order (EO) establishes the following GHG emissions reduction targets for the state of California:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This EO also directs the Secretary of the California EPA to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006, and has been updated every two years.

EO B-30-15 – 2030 Statewide GHG Emission Goal

This EO, issued on April 29, 2015, establishes an interim GHG emission reduction goal for the state of California to reduce GHG emissions 40 percent below 1990 levels by 2030. This EO also directs all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05. Additionally, this EO directs CARB to update its Climate Change Scoping Plan to address the 2030 goal. CARB is expected to develop statewide inventory projection data for 2030, as well as commence its efforts to identify reduction strategies capable of securing emission reductions that allow for achievement of the EO's new interim goal.

Assembly Bill 32 – California Global Warming Solutions Act

In response to EO S-3-05, the California Legislature passed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, and thereby enacted Sections 38500–38599 of the California Health and Safety Code. The heart of AB 32 is its requirement that CARB establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009, indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

Climate Change Scoping Plan

In 2008, as directed by the California Global Warming Solutions Act of 2006, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (*Scoping Plan*),

which identifies the main strategies California will implement to achieve the GHG reductions necessary to reduce forecasted emissions in 2020 to the state's historic 1990 emissions level (CARB 2008). In 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (2014 Scoping Pan) (CARB 2014). The 2014 Scoping Plan "highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050" (CARB 2014).

In October 2017, CARB released most recent version of The 2017 Climate Change Scoping Plan Update, The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target (Draft Scoping Plan; CARB 2017). The Draft Scoping Plan identifies the state strategy for achieving the state's 2030 interim GHG emissions reduction target codified by SB 32. Measures under the Draft Scoping Plan Scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, Renewables Portfolio Standard, Sustainable Communities Strategy, and the Short-Lived Climate Pollutant Reduction Strategy, and the Cap-and-Trade Program. Additionally the Draft Scoping Plan proposes further strategies to reduce waste emissions through cogeneration, reduction of GHG emissions from the refinery sector by 20 percent, and new policies to address GHG emissions from natural and working lands.

Renewables Portfolio Standard

The Renewables Portfolio Standard (RPS) promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, SB 2 (1X) codified California's 33 percent RPS goal. In September 2015, the California Legislature passed SB 350, which increases California's renewable energy mix goal to 50 percent by year 2030. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.

Assembly Bill 341 – Solid Waste Diversion

The Commercial Recycling Requirements mandate that businesses (including public entities) that generate 4 cubic yards or more of commercial solid waste per week and multi-family residential with five units or more arrange for recycling services. Businesses can take one or any combination of the following in order to reuse, recycle, compost, or otherwise divert solid waste from disposal. Additionally, AB 341 mandates that 75 percent of the solid waste generated be reduced, recycled, or composted by 2020.

Regional Emissions Targets – SB 375

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy or Alternative Planning Strategy to address GHG reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan. San Diego Association of Governments (SANDAG) is the San Diego region's MPO. The CARB targets for the SANDAG region require a 15 percent reduction in GHG emissions per capita from automobiles and light duty trucks compared to 2005 levels by 2020, and a 19 percent reduction by 2035.

California Code of Regulations, Title 24 – California Building Code

The California Code of Regulations, Title 24, is referred to as the California Building Code (CBC). It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, handicap accessibility, and so on. Of particular relevance to GHG reductions are the CBC's energy efficiency and green building standards.

TITLE 24, PART 6 – ENERGY EFFICIENCY STANDARDS

The California Code of Regulations, Title 24, Part 6 is the California Energy Efficiency Standards for Residential and Nonresidential Buildings (also known as the California Energy Code). This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficient technologies and methodologies as they become available, and incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum standards.

The current version of the Energy Code, known as 2019 Title 24, or the 2019 Energy Code, became effective January 1, 2020. The Energy Code provides mandatory energy-efficiency measures as well as voluntary tiers for increased energy efficiency. The California Energy Commission (CEC), in conjunction with the California Public Utilities Commission, has adopted a goal that all new residential and commercial construction achieve zero net energy by 2020 and 2030, respectively. It is expected that achievement of the zero net energy goal will occur via revisions to the Title 24 standards.

New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report

to the local building permit review authority and the CEC. The compliance reports must demonstrate a building's energy performance through use of CEC approved energy performance software that shows iterative increases in energy efficiency given the selection of various heating, ventilation, and air conditioning; sealing; glazing; insulation; and other components related to the building envelope.

TITLE 24, PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code, referred to as CalGreen, was added to Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The most recent 2019 CalGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. Local jurisdictions must enforce the minimum mandatory requirements and may adopt CalGreen with amendments for stricter requirements.

The mandatory standards require:

- Outdoor water use requirements as outlined in local water efficient landscaping ordinances or current model water efficient landscape ordinance standards, whichever is more stringent;
- Requirements for water conserving plumbing fixtures and fittings;
- 65 percent construction/demolition waste diverted from landfills;
- Infrastructure requirements for electric vehicle charging stations;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CalGreen mandatory requirements must be demonstrated through completion of compliance forms and worksheets.

5.6.2.3 Local

City of Chula Vista General Plan

The Environmental Element of the City's General Plan establishes a policy framework for implementing the City's plans and strategies aimed at reducing GHG emissions. Policies relevant to the project include the following:

OBJECTIVE E6

Improve local air quality and reduce greenhouse gas emissions by minimizing the release of air pollutants and toxic air contaminants and limiting the exposure of people to such pollutants

Policy E 6.6: Explore incentives to promote voluntary air pollutant reductions, including incentives for developers who go above and beyond applicable requirements and for facilities and operations that are not otherwise regulated.

Policy E 6.7: Encourage innovative energy conservation practices and air quality improvements in new development and redevelopment projects consistent with the City's Air Quality Improvement Plan Guidelines or its equivalent, pursuant to the City's Growth Management Program.

City of Chula Vista Climate Action Plan

In 2000, the City became the first municipality in San Diego County to adopt a CAP. The plan, *CO_2 Reduction Plan*, inventoried existing CO_2 emissions, projected emissions growth to 2010, and evaluated a wide range of CO_2 reduction measures (City of Chula Vista 2000). Measures included in the original Climate Action Plan focus on Transportation Control Measures (TCMs); land use patterns; clean transportation fuels; and residential, commercial, and industrial building efficiencies. In 2005 the City re-inventoried GHG emissions inventory to evaluate the City's progress in reaching its emissions goals. Subsequently, the City developed the *Climate Mitigation Plans* (City of Chula Vista 2008) and *Climate Adaptation Plans* (City of Chula Vista 2011a).

In 2017, the City released a new CAP (City of Chula Vista 2017a). The updated focus of the new Climate Action Plan promoted energy- and water-efficient buildings, smart growth and clean transit, zero waste policies, and increased local energy generation and water resources.

City of Chula Vista Air Quality Improvement Plans

Community and site design features and environmentally conscious building practices can have a substantial effect on air quality emissions and energy consumption. In recognition of this, the City has been progressive in its approach to advancing the practices of energy conservation and reduction of greenhouse gas emissions. Many City programs promote energy conservation and reduction of GHG emissions by requiring applicants to implement the best available community site design practices such as providing alternative modes of transportation, transit-friendly, walkable communities, and sustainable building design. Projects that meet development criteria would be required to prepare an Air Quality Improvement Plan (AQIP) which must demonstrate how the project has been designed consistent with each of these programs and thus represents

the best available design in terms of improving energy efficiency and reducing GHG emissions.

5.6.3 Thresholds of Significance

Consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts related to GHG would be significant if the project would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.

As stated in the CEQA Guidelines, these questions are "intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance" (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, VII Greenhouse Gas Emissions).

Because the City has not adopted its own GHG guidance to use in the analysis of the CEQA thresholds of significance, this analysis follows guidance from the South Coast Air Quality Management District (SCAQMD). Guidance from the SCAQMD recommends a tiered approach for land use development projects. As the project is subject to CEQA (Tier 1) and is project emissions have not been addressed be a regional GHG emissions reduction plan (Tier 2), the project is assessed against the Tier 3 Residential/ Commercial Screening Level of 3,000 MT CO_2E.

5.6.4 Impacts

<u>Threshold 1: GHG Emissions</u>

Project Emission Modeling

Project GHG emissions were calculated using California Emissions Estimator Model (CalEEMod) 2016.3.2 (California Air Pollution Control Officers Association [CAPCOA] 2017). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects based on California-specific emission factors. CalEEMod can be used to calculate emissions from mobile (on-road vehicles), area (fireplaces, consumer products [cleansers, aerosols, and solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste sources. GHG emissions are estimated in terms of MT CO_2E.

Below is a summary of modeling methods and assumptions. For a more in-depth discussion of analysis methodology and model inputs refer Section 5.0 of the Greenhouse Gas Analysis (see Appendix F).

CONSTRUCTION EMISSIONS

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and the commute vehicles of the construction workers. Construction emissions are calculated for construction activity based on the construction equipment profile and other factors determined as needed to complete all phases of construction. The project was modeled with construction occurring from July 2021 through December 2022 and with an operational year of 2022. Based on guidance from the SCAQMD, total construction GHG emissions resulting from a project should be amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project (SCAQMD 2009).

MOBILE EMISSIONS

Emissions from vehicles come from the combustion of fossil fuels in vehicle engines. According to the project traffic impact report, the project would generate 2,400 average daily vehicle trips with an average one-way trip length of 9.6 miles (Linscott, Law & Greenspan, Engineers 2020; see Appendix I). Default vehicle emission factors for the first operational year of 2022 were used.

ENERGY EMISSIONS

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. GHGs are emitted during the generation of electricity from fossil fuels off-site in power plants.

Project energy use was estimated based on the size of the proposed land uses using data compiled from SCAQMD surveys and incorporated into CalEEMod. By default, energy use factors in CalEEMod reflect the 2016 Title 24 energy code (Part 6 of the Building Code). The current version of the energy code, 2019 Title 24, went into effect on January 1, 2020. For non-residential buildings, it is estimated that the 2019 standards would decrease energy consumption by 30 percent (CEC 2018). The project would be subject to the 2019 Title 24 energy code standards. Thus, in order to account for compliance with the 2019 Title 24 energy code standards, a 30 percent reduction in building energy use was included in calculations for the project.

The project would be served by San Diego Gas & Electric (SDG&E). Therefore, SDG&E's specific energy-intensity factors (i.e., the amount of CO_2, CH_4, and N_2O per kilowatt-hour) are used in the calculations of GHG emissions. As discussed above, the state mandate for renewable energy is 33 percent by 2020. Based on the most recent annual report, SDG&E has already procured 43 percent (SDG&E 2019). However, the energy-intensity factors included in CalEEMod by default only represent a 10.2 percent procurement of renewable energy (SDG&E 2011). To account for the continuing effects

of RPS, the energy-intensity factors included in CalEEMod were adjusted to reflect the current procurement of 43 percent renewable energy. SDG&E energy intensity factors are shown in Table 5.6-3.

TABLE 5.6-3
SAN DIEGO GAS & ELECTRIC INTENSITY FACTORS

GHG	2009 (lbs/MWh)	2020 (lbs/MWh)
Carbon Dioxide (CO_2)	720.49	457.30
Methane (CH_4)	0.029	0.018
Nitrous Oxide (N_2O)	0.006	0.004

SOURCE: SDG&E 2011.
lbs = pounds; MWh = megawatt hour

AREA SOURCES EMISSIONS

Area sources include GHG emissions that would occur from the use of landscaping equipment. The use of landscape equipment emits GHGs associated with the equipment's fuel combustion. The landscaping equipment emission values were derived from the 2011 In-Use Off-Road Equipment Inventory Model (CARB 2011).

WATER AND WASTEWATER EMISSIONS

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both CH_4 and N_2O.

The indoor and outdoor water use consumption data for each land use subtype comes from the Pacific Institute's Waste Not, Want Not: The Potential for Urban Water Conservation in California 2003 (as cited in CAPCOA 2017). Based on that report, a percentage of total water consumption was dedicated to landscape irrigation, which is used to determine outdoor water use. Wastewater generation was similarly based on a reported percentage of total indoor water use (CAPCOA 2017). The project would be subject to CalGreen, which requires a 20 percent increase in indoor water use efficiency. Thus, in order to demonstrate compliance with CalGreen, a 20 percent reduction in indoor water use was included in the water consumption calculations for the project. In addition to water reductions under CalGreen, the GHG emissions from the energy used to transport the water are affected by RPS. As discussed previously, to account for the effects of RPS through 2020, the energy-intensity factors included in CalEEMod were adjusted to reflect 43 percent renewable energy (see Table 5.6-3).

SOLID WASTE EMISSIONS

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. To calculate the GHG emissions generated by disposing of solid waste for the project, the total volume of solid waste was calculated using waste disposal rates identified by California Department of Resources Recycling and Recovery (CalRecycle). The methods for quantifying GHG emissions from solid waste are based on the Intergovernmental Panel on Climate Change method, using the degradable organic content of waste. GHG emissions associated with the project's waste disposal were calculated using these parameters.

These CalRecycle waste generation estimates do not reflect increased waste diversion achieved through compliance with AB 341, Commercial Recycling Requirements. According to a CalRecycle report to the Legislature, as of 2013 California has achieved a statewide 50 percent diversion of solid waste from landfills through "reduce/recycle/compost" programs (CalRecycle 2015a). AB 341 mandates that 75 percent of the solid waste generated be reduced, recycled, or composted. Therefore, compliance with AB 341 requirements would increase solid waste diversion by an additional 25 percent and thereby reduce solid waste disposal by 50 percent.

EMERGENCY GENERATOR TESTING

The project would install and operate an 800 kilowatt (kW) Caterpillar C27 Generator Set emergency generator (specifics are included in Attachment 2 of the GHG Analysis; see Appendix F). Emissions due to maintenance and testing were calculated using the default emission factors from CalEEMod assuming testing involves operation at full load for up to 50 total hours per year.

Total GHG Emissions

Table 5.6-4 provides a summary of the calculation methodology for each emission source. Table 5.6-5 shows that the project would generate 2,986 MT CO_2E annually, which is less than the 3,000 MT CO_2E residential/commercial screening threshold.

TABLE 5.6-4 SUMMARY OF GHG EMISSION CALCULATION METHODOLOGY	
Source	Project Emission Calculation
Construction	Construction emissions were estimated using CalEEMod. Construction emissions were amortized over 30 years and added to operational emissions.
Vehicles	Vehicle emissions were calculated using trip generation from the project Transportation Impact Analysis and California Air Resources Board vehicle emission factors.
Energy	A 30 percent reduction in building energy use was included to account for compliance with 2019 Title 24 energy code standards. Additionally, SDG&E energy-intensity factors were adjusted to reflect the current renewable energy procurement.
Area	Area-source emissions were calculated based on standard landscaping equipment, quantities, and consumer product emission factors.
Water	A 20 percent increase in indoor water use efficiency was included to account for compliance with CalGreen standards. Additionally, SDG&E energy-intensity factors were adjusted to reflect the current renewable energy procurement.
Solid waste	Emissions were calculated using CalRecycle waste generation rates and also account for an additional 25 percent increase in solid waste diversion resulting from compliance with AB 341 requirements.
Emergency Generator	Emissions were calculated using CalEEMod default emission factors and assuming operation for up to 50 hours per year.

TABLE 5.6-5 PROJECT GHG EMISSIONS (MT CO_2E per year)	
Emission Source	Unmitigated Project GHG Emissions
Area	2,312
Energy *Electricity* *Natural Gas*	506 *284* *222*
Area sources	<1
Generator Maintenance	21
Vehicles	<1
Water Use	40
Solid Waste	88
Construction[1]	36
TOTAL[2]	**2,986**
MT CO_2E = metric tons of carbon dioxide equivalent [1]Construction emissions were amortized over a 30-year period. [2]Total may vary due to independent rounding.	

Threshold 2: Adopted Plans, Policies, and Regulations Intended to Reduce GHG Emissions

Statewide Plans

Significance screening levels from SCAQMD guidance are based on the concept of establishing a 90 percent GHG emission market capture rate. A 90 percent emission capture rate means that 90 percent of total emissions from new development projects would be subject to CEQA analysis and mitigation; the 3,000 MT CO_2E

Residential/Commercial Screening Level would specifically apply to GHG emissions from new development projects for residential/commercial sectors. The market capture rate of 90 percent was developed to capture a substantial fraction of GHG emissions from new development projects while excluding small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions.

The market capture rate approach is based on guidance from the CAPCOA report CEQA & Climate Change, dated January 2008 (CAPCOA 2008). Following rationale presented in the CAPCOA Guidance, the aggregate emissions from all projects with individual annual emissions that are equal to or less than the identified screening levels for 90 percent market capture rate would not impede achievement of the statewide GHG emissions reduction targets.

Project construction and operation would not exceed the 3,000 MT CO_2E Residential/Commercial Screening Level. Therefore, the project would not conflict with plans to achieve statewide GHG emissions reduction targets established by AB 32 or SB 32.

Local Plans

As discussed in Section 5.6.2.3, the City updated its CAP in 2017. The updated focus of the new CAP promoted energy- and water-efficient buildings, smart growth and clean transit, zero waste policies, and increased local energy generation and water resources.

Table 5.6-6 summarizes reduction strategies from the CAP and evaluates project consistency with each strategy. As shown in Table 5.6-6, CAP reduction strategies would be implemented directly by the City and therefore are not applicable to individual development projects. The project would be consistent with all applicable CAP reduction strategies; therefore, the project would not conflict with the CAP and impacts would be less than significant.

TABLE 5.6-6
CLIMATE ACTION PLAN CONSISTENCY ANALYSIS

Category	Reduction Strategy	Project Consistency
Water Conservation & Reuse		
Water Education and Enforcement	Expand education and enforcement targeting landscape water waste.	**Not applicable.** The project would not impede efforts to expand education or enforcement targeting landscaping water waste.
Water Efficiency Upgrades	Update the City's Landscape Water Conservation Ordinance to promote more water-wise landscaping designs.	**Not applicable.** The project would not impede efforts to update the City's Landscape Water Conservation Ordinance.
	Require water-saving retrofits in existing buildings at a specific point in time.	**Not applicable.** The project would not impede efforts to require water-saving retrofits in existing buildings.

TABLE 5.6-6
CLIMATE ACTION PLAN CONSISTENCY ANALYSIS

Category	Reduction Strategy	Project Consistency
Water Reuse Plan & System Installations	Develop a Water Reuse Master Plan to maximize the use of storm water, graywater, and on-site water reclamation.	**Not applicable.** The project would not impede efforts to develop a Water Reuse Master Plan.
	Streamline complex graywater system's permit review.	**Not applicable.** The project would not impede efforts to streamline permit review for graywater systems.
Waste Reduction		
Zero Waste Plan	Develop a Zero Waste Plan to supplement statewide green waste, recycling, and plastic bag ban efforts.	**Not applicable.** The project would not impede efforts to develop a Zero Waste Plan.
Renewable & Energy Efficient		
Energy Education & Enforcement	Expand education targeting key community segments and facilitating energy performance disclosure.	**Not applicable.** The project would not impede efforts to expand energy education and performance disclosure.
	Leverage the building inspection process to distribute energy-related information and to deter unpermitted, low performing energy improvements.	**Not applicable.** The project would not impede efforts to distribute energy-related information.
Clean Energy Sources	Incorporate Solar Photovoltaic into all new residential and commercial buildings.	**Not applicable.** The project would not impede efforts to adopt pre-wiring standards or to develop a solar photovoltaic requirement.
	Provide more grid-delivered clean energy through Community Choice Aggregation or other mechanism.	**Not applicable.** The project would not impede efforts to provide grid-delivered clean energy.
Energy Efficiency Upgrades	Expand the City's "cool roof" standards to include re-roofs and western areas.	**Not applicable.** The project would not impede efforts to revise the City's "cool roof" standards.
	Facilitate more energy upgrades in the community through incentives, permit streamlining and education.	**Not applicable.** The project would not impede efforts to facilitate energy upgrades in the community.
	Require energy-savings retrofits in existing buildings at a specific point in time.	**Not applicable.** The project would not impede efforts to require energy-savings retrofits in existing buildings.
Robust Urban Forests	Plant more shade trees to save energy, address heat island issues, and improve air quality.	**Consistent.** The project Landscape Plan includes 41 patio shade trees throughout the patio areas and along pathways, 90 shade trees surrounding and throughout the parking lot, and 76 perimeter screen trees.
Smart Growth & Transportation		
Complete Streets & Neighborhoods	Incorporate "Complete Streets" principles into municipal capital projects and plans.	**Not applicable.** The project would not impede efforts to improve municipal capital projects and plans.

TABLE 5.6-6
CLIMATE ACTION PLAN CONSISTENCY ANALYSIS

Category	Reduction Strategy	Project Consistency
	Encourage higher density and mixed-use development in Smart Growth areas, especially around trolley stations and other transit nodes.	**Not applicable.** The project would not impede efforts to construct additional high density and mixed-use development in Smart Growth areas.
Transportation Demand Management	Utilize bike facilities, transit access/passes and other Transportation Demand Management and congestion management offerings.	**Not applicable.** The project would not impede efforts to develop Transportation Demand Management and congestion management offerings.
	Expand bike-sharing, car-sharing, and other "last mile" transportation options.	**Not applicable.** The project would not impede efforts to develop Transportation Demand Management and congestion management offerings.
Alternative Fuel Vehicle Readiness	Support the installation of more local alternative fueling stations.	**Not applicable.** The project would not impede efforts to install more local alternative fueling stations.
	Designate preferred parking for alternative fuel vehicles.	**Not applicable.** The project would not impede efforts to designate preferred parking for alternative fuel vehicles.
	Design all new residential and commercial buildings to be "Electric Vehicle Ready".	**Consistent.** The project would comply with 2019 CalGreen requirements for provision of electric vehicle charging equipment.

SOURCE: City Climate Action Plan (City of Chula Vista 2017a).

5.6.5 Level of Significance Prior to Mitigation

Project construction and operation would not exceed the 3,000 MT CO_2E Residential/Commercial Screening Level. Therefore, the project's contribution to global climate change impacts on the environment would be less than significant and the project would not conflict with plans to achieve statewide GHG emissions reduction targets established by AB 32 or SB 32.

The project would be consistent with all applicable CAP reduction strategies; therefore, the project would not conflict with the CAP and impacts would be less than significant.

5.6.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.7 Hazards

This section of the Environmental Impact Report (EIR) addresses the potential for the Eastlake Behavioral Health Hospital project (project) to result in impacts related to hazards or hazardous materials. The following discussion is based on federal, state, and local laws and regulations regarding hazardous materials.

5.7.1 Existing Conditions

5.7.1.1 Existing Hazards Setting

The 10.42-acre project site consists of a relatively flat, vacant lot that has been previously graded in 2002 consistent with the approved Eastlake Business Center II- Phase 2 grading plans . The project site lies within the larger Eastlake Business Park, which contains existing commercial development and parking lots and is subject to a zoning designation of Business Center 4 (BC-4). The healthcare industry is heavily regulated and the proposed behavioral health hospital would operate within the parameters of a variety of laws and regulations as discussed in the following paragraphs. The regulations govern proper handling and disposal of hospital-related biohazards, “sharps,” radioactive, and other medical waste.

Airport Hazards

The project site is located 5.1 miles west of John Nichol’s Field Airport and 9.3 miles north of Brown Field Municipal Airport. John Nichol’s Field Airport does not have an adopted Airport Land Use Commission Plan (ALUCP) and the project is not located within the Brown Field Municipal Airport influence area (San Diego County Regional Airport Authority 2010).

Hazardous Materials Sites

According to the State Water Resources Control Board (SWRCB) GeoTracker database, along with the California Department of Toxic Substance Control (DTSC) EnviroStor database, the project site and vicinity (one-mile radius) is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2020).

5.7.2 Regulatory Setting

5.7.2.1 Federal

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 is also known as “Superfund,” and the Superfund Amendments and

Reauthorization Act (SARA) of 1986 (amended CERCLA, SARA Title III). CERCLA, SARA Title III provides a federal framework for setting priorities for cleanup of hazardous substances releases to air, water, and land. This framework provides for the regulation of the cleanup process, cost recovery, response planning, and communication standards. SARA Title III authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). EPCRA is intended to reduce disaster through the reporting of hazardous and toxic chemicals, or the "community right-to-know." The community right-to-know enables public knowledge by providing information about facilities' use of chemicals and any release into the environment.

Federal Resource Conservation and Recovery Act

The Federal Resource Conservation and Recovery Act (RCRA) of 1976 established the authority of the U.S. Environmental Protection Agency (U.S. EPA) to develop regulations to track and control hazardous substances from their production, through their use, to their disposal. The U.S. EPA has the authority under RCRA to authorize states to implement RCRA, and California is an RCRA authorized state. California Code of Regulations (CCR) Title 40, Part 290 establishes technical standards and corrective action requirements for owners and operators of underground storage tanks (USTs) under RCRA.

5.7.2.2 State

California EPA

The California EPA (Cal EPA) and the SWRCB establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable state and local laws include the following:

- Public Safety/Fire Regulations/Building Codes
- Hazardous Waste Control Law
- Hazardous Substances Information and Training Act
- Underground Storage of Hazardous Substances Act

State Water Resources Control Board

The SWRCB maintains the GeoTracker database, a data management system used for managing sites that impact groundwater, especially those that require groundwater cleanup from leaking underground storage tanks (LUSTs) as well as permitted facilities such as operating USTs and land disposal sites. LUSTs are a significant source of petroleum impacts to groundwater and can also result in potential threats to health and safety.

Department of Toxic Substances Control

Within Cal EPA, the DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law.

The DTSC regulates hazardous waste primarily under the authority of the federal RCRA and Title 22 of the California Public Health and Safety Code. The DTSC regulates hazardous waste, maintains a public database (EnviroStor) of potentially contaminated properties, cleans up existing contamination, and researches ways to reduce the hazardous waste produced in California.

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 comply with California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials sites. The DTSC is responsible for preparing a portion of the information that comprises the Cortese List, through its EnviroStor database of sites listed pursuant to Section 25256 of the Health and Safety Code. This includes a listing of hazardous substance release sites selected for, and subject to, a response action. EnviroStor must update the list of sites at least annually to reflect new information regarding previously listed sites or the addition of new sites requiring a response action.

Hazardous Waste Control

Hazardous waste control (California Health and Safety Code, Section 25100 et seq.) is intended to protect the public health and the environment and to regulate hazardous waste generation and hazardous waste management practices. The DTSC is responsible for the enforcement of this act and lists chemicals and materials that may be hazardous. It also establishes criteria for identification for packaging and labeling of hazardous waste, management controls, and permit requirements for treatment, storage, disposal, and transportation.

Medical Waste Management Act

The California Health and Safety Code (Sections 117600-118360) is defined by the California Medical Waste Management Act. This act regulates, in detail, medical waste transport.

Health and Safety Code and Occupational Safety and Health Administration

The California Health and Safety Code (H&SC) is the collection of state laws that govern the handling of hazardous waste, corrective action (remediation), and permitted facilities. Chapter 6.7 of the H&SC outlines the requirements for USTs, identifies requirements for corrective actions, cleanup funds, liability, and the responsibilities of owners and operators

of USTs. The LUST Information System maintained by the SWRCB is available to determine if LUSTs have been reported within or near a specified property.

The California Occupational Safety and Health Administration, or Cal-OSHA, defines and enforces worker safety standards and requires proper handling and disposal of hazardous materials including asbestos containing materials and lead containing surfaces according to the Occupational Safety and Health Act and EPA regulations. The Occupational Safety and Health Act /EPA Occupational Chemical Database compiles information from several government agencies and organizations. This database provides reports on physical properties, exposure guidelines, and emergency response information, including the U.S. Department of Transportation (DOT) emergency response guide.

2016 California Fire Code

The 2016 California Fire Code establishes the minimum requirements consistent with best practices to safeguard public health and safety from fire and explosive hazards and dangerous conditions in new and existing development throughout California.

Jurisdictions may choose to adopt the 2016 California Fire Code as an enforceable set of regulations for safeguarding life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, material and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises. Chapter 15.36.010 of the City of Chula Vista's (City) Municipal Code adopts the 2016 California Fire Code.

Fire Hazard Severity Zones

To assist each fire agency in addressing its responsibility area, the California Department of Forestry and Fire (CAL FIRE) uses a severity classification system to identify areas or zones of severity for fire hazards within the state. CAL FIRE is required to map these zones for State Responsibility Areas and identify Very High Fire Hazard Severity Zones (VHFHSZ) for Local Responsibility Areas (LRAs).

Fire Hazard Severity Zone maps identify moderate, high, and very high hazard severity zones using a science-based and field-tested computer model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior. Factors considered include fire history, existing and potential fuel (natural vegetation), flame length, blowing embers, terrain, and typical weather for the area.

Government Code Section 51179 states, "A local agency shall designate, by ordinance, very high fire hazard severity zones in its jurisdiction…" Title 15 of the Chula Vista Municipal Code (CVMC) provides regulations regarding fire prevention in the City and adopts the California Fire Code. The Fire Hazard Severity Zone map is adopted through CVMC 15.34.

5.7.2.3 County

County of San Diego Department of Environmental Health

The County of San Diego's Department of Environmental Health (DEH), Hazardous Materials Division (HMD) is one of the four divisions of the DEH. HMD is the Certified Unified Program Agency (CUPA) for San Diego County, responsible for regulating facilities that handle or store hazardous materials, are a part of the California Accidental Release Prevention Program, generates or treats hazardous/medical waste, stores at least 1,320 gallons of aboveground petroleum, and owns or operates underground storage tanks.

Section 65850.2 of the California Government Code prohibits the Building Department from issuing a final Certificate of Occupancy until a specific plan check review process has been completed.

(1) Hazardous Materials Business Plan (HMBP) – The HMBP provides detailed information regarding the storage of any hazardous materials in order to prevent or minimize the potential or threatened release of hazardous materials into the environment that may impact public health and safety.

(2) California Accidental Release Prevention (CalARP) – The DEH is the local agency responsible for implementing the CalARP, a state-mandated program. The CalARP focuses on prevention through awareness by reducing the potential of the release of extremely poisonous gases such as chlorine, ammonia, sulfur dioxide, and/or other toxic materials. Facilities that handle such materials are required to have a Risk Management Program (RMP) in place.

(3) Certify and submit a RMP – The RMP outlines and analyzes worst-case scenarios as it relates to the community, provides an emergency response plan, equipment procedures and training, mitigation or accidental release plan, prevention programs, and hazard and location assessments.

County of San Diego Office of Emergency Services

The County of San Diego Office of Emergency Services (OES) coordinates the overall county response to disasters. OES is responsible for notifying appropriate agencies when a disaster occurs; coordinating all responding agencies; ensuring resources are available and mobilized; developing plans and procedures for response to and recovery from disasters; and developing and providing preparedness materials for the public.

OES staffs the Operational Area Emergency Operations Center, a central facility that provides regional coordinated emergency response, and also acts as staff to the Unified Disaster Council (UDC), its governing body. The UDC, established through a joint powers agreement among all 18 incorporated cities and the County of San Diego, provides for coordination of plans and programs countywide to ensure protection of life and property.

5.7.2.4 Local

City of Chula Vista General Plan

The Environmental Element of the City General Plan contains policies focused on safe storing and handling of hazardous materials and waste. Policies relevant to the project include the following:

OBJECTIVE E 20

Ensure that facilities using, storing, and handling hazardous materials and waste do not result in significant adverse effects to existing and planned surrounding land uses.

Policy E 20.2: Through the environmental review of proposed developments, in accordance with CEQA, the City shall ensure that significant and potentially significant adverse effects from facilities using, storing, and handling hazardous materials and waste to existing and planned surrounding land uses will be avoided.

Policy E 20.3: Prior to the issuance or renewal of business licenses for businesses involving hazardous materials and/or generating hazardous waste, the City shall continue to require licensees to prepare and submit an acceptable Business Plan and Risk Management Prevention Program to the County DEH, as applicable, and to obtain all other necessary licenses and permits.

Multi-Jurisdictional Hazard Mitigation Plan

The Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) is a countywide plan that identifies risks and ways to minimize damage by natural and manmade disasters. The plan is a comprehensive resource document that serves many purposes such as enhancing public awareness, creating a decision tool for management, promoting compliance with state and federal program requirements, enhancing local policies for hazard mitigation capability, and providing inter-jurisdictional coordination. The County's plan was last revised in 2018 and is currently being revised to reflect changes to both the hazards threatening San Diego as well as the programs in place to minimize or eliminate those hazards.

The City specific hazard mitigation goals, objectives, and related potential actions are included in the MJHMP (County of San Diego OES 2018). A primary goal of the City's Hazardous Mitigation Plan is to reduce potential exposure to hazardous materials through increased security of storage and provide guidelines in the usage of hazardous materials.

5.7.3 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to hazards or hazardous materials would be significant if the project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

2. 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.

3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

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

6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

5.7.4 Impacts

<u>Threshold 1: Hazardous Materials Transport, Use, and Storage</u>

Operational

Project day-to-day operations would involve hazardous materials that could expose hospital staff, patients, visitors, and/or the environment. However, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials because the behavioral health hospital is mandated to appropriately manage, handle, use, transport, store, and dispose of all hazardous materials and waste in accordance with applicable federal, state, and local laws described above, and manifestation of these laws would be prescribed in the HMBP and RMP. Additionally, hospital operations require adherence to regulation elating to the safe handling of biohazards, medical, and radioactive waste.

Biohazardous materials are materials containing certain infectious agents such as bacteria, viruses, and other pathogens capable of causing or contributing to increased human mortality. Medical wastes include biohazards and “sharps,” such as needles, razor blades, broken glass generated from the diagnosis, treatment, or immunization of human

beings. Medical waste is regulated under the California Medical Waste Management Act (Health and Safety Code Sections 117600-118360), through the Medical Waste Management Program (CCR Title 22, Section 65600-65628 [non-consecutive]), and by the San Diego County DEH, Hazardous Materials Division. Medical waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment, and transportation. As specified under the Medical Waste Management Program, the project would not treat or incinerate medical waste on-site, but would process such waste for transportation, using licensed transporters. Biohazard waste and sharps would be locked and sealed at the loading dock within a protected fenced and roofed staging area where workers have access to a spill kit and safety shower. After the wastes and sharps are picked up, the items would be disposed of at an off-site permitted facility.

In summary, applicable federal, state, and local laws governing the transportation, use, handling, storage, management, and disposal of hazardous materials and waste, biohazards, medical waste, and radioactive materials are intended to protect public safety, health, and welfare and the environment. Project activities and operations are required to and would comply with such laws. Therefore, potential impacts relative to project-related operational hazards would be less than significant.

Construction

Construction activities associated with development of the project would involve temporary transport, management, handling, use, and storage of hazardous materials such as diesel fuels, lubricants, petroleum products, paints, solvents, and other typical chemicals required during construction. These activities could potentially expose workers, the public, and/or the environment to hazardous materials. Any potential exposure to hazardous materials would be handled in accordance with current and applicable federal, state, and local laws regarding the safe transport, handling, and management. Such laws include the federal OSHA of 1970 (29 United States Code Sections 650 et seq.) and the Cal-OSHA program (CCR Title 8, Section 330 et seq.). Compliance with existing regulations regarding the use or disposal of hazardous materials and wastes would prevent any adverse impacts on human health and safety from the proposed construction activities. Impacts related to hazardous materials during construction activities would be less than significant.

<u>Threshold 2: Hazard from Risk of Upset and Accident Conditions</u>

The HMBP and RMP prescribed under applicable laws described above would ensure prevention and awareness in the event of a hazardous materials release. Other plans, described in the City chapter in the MJHMP and the City General Plan identify the risks of a hazardous event and the steps involved to ensure potential impacts are managed and contained. Required preparation of, and compliance with, plans including but not limited to the HMBP, RMP, and MJHMP would ensure that hazards from the risk of upset

and accident conditions would be managed and contained without significant harm to the public or environment. Impacts would be less than significant.

Threshold 3: Hazard Located Near Existing or Proposed School

There are three schools located with the vicinity of the project: Salt Creek Elementary School, Kid Ventures Montessori Academy, and Eastlake Middle School. These schools are located approximately 1.2 miles southeast, 0.2 mile south, and 1.5 miles east, respectively, of the project site. Kid Ventures Montessori Academy is located within one-quarter mile of the project. As noted previously, the project would adhere to regulatory requirements regarding all forms of handling, storage, and disposal of hazardous chemicals including biohazardous and radioactive waste. Therefore, the project would not expose schools to hazardous materials and substances, and impacts would be less than significant.

Threshold 4: Hazardous Waste Site

The site was graded in 2002 associated with the approved Eastlake Business Center II-Phase 2 grading plans but has remained vacant since that time. According to the SWRCB GeoTracker database, along with the California DTSC EnviroStor database, the project site and vicinity (one-mile radius) is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2020). Since no hazardous materials sites have been identified on or within the vicinity of the project site. No impact would occur.

Threshold 5: Airport Safety Hazard

The project site is located 5.1 miles west of John Nichol's Field Airport and 9.3 miles north of Brown Field Municipal Airport. John Nichol's Field Airport does not have an adopted ALUCP and the project is not located within the Brown Field Municipal Airport influence area (San Diego County Regional Airport Authority 2010). Therefore, the project would not result in a safety hazard for sensitive receptors in the project area, and no impacts related to airport hazards would occur.

Threshold 6: Interfere with Emergency Response Plans

The project would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan, as construction equipment staging areas would be restricted to on-site locations, and public roadways would not be impeded by construction operations. As indicated in the City's General Plan, Figure 8-5, the project is surrounded by evacuation routes located on East H Street which is 1.3 miles north, and Otay Lakes Road, which is 0.3 mile south of the project site (City of Chula Vista 2005a). The project would be directly linked to these evacuation routes via Lane Avenue and Fenton Street. The project would have adequate emergency access and would not

significantly impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be less than significant.

Threshold 7: Exposure to Wildland Fires

Wildland fires present a significant threat in the City, particularly in the summer months when temperatures are high and precipitation is limited. Areas in the City that are particularly susceptible to fires are designated as “very high hazard” or “high hazard” areas and are delineated on Figure 9-9 of the City’s General Plan: Wildland Fire Hazard Map. The project site is not identified within an area considered a “very high hazard” or “high hazard.” The project site is surrounded by developed lands and would not expose people or structures to a significant risk of loss, injury, or death from wildland fires. Impacts would be less than significant.

For additional discussion related to wildfire, see Section 5.13 of this EIR.

5.7.5 Level of Significance Prior to Mitigation

Inherent to the healthcare industry, day-to-day operations would involve hazardous materials that could expose hospital staff, patients, visitors, and/or the environment. However, the healthcare industry is heavily regulated and preparation of plans such as the HMBP, RMP, and MJHMP, as well as compliance with federal, state, and local laws and regulations, would preclude significant impacts relative to hazards and risk of upset. At the local level, the project would also comply with the County DEH’s AB 3205 plan check review in order to ensure that potential impacts related to hazards and hazardous materials would be less than significant.

No hazardous materials sites are located on or within the vicinity of the project site. The project site is not located within an airport land use plan, nor within two miles of a public airport or public use airport.

The project site is not identified within an area considered a “very high hazard” or “high hazard.” The project site is surrounded by developed lands and would not expose people or structures to a significant risk of loss, injury, or death from wildland fires. Impacts would be less than significant.

5.7.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.8 Hydrology and Water Quality

This section of the Environmental Impact Report (EIR) addresses potential for changes in drainage, runoff, and water quality resulting from implementation of the Eastlake Behavioral Health Hospital project (project). Information presented in this section is largely based on the Storm Water Quality Management Plan (SWQMP; see Appendix E) prepared by K&S Engineering, Inc. (K&S Engineering 2019a) and the project's Drainage Study (Appendix G) prepared by K&S Engineering, Inc. (K&S Engineering 2019b).

5.8.1 Existing Conditions

5.8.1.1 Existing Hydrology and Water Quality

Watershed Planning/Water Quality

Water quality refers to the effect of natural and human activities on the composition of water. Water quality is expressed in terms of measurable physical and chemical qualities that can be related to planned water use. Within the City of Chula Vista (City), urban runoff is transmitted directly to the storm drain system (rather than the sewer system). In general, storm water can potentially contain a host of pollutants such as trash and debris, bacteria and viruses, oil and grease, sediments, nutrients, metals, and toxic chemicals. These contaminants can adversely affect receiving and coastal waters, flora and fauna and public health. Water quality issues are especially prevalent during rainy periods; however, due to urban runoff (e.g., irrigation or car washing) that is transferred to the storm drain system, pollution can be a year-round problem. Combinations of urban runoff, agricultural runoff, resource extraction, and septic systems affect surface water and ground water quality.

The State Water Resources Control Board (SWRCB) uses watershed planning to improve and protect the quality of local and regional waters. Watersheds are the areas above and below ground that drain into a particular water body. The project site lies within the Sweetwater Hydrologic Unit (HU; 909) and is part of the Lower Sweetwater, Telegraph Hydrologic Subarea (HAS; 909.110). The Sweetwater HU encompasses over 145,000 acres and has four major water bodies: Sweetwater River, Sweetwater Reservoir, Loveland Reservoir, and San Diego Bay. The project site is tributary to Telegraph Canyon Creek and the San Diego Bay, both listed on the Clean Water Act (CWA) Section 303(d) list of impaired water bodies due to polychlorinated biphenyls (PCBs) and selenium. For water bodies placed on the 303(d) list, states are required to develop total maximum daily loads (TMDLs) for the pollutant(s) that are causing standard impairment. Once a water body is placed on the 303(d) list, it remains on the list until a TMDL is adopted and/or water quality standards are attained.

The project site totals 10.42 acres and proposes the introduction of 6.2 acres (70 percent of the site) of impervious area to the HAS including sidewalks, parking area, and the building.

Drainage

The project site is currently graded and runoff sheet flows into two existing desilting basins located at the south side of the project site. One drains to an existing 24-inch storm drain located within Showroom Place. The second desilting basin drains east to an existing 18-inch storm drain located within Yosemite Drive in the Eastlake III Woods subdivision. In its existing condition, the runoff velocity is at a rate of 24.2 cubic feet per second (cfs).

Flood Hazards

Chula Vista operates and maintains its own drainage and flood control facilities. The system is made up of improved and unimproved flood control channels, storm drains, bridge crossings, detention basins, and many miles of storm drain pipes. Drainages within the City are maintained by the City to keep them free of invasive plants and debris that can create blockages and flooding. The Upper and Lower Otay reservoirs are used by the City of San Diego as municipal water storage and are used for flood control. During severe rain seasons, low-lying areas along the floodplains of the Sweetwater and Otay rivers and tributaries may experience flooding. Dams, levees, reservoirs, and drainage channels have been constructed as flood control measures in potentially hazardous areas. In the event of a dam failure, inundation poses a serious risk in the Sweetwater and Otay River valleys.

As shown in Figure 5.8-1, the project site and immediate surrounding areas are mapped as lying outside of 100- and 500-year flood zones. Accordingly, the potential for flooding of the site is considered low. Additionally, as shown in Figure 5.9-2 of the City General Plan Update FEIR, the project site is mapped as lying outside of dam failure inundation zones (City of Chula Vista 2005c).

Image Source: Nearmap (Flown May 2020)

0 Feet 800

Project Boundary

Measurement Locations

Flood Areas

A

X

FIGURE 5.8-1

FEMA Flood Areas

RECON

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5.8.2 Regulatory Setting

5.8.2.1 Federal

The Federal Clean Water Act

The CWA established a broad national program for protecting water quality and regulating discharges of waste and pollutants into waters of the United States (Title 33, United States Code, Section 1251 *et seq*.). It provides authority for establishment of water quality standards and waste discharge limits for point source discharges (such as those from industrial facilities, sewage treatment plants, and storm water). The act also prohibits discharges of pollutants without a permit or other authorization and allows states to implement provisions of the act in lieu of the United States Environmental Protection Agency (U.S. EPA).

Section 401 of the CWA requires certification from the state for any applicant applying for a federal permit to conduct any activity that may result in the discharge of any pollutant. This process is known as the Water Quality Certification. Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES) permit program to regulate the discharge of pollutants from point sources and discharge pollutants into waters of the United States.

In the state of California, the U.S. EPA has authorized the permitting authority to implement the NPDES program. In general, the SWRCB issues two baseline general permits: one for industrial discharges and one for construction activities. Rather than setting numeric effluent limitations for storm water and urban runoff, CWA regulation calls for the implementation of best management practices (BMPs). BMPs reduce or prevent the discharge of pollutants to the Maximum Extent Practicable and aim to meet the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology standards for construction storm water. Regulations and permits have been implemented at the federal, state, and local level to form a comprehensive regulatory framework to serve and protect the quality of the nation's surface water and ground water resources.

Under Section 303(d) of the CWA, states and territories are required to develop a list of water quality limited segments for jurisdictional waters of the United States. The waters on the list are those that do not meet water quality standards, even after point source polluters have installed the minimum required levels of pollution control technology.

As mentioned above, the CWA established the NPDES permit system that is implemented through the Regional Water Quality Control Boards (RWQCB). This system regulates both point source discharges and non-point source discharges to surface waters of the U.S. The NPDES permit for Region 9, which includes the City, is the 2013 Municipal Separate Storm Sewer System (MS4) Permit (Order No. R9-2013-0001, as

amended by R9-2015-0001 and R9-2015-0100). This permit requires that the City develop water quality plans that identify *project-level* water quality requirements. Projects are required to identify existing water quality conditions, potential pollutants of concern, and implement a comprehensive storm water management program to control pollutants of concern discharges to waters of the U.S.

National Flood Insurance Act

The National Flood Insurance Act (1968) established the National Flood Insurance Program (NFIP), which is based on the minimal requirements for floodplain management and is designed to minimize flood damage within Special Flood Hazard Areas (SFHAs). FEMA administrates the NFIP. SFHAs are defined as areas that have a 1 percent chance of flooding within a given year (i.e., the 100-year flood). FIRMs were developed to identify areas of flood hazards within a community.

5.8.2.2 State

The California Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act of 1969 established the principal legal and regulatory framework for water quality control (California Water Code, Division 7, Section 13000 *et seq*.). The California Water Code authorizes the SWRCB to implement the provisions of the Federal Clean Water Act. The state of California is divided into nine regions governed by the RWQCB. The RWQCB implement and enforce provisions of the California Water Code and the CWA under the oversight of the SWRCB. The Porter–Cologne Act also provides for the development and periodic review of Water Quality Control Plans that designate beneficial uses of California's major rivers and ground water basins and establish water quality objectives for those waters. Under the Porter-Cologne Act, "waters of the state" include both surface and ground water. Any entity or person proposing to discharge waste within any region of the state must file a Report of Waste Discharge with the appropriate regional board.

5.8.2.3 Local

San Diego Bay Water Quality Improvement Plan

The San Diego RWQCB develops and enforces water quality objectives and implements plans to protect the area's waters. The RWQCB adopted the MS4 Permit, establishing a watershed based approach to preserving water quality and implementing storm water programs. The San Diego Bay Water Quality Improvement Plan (WQIP) (San Diego Regional Water Quality Control Board 2016) represents the MS4 requirement for the San Diego Bay Watershed Management Area, which includes the Sweetwater HU. The San Diego Bay WQIP was developed and identified goals, strategies, and schedules to improve water quality throughout the watershed. It identifies priority conditions which

require focused improvement plans. The additional purpose of the WQIP is to guide local Jurisdictional Runoff Management Programs (JRMPs) towards achieving improved water quality.

City of Chula Vista General Plan

The Environmental Element of the City's General Plan specifically addresses the improvement of water quality. The following objective and policies found in the Environmental Element are relevant to the project:

OBJECTIVE E 2

Protect and improve water quality within surface water bodies and groundwater resources within and downstream of Chula Vista.

Policy E 2.3: Educate residents, business owners and City departments about feasible methods to minimize the discharge of pollutants into natural drainages and the municipal storm drainage system.

Policy E 2.4: Ensure compliance with current federal and state water quality regulations, including the implementation of applicable NPDES requirements and the City's Pollution Prevention Policy.

Policy E 2.5: Encourage and facilitate construction and land development techniques that minimize water quality impacts from urban development.

The Public Facilities and Services (PFS) Element of the City's General Plan establishes the requirement for reliable drainage facilities. The following objective and policy found in the PFS Element is relevant to the project:

OBJECTIVE PFS 1

Ensure adequate and reliable water, sewer, and drainage service and facilities.

Policy PFS 1.4: For new development, require on-site detention of storm water flows such that, where practical, existing downstream structures will not be overloaded. Slow runoff and maximize on-site infiltration of runoff.

The Growth Management (GM) Element of the General Plan provides integrated components that create an overall Growth Management Program (GMP). Specifically, the GM Element seeks to ensure public facilities and services are available to residents and visitors of the City concurrent with development. The City's GMP establishes the basis for Threshold Standards for City facilities and services, including drainage.

The following objective and policies found in the GM Element are relevant to the project:

OBJECTIVE 1

Concurrent public facilities and services.

Policy GM 1.11: Establish the authority to withhold discretionary approvals and subsequent building permits from projects demonstrated to be out of compliance with applicable Threshold Standards.

City of Chula Vista Jurisdictional Runoff Management Program

The City's JRMP (updated 2018) presents strategies to reduce the discharge of pollutants into the storm drain system. The strategies include requirements for development projects to use BMPs during construction and throughout operation. The JRMP interacts with other water quality provisions of City regulations to ensure consistency among documents and to strengthen enforcement and monitoring of long-term BMPs (City of Chula Vista 2015a).

City of Chula Vista Best Management Practices Design Manual

The City's BMPs Design Manual (BMPDM), updated March 2019, provides guidance for land development and public improvement projects to comply with the 2013 MS4 Permit. The BPMDM addresses on-site post-construction storm water requirements. Specific requirements include Low Impact Development (LID) BMPs, which seek to minimize impervious surface areas and promote infiltration. Other requirements incorporate hydromodification principles by controlling runoff discharge rates and durations (City of Chula Vista 2015b).

Chula Vista Municipal Code

Chula Vista Municipal Code (CVMC) Title 15, Section 15.04.005, also known as the Grading Ordinance, establishes minimum requirements for land development work, to provide for the issuance of permits and for the enforcement of the requirements. Specifically, CVMC Section 15.04.018 requires all land development activity to meet the requirements of this chapter, CVMC Chapter 14.20 and the City BMPDM, December 2015. Additionally, CVMC Section 15.04.270 requires requests for land development applications to include the submittal of plans showing all proposed drainage devices and facilities. Under the CVMC, all building sites are required to drain to an approved drainage facility unless otherwise approved by the City Engineer (CVMC Section 15.04.045).

CVMC Title 14, Section 14.20.120 provides that activities which may result in pollutants entering the storm water conveyance system shall undertake all measures, to the maximum extent practical, to reduce the risk of such discharges. BMPs and other pollution control requirements are required to eliminate or reduce pollutants entering the City's storm water conveyance system (CVMC Section 14.20.120(A)).

CVMC Section 19.09, *et seq*. (Growth Management Ordinance; GMO) delineates the City's Threshold Standards for City facilities and services. The GMO is intended to implement the policy framework established by the City's General Plan and GMP. CVMC Section 19.09.040 identifies the Thresholds Standards for the maintenance and improvement of the current level of services related to sewer. CVMC Section 19.09.050 identifies the Threshold Standard to ensure adequate storage, treatment, and transmission of water. The City Threshold Standards are included in Section 5.8.3.

5.8.3 Thresholds of Significance

Consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts related to hydrology and water quality would be significant if the project would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
2. Substantially decrease ground water supplies or interfere substantially with ground water supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would:
    - Result in substantial erosion or siltation on- or off-site.
    - Substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site.
    - Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.
    - Impede or redirect flood flows.
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

City Threshold Standards relevant to this section, as delineated in CVMC Section 19.09.040, includes the following:

- Section 19.09.040F (Drainage) specifically requires that storm water flows and volumes shall not exceed city engineering standards and shall comply with current local, state and federal regulations.

5.8.4 Impacts

Threshold 1: Violate water quality standards or waste discharge requirements

Implementation of the project would result in the construction of 270,274 square feet of new impervious surfaces throughout the project site, including sidewalks, parking areas, and a new structure. Runoff from the project site currently drains to Telegraph Canyon Creek and the San Diego Bay, both of which are impaired water bodies. The increase in impervious areas could lead to increased flows of storm water runoff that could negatively affect water quality in downstream waterbodies during both construction and operation of the project. The City's GM Element, in concert with CVMC Section 19.09 requires that all new development comply with current local, state, and federal regulations. The project would include design measures to ensure that potentially polluted runoff is avoided to the greatest amount feasible during both project construction and operation.

Temporary Construction Activities

Proposed grading, excavation, and construction activities associated with the project could create a substantial additional source of polluted runoff which could have short-term impacts on surface water quality. Construction activities could include; clearing and grading; excavation; stockpiling of soils and materials; and other typical construction activities. Pollutants associated with construction would degrade water quality if they are washed into surface waters. Sediment is often the most common pollutant associated with construction sites because of the associated earth-moving activities and areas of exposed soil. Hydrocarbons such as fuels, asphalt materials, oils, and hazardous materials such as paints and concrete discharged from construction sites could also result in impacts downstream. Debris and trash could be washed into existing storm drainage channels to downstream surface waters. These activities could impact off-site aquatic habitat, upland wildlife, and aesthetic land values.

Project construction activities must comply with the requirements outlined in the CVMC, JRMP, and BMPDM. Consistent with these requirements, the SWQMP prepared for the project identified a preliminary list of BMPs, which would be implemented as project design features, to minimize disturbance, protect slopes, reduce erosion, and limit or prevent various pollutants from entering surface water runoff. The project's temporary construction BMPs would include the following: street sweeping, waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, and proper handling and storage of hazardous materials. Typical erosion and sediment control measures include: silt fences; fiber rolls; gravel bags; temporary desilting basins; velocity check dams; temporary ditches or swales; storm water inlet protection; and soil stabilization measures. Implementation of these measures, as project design features, would assure that short-term impacts from

construction-related activities would not violate any water quality standards or waste discharge requirements.

Project Operational Activities

Operation of the project would have the potential to generate pollutants and storm water runoff. For example, sediment discharge due to post-construction areas left bare; nutrients from fertilizers; commercial/hospital hazardous waste that is improperly disposed of; trash and debris deposited in drain inlets; oil and grease, by products resulting from vehicles; heavy metals; bacteria and viruses; and pesticides from landscaping. The project would comply with the City's General Plan policies relating to protecting and improving water quality, including Policies E 2.3 through E 2.5. These policies require new development to utilize feasible methods to minimize storm water discharge. Pursuant to the project's SWQMP, the project is a Priority Development Project in which site design, source control, and structural pollutant control measures apply (see Appendix E, SWQMP). The SWQMP provides examples of BMPs which would be included as project features. These features are consistent with the requirements of the CVMC, JRMP, and BMPDM. Site design BMPS are proposed to maintain ongoing reduction of potential polluted runoff during project operation. For example, the project includes landscaping of all pervious areas to ensure loose soils are eradicated and rain and irrigation are absorbed into vegetation. Source control and structural BMPs are proposed to treat potentially polluted runoff prior to entering the storm drain system. The project includes on-site storm drain inlets which would include signage and stenciling advising of downstream habitats. Additionally, the project includes two biofiltration basins for hydromodification (reduction of runoff volume) and pollution control. The location of the biofiltration basins and other proposed BMPS are shown in Figure 3-11.

In order to assure ongoing operation of the project's storm water BMPs, the BMPDM requires the consideration of the source of funding for long-term maintenance of on-site BMPs. It is noted in the project's SWQMP that structural BMPs must be maintained in perpetuity and the City would be required to confirm a long-term maintenance plan, prior to project approval.

Overall, implementation of site design, source control, and structural pollutant control measures would preclude any violations of applicable standards and discharge regulations, ensuring that the project would be consistent with the City's Threshold Standards. Therefore, project impacts, associated with construction and long-term operations would be less than significant.

<u>Threshold 2: Deplete Ground Water Reserves or Alter Ground Water Quality</u>

The project would not use ground water sources and would instead connect to the Otay Water District existing public water system. Construction activities would not involve

pumping of ground water. In addition, the foundation excavations would not extend below the ground water table. Therefore, no impacts to groundwater would occur.

Threshold 3: Alter the Existing Drainage Pattern of the Project Site

Result in Substantial Erosion or Siltation On- or Off-site

Runoff from the project site currently flows to into two existing desilting basins located at the south side of the project site. Hydromodification is the alteration of the natural flow of water through a landscape. Failure to adjust for hydromodification in project designs could result in increased impairment of downstream waterbodies due to increased erosion and sedimentation as flows increase or drainage patterns are changed. Construction and operation of the project could result in changes to the volume and/or velocity of runoff which flows from the project site resulting in increased erosion or siltation.

TEMPORARY CONSTRUCTION ACTIVITIES

Project grading, excavation, and construction activities could increase the potential for erosion and siltation.

As discussed above, a SWQMP was prepared for the project providing a preliminary list of BMPs as project design features to be employed during temporary construction activities. These measures are consistent with the requirements of the MS4 Permit and City storm water standards. The implementation of these features would avoid erosion and water quality impacts by minimizing site disturbance during construction.

LONG-TERM POST CONSTRUCTION USES

The project would construct 270,274 square feet of new impervious surfaces throughout the project site, including sidewalks, parking areas, and a new structure. Allowing the permanent development of impervious surfaces could increase runoff and potentially result in new or the worsening of existing erosion due to increase volume and velocity of storm water runoff. State and local regulations including the NPDES and the BMPDM require the development of a hydromodification management plan. The project's SWQMP identifies the inclusion of two biofiltration basins as structural BMPs and hydromodification which would assist in the reduction of storm water flow volume and velocity. Specifically, the project would continue to drain to the south where the two detention basins would temporarily store the increased runoff, allowing saturation, before release and slowing increased project runoff. As analyzed by the Drainage Study prepared for the project (see Appendix G), and shown in Table 5.8-1, the project would decrease peak runoff volumes and flow rate compared to the existing.

TABLE 5.8-1 PEAK FLOW AT DETENTION BASINS (cfs)		
Existing Condition	Proposed Condition Before Detention	Proposed Condition After Detention
Basin 1		
13.4	24.5	10.7
Basin 2		
10.8	17.6	7.8
SOURCE: Drainage Study (see Appendix G). cfs = cubic feet per second		

Therefore, under post-development conditions, the detention basins, would allow the project to decrease runoff volumes that would increase as a result of the new impervious areas. The proposed detention basins are designed for placement to catch the existing southern drainage flows and are adequately sized to store all the excessive runoff.

CONCLUSION

Overall, the construction and operation of the project could result in the alteration of drainage patterns in a manner which could result in substantial erosion or siltation, on- or off-site. The project would adhere to all relevant regulations, including County policies intended to reduce adverse effects associated with excessive erosion or siltation. The project would include the two on-site detention basins implementing City policies relating to storm water and drainage flows and ensuring compliance with federal and state permits. The project's impact on drainage patterns relating to erosion and siltation would be less than significant.

Result in Increasing the Rate of Surface Runoff in a Manner that would cause Flooding

The project site is not located in an area identified as being located within a 100-year flood hazard area as delineated on Figure 9-8: Flood and Dam Inundation Hazards Map of the City's General Plan (Chula Vista 2005a). As described above, the project would maintain the existing drainage pattern, and runoff would be released at a rate less than the existing. The project's impact on drainage patterns relating to flooding would be less than significant.

Result in Exceedance of Storm Water System

Generally, drainage facilities including storm drains, culverts, inlets, channels, curbs, roads, or other such structures are designed to prevent flooding by collecting storm water runoff and directing flows to either the natural drainage course and/or away from urban development. The City's GMP establishes the requirement for new development to be designed to ensure adequate drainage facilities (see also CVMC Section 19.09.040). If drainage facilities are not adequately designed, built, or properly maintained, new runoff could exceed the capacity of the existing storm water system. As

discussed above, implementation of the project, including the development of new imperious surfaces could have the potential to substantially alter drainages and hydrology, during construction and post-construction activities, which would potentially increase volume and velocity of storm water runoff.

The City and its servicing districts strive to maintain existing public facilities to meet current and future demand, and to comply with federal, state, and local requirements (City's PFS Element Section 3.1.1). The project site is being developed as part of a master planned community in accordance with the Eastlake II General Development Plan (GDP). The project is an allowed use pursuant to the relevant planning documents including the Eastlake II GDP and Business Center II Supplemental Sectional Planning Area Plan that allows hospital uses subject to a Conditional Use Permit. Therefore, construction of the project has been anticipated which increases the City and service district's ability to schedule and construct needed improvements.

The project would be required to comply with the City's General Plan policies, including GM 1.1 and PFS 1.4, which assures that new developments do not overload existing facilities. Specifically, as previously discussed, the project would be required to minimize its storm water impacts and provide necessary on-site and off-site improvements to storm water runoff and drainage facilities. The project includes site design, source control, and structural pollutant control measures, including two biofiltration basins which would reduce runoff volume and velocity. Additionally, the project has developed a comprehensive drainage plan. As shown in Figure 3-11, runoff is maintained in its southern flow and directed into the two detention basins which would temporarily store runoff, allowing saturation, before release, thereby and slowing increased project runoff. Drainage flow would be reduced compared to the existing (see Table 5.8-1). The project storm water runoff would be transferred from the site to the existing 24-inch storm drain line located within the cul-de-sac at the terminus of Showplace Drive. No increase in pipe size or any off-site storm water facilities would be required. Overall, impacts associated with the exceedance of storm water drainage system capacity would be less than significant.

Result in Impeding or Redirecting Flood Flows

As previously discussed, the project has been designed to be in compliance with all relevant regulations, and would comply with the City's General Plan PFS and GM Elements. Through site design, source control and structural pollutant control measures, the project would maintain the existing southerly drainage flow, result in a reduction in storm water peak flows existing the site compared to the existing conditions, and would temporarily store runoff within two biofiltration basins, allowing saturation, before release into the City's storm drain system. Through regulatory compliance, and maximizing use of feasible BMPs, the project's impacts associated with impeding or redirecting flood flows would be less than significant.

Threshold 4: Release Pollutants due to Flood Hazard, Tsunami, or Seiche Zones

The project site is not located in an area identified as having a potential for flooding as delineated on Figure 9-8: Flood and Dam Inundation Hazards Map of the City's General Plan (Chula Vista 2005a). Additionally, the project site is located approximately 14 miles east of the Pacific Ocean. Therefore, no impact related to flood hazards, tsunamis, or seiche zones would occur.

Threshold 5: Conflict with Implementation of a Water Quality Control or Sustainable Groundwater Management Plan

As described above, the project would comply with the CVMC, JRMP, and BMPDM through implementation of the construction BMPs and post-construction BMPs documented in the SWQMP prepared for the project. As additionally described above, the project would not involve pumping of ground water, nor would the project's foundation excavations extend below the ground water table. Therefore, the project would not conflict with a water quality control plan or a sustainable groundwater management plan.

5.8.5 Level of Significance Prior to Mitigation

Project construction and operation would not violate water quality standards or waste discharge requirements, alter existing drainage patterns resulting in erosion or siltation, increased rates of runoff, exceed storm water capacity, or impede flood flows. The project includes construction, site design, source control, and structural pollutant control measures, including two biofiltration basins located on the southern boundary of the project site. Storm water runoff flows would be slowed, treated, and released to the City's storm water system which has adequate capacity to support the project runoff. The project would adhere to all federal, regional, and local water quality control plans to ensure that the project complies with the MS4 Permit and all relevant regulations. No groundwater would be affected, nor is the project site located within a flood hazard, tsunami, or seiche zones. All project impacts with respect to hydrology and water quality would be less than significant.

5.8.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.9 Noise

This section of the Environmental Impact Report (EIR) addresses the potential noise impacts resulting from construction and operation of the Eastlake Behavioral Health Hospital project (project). The discussion is based on the Noise Analysis (Appendix H) prepared for the project by RECON Environmental, Inc. (RECON 2019).

5.9.1 Existing Conditions

5.9.1.1 Existing Ambient Noise

Existing noise levels on and in the vicinity of the project site are described in Appendix H. Noise measurements were taken to obtain typical ambient noise levels at the project site and in the vicinity. A total of three 15-minute ground-floor measurements (5 feet above the ground) were taken. Measurements were made on and in the vicinity of the project site, as described below. The locations of the measurements are shown on Figure 5.9-1.

Measurement 1 was located at the northeast corner of the project site, approximately 400 feet west of Hunte Parkway and 200 feet northwest of Yosemite Drive. Noise levels were measured for 15 minutes. The main noise source at this location was vehicle traffic on Yosemite Drive. Secondary sources of noise included activities at Eastlake Middle School, and airplanes. Vehicle traffic on Yosemite Drive was counted during the measurement period. The average measured noise level was 52.4 A-weighted decibels one-hour equivalent noise level [dB(A) L_{eq}].

Measurement 2 was located near the northern project boundary, approximately 130 feet south of River Rock Road. Noise levels were measured for 15 minutes. The main noise source at this location was vehicle traffic on River Rock Road and airplanes. Secondary sources of noise included activities at Eastlake Middle School. Vehicle traffic on River Rock Road was counted during the measurement period. The average measured noise level was 48.8 dB(A) L_{eq}.

Measurement 3 was located at the southern project boundary at the end of the Showroom Place cul-de-sac. Noise levels were measured for 15 minutes. The main noise source at this location was vehicle traffic on Showroom Place. Secondary sources of noise included a vacuum, an intercom at Eastlake Middle School, and airplanes. Vehicle traffic on Showroom Place was counted during the measurement period. The average measured noise level was 46.4 dB(A) L_{eq}.

Image Source: Nearmap (Flown May 2020)

0 Feet 200

Project Boundary

Measurement Locations

FIGURE 5.9-1

Noise Measurement Locations

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5.9.2 Regulatory Setting

5.9.2.1 State

California Green Building Standards Code – Environmental Comfort

For nonresidential structures, Title 24, Chapter 12, Section 1207.5 refers to 2019 California Green Building Standards, Chapter 5 – Nonresidential Mandatory Measures, Division 5.5 – Environmental Quality, Section 5.507 – Environmental Comfort, Subsection 5.507.4 – Acoustical Control. Pursuant to these standards, all nonresidential building construction shall employ building assemblies and components that achieve a composite sound transmission class rating of at least 50 or shall otherwise demonstrate that exterior noise shall not result in interior noise environment where noise levels exceed 50 dB(A) L_{eq} in occupied areas during any hour of operation (California Code of Regulations 2019).

5.9.2.2 Local

City of Chula Vista General Plan

The Environmental Element of the City of Chula Vista (City) General Plan contains applicable noise/land use compatibility guidelines, which are shown in Table 5.9-1. As shown, noise sensitive uses such as the project are considered compatible when located in areas where exterior noise levels are 65 CNEL or less (City of Chula Vista 2005a). The project would be considered a "similar use considered noise sensitive" and proposes outdoor use areas. For the project, the City applies this exterior noise level standard at the proposed exterior use areas which include the six proposed exterior activity areas and the staff outdoor area.

TABLE 5.9-1
EXTERIOR LAND USE/NOISE COMPATIBILITY GUIDELINES

Land Use	CNEL					
	50	55	60	65	70	75
Residential						
Schools, Libraries, Daycare Facilities, Convalescent Homes, Outdoor Use Areas, and Other Similar Uses Considered Noise Sensitive						
Neighborhood Parks, Playgrounds						
Offices and Professional						
Places of Worship (excluding outdoor use areas)						
Golf Courses						
Retail and Wholesale Commercial, Restaurants, Movie Theaters						
Industrial, Manufacturing						

The following objectives and policies found in the Environmental Element are relevant to the project:

OBJECTIVE E 21

Protect people from excessive noise through careful land use planning and the incorporation of appropriate mitigation techniques.

Policy EE 21.1: Apply the exterior land use-noise compatibility guidelines contained in Table 9-2 of this Environmental Element to new development where applicable and in light of project-specific considerations.

Policy EE 21.2: Where applicable, the assessment and mitigation of interior noise levels shall adhere to the applicable requirements of the California Building Code with local amendments and other applicable established City standards.

Policy EE 21.3: Promote the use of available technologies in building construction to improve noise attenuation capacities.

OBJECTIVE E 22

Protect the community from the effects of transportation noise.

Policy EE 22.5: Require projects to construct appropriate mitigation measures in order to attenuate existing and projected traffic noise levels in accordance with applicable standards, including the exterior land use/noise compatibility guidelines contained in Table 9-2 of this Environmental Element.

City of Chula Vista Municipal Code

The City of Chula Municipal Code (CVMC) Title 19, Chapter 19.68, et seq. (Noise Control Ordinance) establishes noise criteria to prevent noise and vibration that may jeopardize the health or welfare of the City's citizens or degrade their quality of life.

ON-SITE GENERATED NOISE

CVMC Section 19.68.030 defines exterior noise standards for various receiving land uses. Receiving land uses from the project include primarily residential and commercial uses. The noise standards are not to be exceeded at the portion of a property used for a particular land use. For nuisance noise, the noise standards cannot be exceeded at any time. Examples of nuisance noise provided in the Noise Control Ordinance include pets in residential neighborhoods, private parties of limited duration, sound amplifiers and musical instruments, and any activities in commercial areas other than permitted uses. For environmental noise, the L_{eq} in any one hour cannot exceed the noise standards. These standards are shown in Table 5.9-2. The noise standards in Table 5.9-2 do not apply to construction activities.

TABLE 5.9-2
CITY OF CHULA VISTA EXTERIOR NOISE LIMITS

Receiving Land Use Category	Noise Level [dB(A)][1,2,3]	
	10:00 p.m. to 7:00 a.m. (Weekdays)	7:00 a.m. to 10:00 p.m. (Weekdays)
	10:00 p.m. to 8:00 a.m. (Weekends)	8:00 a.m. to 10:00 p.m. (Weekends)
All residential (except multiple dwelling)	45	55
Multiple dwelling residential	50	60
Commercial	60	65
Light Industry – I-R and I-L zone	70	70
Heavy Industry – I zone	80	80

SOURCE: CVMC Section 19.68.030.
[1] Environmental Noise – One-hour equivalent in any hour; Nuisance Noise – not to be exceeded any time
[2] According to CVMC Section 19,68,030(b)(2), if the alleged offensive noise contains a steady, audible sound such as a whine, screech or hum, or contains a repetitive impulsive noise such as hammering or riveting, the standard limits shall be reduced by 5 decibels.
[3] If the measured ambient level, measured when the alleged noise violation source is not operating, exceeds the standard noise limit, the allowable noise exposure standard shall be the ambient noise level.

Section 19.68.060(A) states that "Warning devices necessary for the protection of public safety, as, for example, police, fire and ambulance sirens, and train horns, are exempted from the provisions of this title."

CONSTRUCTION NOISE

Construction noise is regulated by CVMC Section 17.24.040, which prohibits construction and building work in residential zones that would cause noises disturbing to the peace, comfort, and quiet enjoyment of property of any person residing or working in the vicinity between the hours of 10:00 p.m. and 7:00 a.m., Monday through Friday, and between the hours of 10:00 p.m. and 8:00 a.m., Saturday and Sunday.

5.9.3 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to noise would be significant if the project would:

1. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2. Generate excessive ground borne vibration or ground borne noise levels.

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

5.9.4 Impacts

Threshold 1: Ambient Noise Levels

The determination of whether an impact would occur is based on the application of the analysis methodology set forth in Section 4.0 of the Noise Report prepared for the project (see Appendix H). As detailed therein, specific modeling was applied to determine whether construction, traffic, and on-site generated noise associated with the project would result in impacts above the identified thresholds.

Construction Noise

Construction equipment with a diesel engine typically generates maximum noise levels from 70 and 95 dB(A) maximum sound level (L_{max}) at a distance of 50 feet (Federal Highway Administration [FHWA] 2006). Table 5.9-3 summarizes typical construction equipment noise levels.

TABLE 5.9-3
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 kilovolt amps or less)	70	50%
Generator (more than 25 kilovolt amps)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
Impact Pile Driver (diesel or drop)	95	20%
In situ Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Roller	74	40%
Scraper	85	40%
Tractor	84	40%

TABLE 5.9-3 TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS		
Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%
Vibratory Pile Driver	95	20%
SOURCE: FHWA 2006. dB(A) L_{eq} = A-weighted decibels one-hour equivalent noise level		

Average construction noise levels were calculated for the simultaneous operation of three common pieces of construction equipment from Table 5.9-3: backhoe, excavator, and loader. The usage factors were applied to the maximum noise level at 50 feet for each piece of equipment, and then noise levels were added logarithmically. Hourly average noise levels would be approximately 85 dB(A) L_{eq} at 50 feet from the center of construction activity when assessing three pieces of common construction equipment working simultaneously. However, construction noise is considered a point source and would attenuate at approximately 6 dB(A) for every doubling of distance. To reflect the nature of grading and construction activities, equipment was modeled as an area source distributed over the project footprint. Noise levels were modeled at a series of 20 receivers located at the adjacent uses. The results are summarized in Table 5.9-4. Modeled receiver locations and construction noise contours are shown in Figure 5.9-2.

As shown in Table 5.9-4, construction noise levels would range from 56 to 68 dB(A) L_{eq} at the adjacent uses.

TABLE 5.9-4 CONSTRUCTION NOISE LEVELS		
Receiver	Land Use	Noise Level [dB(A) L_{eq}]
1	Residential	57
2	Residential	58
3	Residential	57
4	Residential	56
5	Residential	56
6	Residential	58
7	Residential	61
8	Residential	58
9	Residential	57
10	Residential	59
11	Residential	59
12	Residential	58
13	Residential	58
14	Commercial	62
15	Commercial	63
16	Commercial	63
17	Commercial	60
18	Commercial	57
19	Boat/RV Storage	68
20	Commercial	68
dB(A) L_{eq} = A-weighted decibels one-hour equivalent noise level		

Image Source: Nearmap (Flown May 2020)

Project Boundary

Construction Receivers

Construction Noise

60 dB(A) Leq

65 dB(A) Leq

70 dB(A) Leq

75 dB(A) Leq

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FIGURE 5.9-2

Construction Noise Contours

Although existing adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary. Additionally, construction activities would occur between the hours of 7:00 a.m. and 10:00 p.m. Monday through Friday, and between the hours of 8:00 a.m. and 10:00 p.m. Saturday and Sunday, as specified in the CVMC. Because construction activities associated with the project would comply with the applicable City zoning regulations for construction, temporary increases in noise levels from construction activities would be less than significant.

Traffic Noise (On-Site Impacts)

The main sources of vehicle traffic noise on the project site are Hunte Parkway, Fenton Street, Showroom Place, Yosemite Drive, and River Rock Road. Traffic parameters associated with these roads are shown in Table 5.9-5. The total project trip generation of 2,400 average daily traffic (ADT) was used to model vehicle traffic noise from Showroom Place (Linscott, Law & Greenspan, Engineers 2020).

TABLE 5.9-5
TRAFFIC PARAMETERS

Roadway	Average Daily Traffic	Speed (mph)	Vehicle Mix (percent)				
			Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles
Hunte Parkway	22,800	45	95	2	1	1	1
Fenton Street	24,800	35	95	2	1	1	1
Showroom Place	2,400	25	95	2	1	1	1
Yosemite Drive	1,200	25	95	2	1	1	1
River Rock Road	1,200	25	95	2	1	1	1

mph = miles per hour

The exterior noise level standard for the project's noise sensitive uses is 65 CNEL. To determine whether this standard would be met at the project's exterior use areas, which include the six proposed exterior activity areas and the staff outdoor area, on-site traffic noise level contours were developed. These contours take into account shielding provided by the proposed building and grading, but do not take in to account shielding due to adjacent buildings and are therefore conservative. Future vehicle traffic noise-level contours are shown in Figure 5.9-3. As shown in Table 5.9-6, noise levels at the exterior activity areas and the staff outdoor area would range from 31 to 45 CNEL. These noise levels at the exterior use areas would be compatible with the City's standard of 65 CNEL.

Image Source: Nearmap (Flown May 2020)

Project Boundary
Site Plan Lines
Receivers

Vehicle Traffic Noise
40 CNEL
45 CNEL
50 CNEL
55 CNEL
60 CNEL
65 CNEL

0 Feet 250

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FIGURE 5.9-3
Vehicle Traffic Noise Contours

Exterior noise levels at the building façade are projected to range from 38 to 51 CNEL. The interior noise level standard is 50 CNEL. When windows are open, standard construction techniques provide a 10 dB exterior-to-interior noise level reduction (FHWA 2011). Based on these standards, interior noise levels would be reduced to 41 CNEL or less. These interior noise levels would be compatible with the City's standard of 50 CNEL and would be less than significant.

TABLE 5.9-6
FUTURE VEHICLE TRAFFIC NOISE LEVELS

Receiver	Location	Exterior Noise Level (CNEL)
1	Staff Outdoor Area	41
2	Exterior Activity Area	34
3	Exterior Activity Area	40
4	Exterior Activity Area	45
5	Exterior Activity Area	32
6	Exterior Activity Area	31
7	Exterior Activity Area	36
8	Building Façade	39
9	Building Façade	41
10	Building Façade	50
11	Building Façade	50
12	Building Façade	48
13	Building Façade	51
14	Building Façade	40
15	Building Façade	38

CNEL = community noise equivalent level

Off-Site Traffic Noise

The additional vehicle trips associated with the project would increase noise levels on nearby roadways. A noise increase of 3 dB or more would be considered significant because 3 dB is the level at which an increase in noise is perceptible to a person. Traffic noise levels were calculated based on the anticipated future total ADT volumes on each roadway segment. Existing and future (year 2035) traffic volumes with and without the project were obtained from the project traffic impact analysis (Linscott, Law & Greenspan, Engineers 2020). Table 5.9-7 summarizes the future traffic volumes for the area roadway segments.

TABLE 5.9-7
FUTURE VEHICLE TRAFFIC PARAMETERS

Roadway Segment	Average Daily Traffic				Speed (mph)
	Existing	Existing + Project	Year 2035	Year 2035 + Project	
Otay Lakes Road					
State Route 125 Northbound Ramps to Eastlake Parkway	43,234	44,842	57,500	59,108	50
Eastlake Parkway to Lane Avenue	29,726	30,950	39,100	40,324	50
Lane Avenue to Fenton Street	19,207	20,431	29,200	30,424	50
Fenton Street to Hunte Parkway	18,747	19,131	29,200	29,584	50
East Hunte Parkway	10,674	10,722	29,300	29,348	50
Eastlake Parkway					
Fenton Street to Otay Lakes Road	23,249	23,825	27,500	28,076	40
Fenton Street					
Lane Avenue to Showroom Place	8,202	8,994	12,000	12,792	34
Showroom Place to Otay Lakes Road	6,256	7,864	10,200	11,808	34
Hunte Parkway					
Otay Lakes Road to Clubhouse Drive	14,911	15,079	19,400	19,568	45

SOURCE: Linscott, Law & Greenspan, Engineers 2020.
mph = miles per hour

Table 5.9-8 shows a conservative assessment of traffic noise levels based on the existing, existing plus project, year 2035, and year 2035 plus project noise levels generated by traffic. Modeled noise levels do not account for shielding provided by intervening barriers and structures. Table 5.9-8 also summarizes the direct and cumulative traffic noise level increases due to the project. As shown, direct off-site noise level increases due to the project would be 1 dB or less. Therefore, direct off-site noise impacts associated with the project traffic would be less than significant.

TABLE 5.9-8
TRAFFIC NOISE LEVEL WITH AND WITHOUT PROJECT AND AMBIENT NOISE INCREASES (CNEL)

Roadway Segment	Existing	Existing + Project	Direct Increase	Year 2035	Year 2035 + Project	Direct Increase	Cumulative Increase Over Existing
Otay Lakes Road							
State Route 125 Northbound Ramps to Eastlake Parkway	77	77	<1	78	78	<1	1
Eastlake Parkway to Lane Avenue	75	75	<1	75	76	1	1
Lane Avenue to Fenton Street	73	74	1	75	75	<1	2
Fenton Street to Hunte Parkway	73	74	1	75	75	<1	2
East Hunte Parkway	70	70	<1	75	75	<1	5
Eastlake Parkway							
Fenton Street to Otay Lakes Road	72	72	<1	72	73	1	1
Fenton Street							
Lane Avenue to Showroom Place	66	66	<1	68	68	<1	2
Showroom Place to Otay Lakes Road	65	66	1	67	68	1	3
Hunte Parkway							
Otay Lakes Road to Clubhouse Drive	71	71	<1	72	72	<1	1

CNEL = Community noise equivalent level

The total year 2035 plus project increase over the existing condition would range from less than 1 dB to 5 dB. However, the project's contribution to the increase over ambient noise levels would be 1 dB or less. Therefore, the project would result in a less than cumulatively

considerable off-site noise level increase, and cumulative traffic noise impacts associated with the project would be less than significant.

On-Site Generated Noise

The primary on-site noise sources from the project would be from heating, ventilating, and air conditioning equipment, an emergency generator, and truck deliveries and loading dock activities. Specifications relating to potential on-site noise sources are detailed in Section 4.3.1 of the Noise Study (see Appendix H). For a worst-case analysis, property line noise levels due to all noise sources were modeled and compared to the most restrictive nighttime CVMC limits. Typical noise levels without the continuous operation of the emergency generator were also modeled. Noise contours on and off-site associated with the on-site noise sources are shown in Figures 5.9-4a and 5.9-4b. Figure 5.9-4a shows the noise contours with operation of the emergency generator, and Figure 5.9-4b shows the noise contours without operation of the emergency generator. As shown in Table 5.9-9, property line noise levels with and without operation of the emergency generator are not projected to exceed the applicable residential and commercial CVMC limits. Therefore, impacts related to on-site generated noise at off-site locations would be less than significant.

TABLE 5.9-9
HEATING, VENTILATION, AND AIR CONDITIONING NOISE LEVELS AT ADJACENT PROPERTIES

Receiver	Land Use	Noise Level [dB(A) L_{eq}]		Noise Ordinance Limit Daytime/Nighttime [dB(A) L_{eq}]
		With Generator	Without Generator	
1	Residential	38	37	55/45
2	Residential	38	37	55/45
3	Residential	35	34	55/45
4	Residential	40	40	55/45
5	Residential	39	39	55/45
6	Residential	39	38	55/45
7	Residential	40	40	55/45
8	Residential	41	40	55/45
9	Residential	43	43	55/45
10	Residential	43	42	55/45
11	Residential	44	41	55/45
12	Residential	45	40	55/45
13	Commercial	49	42	65/60
14	Commercial	54	47	65/60
15	Commercial	54	51	65/60
16	Commercial	50	48	65/60
17	Boat/RV Storage	44	42	--
18	Boat/RV Storage	46	46	--
19	Commercial	45	45	65/60
20	Commercial	40	39	65/60

dB(A) L_{eq} = A-weighted decibels one-hour equivalent noise level

Image Source: Nearmap (Flown May 2020)

Project Boundary
Receivers
Site Plan Lines

Noise Sources
Emergency Generator
HVAC
Loading Docks
Delivery Trucks

On-Site Noise
40 dB(A) Leq
45 dB(A) Leq
50 dB(A) Leq
55 dB(A) Leq
60 dB(A) Leq
65 dB(A) Leq

FIGURE 5.9-4a

On-Site Generated Noise Contours with Emergency Generator

RECON

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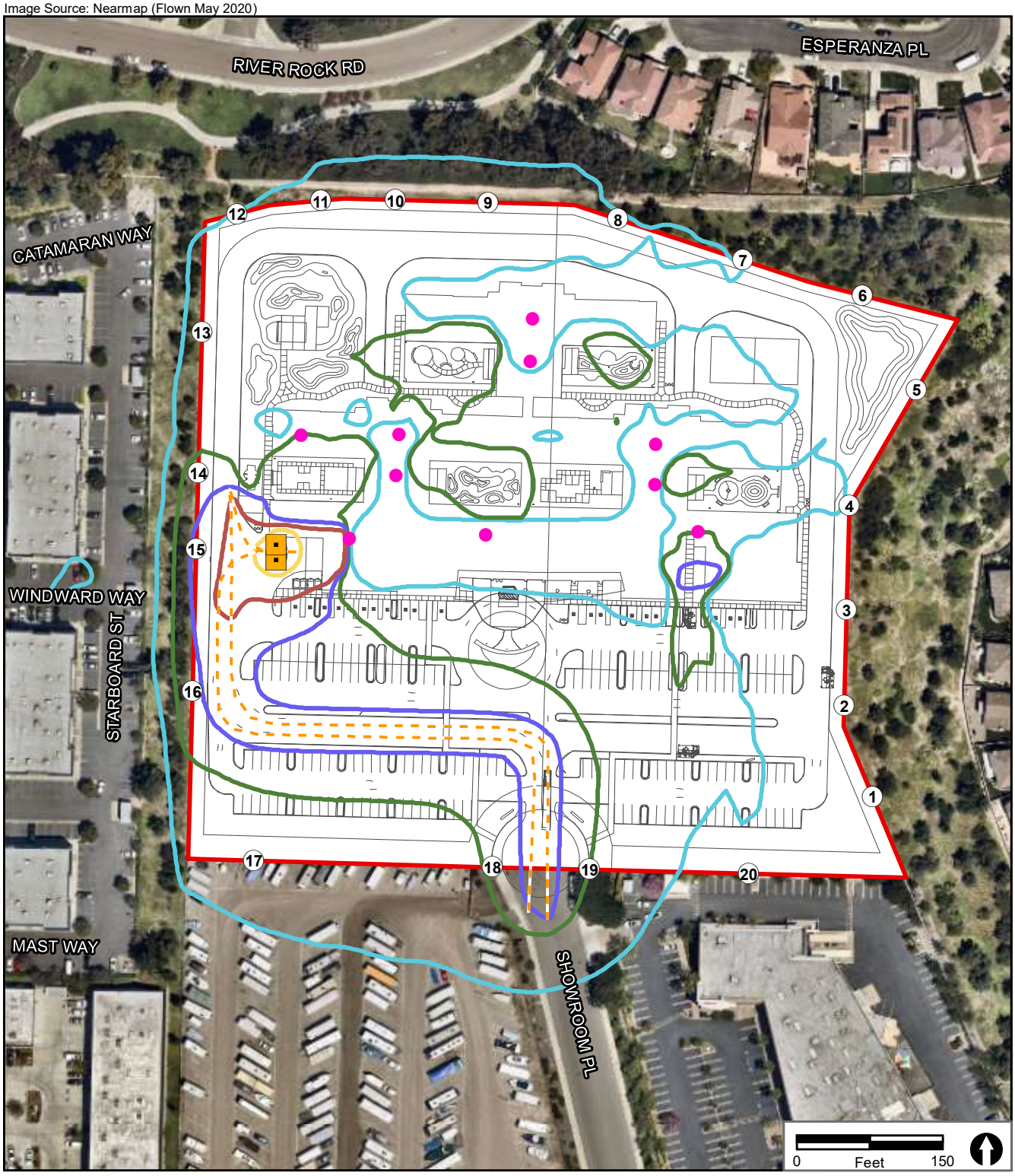
Image Source: Nearmap (Flown May 2020)



Project Boundary
Receivers
Site Plan Lines

Noise Sources
HVAC
Loading Docks
Delivery Trucks

On-Site Noise
40 dB(A) Leq
45 dB(A) Leq
50 dB(A) Leq
55 dB(A) Leq
60 dB(A) Leq
65 dB(A) Leq

FIGURE 5.9-4b

On-Site Generated Noise Contours without Emergency Generator

RECON

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Threshold 2: Ground Borne Vibration and Ground Borne Noise Levels

Vibration consists of energy waves transmitted through solid material (California Department of Transportation [Caltrans] 2013). Ground borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Ground borne vibration is measured by its peak particle velocity (PPV). The PPV is normally described in inches per second (in/sec). Human reaction to vibration is dependent on the environment the receiver is in as well as individual sensitivity. As example, vibration outdoors is rarely noticeable and generally not considered annoying. Typically, humans must be inside a structure for vibrations to become noticeable and/or annoying. Based on several federal studies, the threshold of perception is 0.035 PPV, with 0.24 in/sec PPV being a distinctly perceptible (Caltrans 2013).

Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and damage to nearby structures at the highest levels. Vibration perception would occur at structures, as people do not perceive vibrations without vibrating structures.

Project construction equipment used during site grading would have the greatest potential to generate vibrations that would affect nearby residential land uses. The nearest residential uses are located at least 100 feet from the project boundary. Large bulldozers would have the greatest potential to generate vibrations that would affect adjacent residential land uses. Vibration levels due to large bulldozers would be 0.089 in/sec PPV at 25 feet (Caltrans 2013). Using the Federal Transit Authority's recommended procedure for applying a propagation adjustment to vibration reference levels, the vibration level at the nearest residential use would be 0.011 in/sec PPV. As construction vibration levels would be below the distinctly perceptible threshold, ground borne vibration and noise impacts from construction would be less than significant.

No operational components of the project include significant ground borne noise or vibration sources and no significant vibrations sources currently exist, or are planned, in the project area. Thus, no significant ground borne noise or vibration impacts would occur with the operation of the project.

Threshold 3: Airports and Airport Land Use Plans

The project site is located 5.1 miles west of John Nichol's Field Airport and 9.3 miles north of Brown Field Municipal Airport. John Nichol's Field Airport does not have an adopted Airport Land Use Commission Plan (ALUCP) and the project is not located within the

Brown Field Municipal Airport influence area (Brown Field Municipal Airport ALUCP, San Diego County Regional Airport Authority 2010). Therefore, the project would not require Airport Land Use Commission (ALUC) review, nor is it subject to any noise or safety zone standards. No impacts would occur.

5.9.5 Level of Significance Prior to Mitigation

Exterior noise levels are predicted to exceed 65 CNEL. Although the existing adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary. Additionally, construction activities would occur between the hours of 7:00 a.m. and 10:00 p.m. Monday through Friday, and between the hours of 8:00 a.m. and 10:00 p.m. Saturday and Sunday, as specified in the CVMC. Because construction activities associated with the project would comply with the applicable regulation for construction, temporary increases in noise levels from construction activities would be less than significant. Exterior noise levels at the building façade are projected to range from 38 to 51 CNEL. The interior noise level standard is 50 CNEL. When windows are open, standard construction techniques provide a 10 dB exterior-to-interior noise level reduction (FHWA 2011). Based on these standards, interior noise levels would be reduced to 41 CNEL or less.

Additionally, direct off-site noise level increases due to the project would be 1 dB or less. Therefore, on- and off-site traffic noise impacts associated with the project traffic would be less than significant. On-site generated noise levels at the residential property lines would range from 35 to 45 dB(A) L_{eq} with the generator running and 34 to 43 dB(A) L_{eq} without the generator running. Noise levels would not exceed the single family residential CVMC limits. At the commercial property lines, noise levels would range from 40 to 54 dB(A) L_{eq} with the generator running and 39 to 51 dB(A) L_{eq} without the generator running. Noise levels would not exceed the commercial CVMC limits. Therefore, all impacts related to increased noise levels above ambient conditions would be less than significant.

Construction activities associated with the project would comply with the applicable regulations for construction, including ground borne vibration. Noise impacts from the project's generation of excessive ground borne vibration or ground borne noise levels would be less than significant.

The project site is located 5.1 miles west of John Nichol's Field Airport and 9.3 miles north of Brown Field Municipal Airport. John Nichol's Field Airport does not have an adopted Airport Land Use Compatibility Plan and the project is not located within the Brown Field Municipal Airport influence area (San Diego County Regional Airport Authority 2010). Therefore, the project would not require Airport Land Use Commission review, nor is it subject to any noise or safety zone standards. No impacts would occur.

5.9.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.10 Public Services and Recreation

This section of the Environmental Impact Report (EIR) addresses potential impacts to public services due to implementation of the Eastlake Behavioral Health Hospital project (project). Public services are those functions that serve residents on a communitywide basis. These functions include fire protection and emergency services, police protection, schools, parks, and libraries. Recreation is also included herein as the provision of adequate recreational facilities is an integral part of the public services and facilities provided by the City of Chula Vista (City) public services. The analysis within the following sections is based on information provided by the local service providers on City websites, findings from other approved planning documents, and technical reports related to the provision of public services.

5.10.1 Existing Conditions

5.10.1.1 Fire Protection and Emergency Services

The City of Chula Vista Fire Department (CVFD) provides fire protection, suppression, and safety services to the City. The CVFD currently maintains 10 fire stations throughout the City. CVFD responses include medical responses (85 percent), firefighting responses (10 percent), and hazardous materials, rescues, and public assistance responses (5 percent).

The project site is within the Engine Coverage Area of Fire Station 8 (CVFD 2012). Fire Station 8 opened in December 2006. The station is located approximately 0.8 mile southeast of the project site (1.2 on-road miles) at 1180 Woods Drive. Equipment at Fire Station 8 includes one Type I Engine, which is staffed with four firefighters and carries 500 gallons of water and various types of hose, along with rescue and emergency medical equipment (CVFD 2020). Additionally, Fire Station 6 is located approximately 1.0 mile northwest of the project site (1.6 on-road miles) at 605 Mount Miguel Road. Equipment at Fire Station 6 includes one Type I Engine and one Type III Brush Rig (CVFD 2020).

5.10.1.2 Police Protection

The Chula Vista Police Department (CVPD) staff includes 270 sworn officers and 108 civilian employees, and more than 100 volunteers. CVPD Headquarters is located at 315 Fourth Avenue, which is approximately 7.5 miles west of the project site. Organization is split into Patrol Operations, Investigations, Support Operations, and Administrative Services divisions. The CVPD average police response times are summarized in Table 5.10-1.

TABLE 5.10-1
AVERAGE POLICE RESPONSE TIMES (FISCAL YEAR 2020)

Category Time	Call Count	Response Time
Priority 1 – Emergency Calls *Life-threatening calls; felony in progress; probability of injury (crime or accident); robbery or panic alarms; urgent cover calls from officers*	471	6:14
Priority 2 – Urgent Calls *Misdemeanor in progress; possibility of injury; serious non-routine calls (domestic violence or other disturbances with potential for violence)*	14,943	14:47
SOURCE: CVPD 2020.		

5.10.1.3 Schools

The Chula Vista Elementary School District (CVESD) is a district that provides kindergarten through sixth grade schooling to approximately 298,000 residents in Chula Vista, Bonita, Sunnyside, and San Diego. The CVESD serves approximately 29,600 students in 49 elementary schools (CVESD 2020).

The Sweetwater Union High School District (SUHSD) operates middle schools and high schools, as well as adult and alternative schools in Chula Vista, Imperial Beach, National City, and San Diego.

5.10.1.4 Parks

The City's Parks and Recreation Master Plan inventoried communitywide facilities. As of January 2018, the citywide parks and recreation system is comprised of a variety of park types which are categorized as regional (Otay Valley Regional Park), community (9), neighborhood (38), mini (19), special purpose (14), town square (1), and urban park (1). Overall acreage of parks is approximately 718 acres (City of Chula Vista 2018).

Additional recreation facilities include community centers (9), gymnasiums (5), aquatic centers (2), and a senior center. Overall building area of recreation facilities is approximately 211,000 square feet.

5.10.1.5 Library

The City operates three library facilities: the Civic Center Branch Library, the South Chula Vista Branch Library, and the Otay Ranch Branch Library. The 2005 Chula Vista General Plan recognizes that demand for library facilities will continue to increase as the City's population grows in the eastern areas of the City through new development, and that location is the most important reason residents choose to utilize a particular public library.

5.10.2 Regulatory Setting

5.10.2.1 Local

City of Chula Vista General Plan

The Public Facilities and Services (PFS) Element of the City's General Plan establishes objectives to support sufficient levels of fire protection, emergency medical service, and police services to protect public safety and property; additional objectives support the development of the library system and parks and recreation system. The following objective and policies found in the PFS Element are relevant to the project:

OBJECTIVE 5

Maintain sufficient levels of fire protection, emergency medical service and police services to protect public safety and property.

Policy PFS 5.7: Prior to approval of any discretionary projects, ensure that construction is phased with provision of police and fire protection services such that services are provided prior to or concurrent with need.

OBJECTIVE 6

Provide adequate fire and police protection services to newly developing and redeveloping areas of the City.

Policy PFS 6.1: Continue to require new development and redevelopment projects to demonstrate adequate access for fire and police vehicles.

OBJECTIVE 9

Develop schools that cultivate and educate people of all ages, that meet the needs of the workforce and that serve as community centers.

Policy PFS 9.1: Coordinate with local school districts during review of applicable discretionary approval to provide adequate school facilities, to meet needs generated by development, and to avoid overcrowding, in accordance with the guidelines and limitations of Government Code 65996(b).

OBJECTIVE 11

Provide a library system of facilities and programs that meets the needs of Chula Vista residents of all ages.

Policy PFS 11.1: During review of land use issues requiring discretionary approval, coordinate with the City of Chula Vista Public Library to provide adequate library facilities that meet the needs generated by development.

OBJECTIVE 15

Provide new park and recreation facilities for residents City-wide.

Policy PFS 15.1: Continue to pursue a city-wide standard for the provision of developed parkland for new development projects of three acres per estimated one thousand new residents.

The Growth Management (GM) Element provides integrated components that create an overall Growth Management Program (GMP). Specifically, the GM Element provides a framework for directing new development, redevelopment, and community enhancement through a set of comprehensive goals, objectives, and policies (City of Chula Vista 2005a). The City's GMP establishes the basis for Threshold Standards for facilities and services, including fire and emergency services, libraries, parks and recreation, and police. The GM Element includes the following objective and policy relevant to the project:

OBJECTIVE 1

Concurrent public facilities and services.

Policy GM 1.11: Establish the authority to withhold discretionary approvals and subsequent building permits from projects demonstrated to be out of compliance with applicable Threshold Standards.

City of Chula Vista Municipal Code

The City of Chula Vista Municipal Code (CVMC) Title 17, Section 17.10, Park Lands Dedication Ordinance (PLDO) establishes requirements for parklands and public facilities, including regulations for the dedication of land and development improvements for park and recreation purposes (CVMC Section 17.10.010). The PLDO requires the dedication of three acres of parkland per 1,000 people or a combination of land dedication, in-lieu fees, or park development improvements to be offered at the time of Final Map.

CVMC Title 19, Section 19.09, *et seq*. (Growth Management Ordinance; GMO) delineates the City's Threshold Standards for City facilities and services. The GMO is intended to implement the policy framework established by the City's General Plan and GMP. CVMC Section 19.09.040 identifies the Thresholds Standards for the maintenance and improvement of the current level of services related to police, fire and emergency services, libraries, and parks and recreation. CVMC Section 19.09.050

identifies the Threshold Standard to ensure necessary school sites and infrastructure. The City Threshold Standards are included in Section 5.10.3.

City of Chula Vista Fire Facility, Equipment, and Deployment Master Plan

The City updated its Fire Facility, Equipment, and Deployment Master Plan (FFMP) in March 2012 and adopted it in January 2014 (CVFD 2012). The plan addresses growth envisioned through the year 2030 and evaluates the issues and opportunities with providing Fire and Emergency Medical Services. The plan measures services in three concepts; distribution measures the distance/location of fire stations, concentration measures the staffing and equipment deployment at each fire station, and distribution measures the response time.

City of Chula Vista Library Facilities Master Plan

The purpose of the Chula Vista Public Library Facilities Master Plan (CVLFMP) is to identify ways to improve library service delivery to the community, particularly to residents of eastern Chula Vista. The Master Plan was developed in 1998 to make recommendations for the future development of the Chula Vista Public Library (CVPL) as surrounding areas continue to grow.

City of Chula Vista Public Library Strategic Facilities Plan

The CVPL Strategic Facilities Plan is intended as a foundation for the City and the library in planning the future of library facilities in Chula Vista. The CVPL Strategic Facilities Plan includes goals and objectives for implementing the library's vision and mission. These goals include maintaining an excellent and responsive materials collection, ensuring a high quality of public library services through appropriate planning processes, ensuring that library programs and services are accessible to the broadest range of potential users, and increasing the visibility and community awareness of the library, its services, programs, and funding needs (City of Chula Vista 2011b).

City of Chula Vista Greenbelt Master Plan

The City Greenbelt Master Plan provides guidance and continuity for planning open space and constructing and maintaining the Greenbelt Trail. The Greenbelt Master Plan addresses existing and potential trail locations, trail and staging area development standards, maintenance responsibilities and a system of trails and open space that serve as a unifying element in linking other trails within the central areas of the City.

City of Chula Vista Park & Recreation Master Plan

The Parks and Recreation Master Plan is the blueprint for the City's parks and recreation system. It defines service demands and establishes goals and policies for the delivery of

parks and recreation resources. This Master Plan update reflects the expanded 2030 development forecast identified in the City's General Plan Update.

City of Chula Vista Public Facilities Development Impact Fee

In August 1989, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Public Facilities Development Impact Fee (PFDIF), which helps cover the cost of new or expanding public facilities within the City. The facilities are required to support future development within the City, and the fee schedule has been adopted in accordance with Government Code Section 66000. The project would be subject to the payment of the fee at the rate in effect at the time building permits are issued. The PFDIF amount is determined through evaluation of the need for new facilities as it relates to the level of service demanded by new development.

5.10.3 Thresholds of Significance

Consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts related to public services or recreational facilities would be significant if the project would:

1. Result in substantial adverse physical or other environmental impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

    i. Fire protection;
    ii. Police protection;
    iii. Schools;
    iv. Parks; and
    v. Other public facilities.

2. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

3. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

City Threshold Standards relevant to this section, as delineated in CVMC Sections 19.09.040 and 19.09.050, include the following:

- Section 19.09.040B (Fire and Emergency Medical Services) specifically requires that "properly equipped and staffed fire and medical shall respond to calls throughout the City within seven minutes in 80% of the cases."

- Section 19.09.040A (Police) specifically requires that properly equipped police units must respond to 81% of Priority 1 emergency calls within seven minutes 30 seconds and maintain an average response time of six minutes or less for Priority 1 calls. For Priority 2 urgent calls, the police units must respond to all Priority 2 calls within 12 minutes or less.

- Section 19.09.040C (Libraries) specifically requires that the City not fall below the citywide ratio of 500 gross square feet of library space adequately equipped and staffed, per 1,000 population.

- Section 19.09.040D (Parks and Recreation) specifically requires three acres of public park land, with appropriate facilities, provided per 1,000 residents for new development, citywide.

- Section 19.09.050B (Schools) specifically require that the City provide the local school districts with annual residential growth forecasts to allow the districts to plan for their abilities to accommodate such growth.

5.10.4 Impacts

Threshold 1: Public Services

Impacts to fire protection and emergency services, police protection, schools, parks, or other public services would be significant if a project would conflict with either the CEQA Guideline thresholds of significance or the City's efforts to achieve or maintain performance objectives established by the City's Threshold Standards. Each subsection below addresses the project's effect on public services relative to both standards.

Fire Protection and Emergency Services

For emergency response, the City's performance objective is that properly equipped and staffed fire and medical units shall respond to calls throughout the City within seven minutes in at least 80 percent of the cases.

According to the City Growth Management Oversight Commission Annual Reports, the City achieved its goal of responding to 80 percent of calls within seven minutes for years 2017, 2018, and 2019. As discussed in Section 5.10.1.1, the project site is within the Engine Coverage Area of Fire Station 8 and is approximately 1.2 on-road miles northwest of Fire Station 8. In 2019, Fire Station 8 received 1,185 total calls and responded to 66.6 percent of calls within seven minutes.

Total response time includes dispatch time (call intake and call dispatch), turnout time, and travel time. Average dispatch time for stations east of Interstate 805 in 2019 was 61 seconds and average turn-out time was 50 seconds (City of Chula Vista 2020c). Travel time is a function of distance; as indicated in the FFMP, the distance needed for

the 90th percentile four-minute travel time is 1.5 miles. As the project is within 1.5 miles of Fire Station 8, the total response time is not anticipated to exceed seven minutes. Therefore, fire protection response times to the project site are adequate.

As the project would result in additional land use development, it would contribute to increased demand for emergency response services. The project would promote the policies and goals of the General Plan. Consistent with City regulations, the project would be required to pay PFDIF and would thereby be required to contribute its fair share of the cost of facilities, staffing, and equipment necessary to accommodate increased demand for emergency response services. Therefore, the project would not result in increased demand for emergency response services that indirectly requires new or expanded fire or emergency medical facilities to achieve emergency response. Under both the CEQA and City standards, project impacts on fire protection and emergency services would be less than significant.

Police Protection

For police protection services, the City's Threshold Standards require properly equipped and staffed police units that shall respond to (1) at least 81 percent of Priority 1 calls within seven minutes 30 seconds and shall maintain an average response time of six minutes or less for all Priority 1 calls; and (2) shall respond to Priority 2 calls within 12 minutes or less.

In 2019, the CVPD received 506 Priority 1 calls for service and responded to approximately 74 percent within seven minutes 30 seconds. The CVPD also received 15,571 Priority 2 calls for service and had an average response time of 12 minutes. Overall, the CVPD did not achieve performance objectives established by the City's Threshold Standards.

As discussed in Section 5.10.1.2, CVPD Headquarters is located at 315 Fourth Avenue, which is approximately 7.5 miles west of the project site. Response time is not dependent on distance from headquarters because patrol officers respond to calls for service from the field rather than a fixed station. As the project would result in additional land use development, it could contribute to increased demand for police protection services. Consistent with City regulations, the City's PFDIF, described previously, would help cover the cost of new or expanding public facilities within the City, including police facilities. Although the City requires additional law enforcement staff to meet City Threshold Standards, the project would be required to pay the PFDIF, which would be used exclusively for future facility improvements necessary to ensure that the development contributes its fair share of the cost of police facilities and equipment determined to be necessary to adequately accommodate new development in the City.

Therefore, the project would not result in increased demand for police protection services that indirectly requires new or expanded police facilities to achieve response

times. Under both the CEQA and City standards, project impacts on police protection and emergency services would be less than significant.

Schools

For schools, the City's performance objective is that the City shall annually provide the CVESD and the SUHSD with the City's annual five-year residential growth forecast and request an evaluation of their ability to accommodate forecasted growth, both citywide and by subarea.

The project would construct a behavioral health facility and would not construct any housing. Therefore, the project would not generate any new student enrollment and would not require new or expanded school facilities. Under both the CEQA and City standards, project impacts on schools would be less than significant.

Parks/Recreational Facilities

For parks and recreational facilities, the City's performance objective is provision of three acres of neighborhood and community park land with appropriate facilities per 1,000 residents east of Interstate 805.

The project site is not located within a designated open space or recreational area. The project would construct a behavioral health facility and would not construct any housing. Therefore, the project would not generate any new population and would not require new or expanded park facilities. Under both the CEQA and City standards, project impacts on schools would be less than significant.

Other Public Facilities

For libraries, the City's Threshold Standards require the citywide ratio of 500 gross square feet of library space, adequately equipped and staffed, per 1,000 residents shall be maintained.

The Chula Vista Library Strategic Vision Plan does not identify any library facilities within the project site (City of Chula Vista 2014) and the project does not propose the construction of new residential development that would create a demand on the City's existing library resources. Therefore, the project would not generate any new population and would not require new or expanded public library facilities. Under both the CEQA and City standards, project impacts on library facilities would be less than significant.

<u>Threshold 2: Demands on Parks</u>

As stated above, the project would construct a behavioral health facility on an undeveloped parcel and would not construct any housing. Therefore, the project would not generate any new population and would not result in a substantial increase in the

use of parks that would accelerate their physical deterioration. Impacts would be less than significant.

Threshold 3: Expansion of Recreational Facilities

The project would construct a behavioral health facility and would not construct any housing. Therefore, the project would not generate any new population and would not require the construction or expansion of any recreational facilities that would result in physical impacts. Impacts would be less than significant.

5.10.5 Level of Significance Prior to Mitigation

The project would not require any new or physically altered facilities. The project would not result in any new residential uses requiring new or expanded school, recreation, or library facilities. All impacts related to the need for improved or expanded services would be less than significant.

5.10.6 Mitigation Measures

Impacts related to public services and recreation would be less than significant. No mitigation is required.

5.11 Transportation

This section of the Environmental Impact Report (EIR) addresses the project's impacts related to transportation that could result from implementation of the Eastlake Behavioral Health Hospital project (project). Information presented in this section is based on the Transportation Impact Analysis (TIA; Appendix I) prepared by Linscott, Law & Greenspan, Engineers (2020).

5.11.1 Existing Conditions

5.11.1.1 Vehicle Miles Traveled

Vehicle miles traveled (VMT) is defined as a measure of miles traveled by vehicles within a specified region and for a specified time period. VMT is a measure of the use and efficiency of the transportation network, calculated based on individual vehicle trips generated and their associated trip lengths. VMT accounts for two-way (round trip) travel and is estimated for a typical weekday for the purposes of measuring transportation impacts. With respect to the proposed project (hospital uses), "VMT per employee" is the efficiency metric used for evaluation. In general, the analysis presents the project VMT per employee, and compares it to a regional VMT per employee to determine if the former is higher, equal to, or lower than the latter.

5.11.1.2 Roadway Network

The roadway network in the vicinity of the project site includes the following:

Otay Lakes Road is classified as a seven-lane Expressway between State Route 125 (SR-125) and Eastlake Parkway and a six-lane Prime east of Eastlake Parkway in the City of Chula Vista (City) General Plan. Currently, Telegraph Canyon Road is constructed as a seven-lane divided roadway from the SR-125 ramps to Eastlake Parkway and a six-lane divided roadway east of Eastlake Parkway. Bike lanes exist on both sides of the street and curbside parking is prohibited. The posted speed limit is 50 miles per hour (mph). The General Plan Circulation Plan-East identifies Otay Lakes Road as a 6-Lane Prime roadway.

Eastlake Parkway is classified as a four-lane Major in the City's General Plan. Currently, Eastlake Parkway is constructed as a six-lane divided roadway. Bike lanes exist on both sides of the street and curbside parking is prohibited. The posted speed limit is 40 mph. The General Plan Circulation Plan-East identifies Eastlake Parkway as a 4-Lane Major roadway where it is in proximity to the project site.

Fenton Street is classified as a Class I Collector in the City's General Plan. Currently, Fenton Street is constructed as a four-lane undivided roadway between Eastlake Parkway and Kuhn Drive and a two-lane undivided roadway with a two-way left-turn lane east of Kuhn Drive. Bike lanes are not provided on either side of the street and curbside parking

is permitted east of Lane Avenue. The posted speed limit is 35 mph. The General Plan Circulation Plan-East identifies Fenton Street as a Class I Collector roadway where it is in proximity to the project site.

Hunte Parkway is classified as a four-lane Major in the City's General Plan. Currently, Hunte Parkway is constructed as a four-lane divided roadway. On-street parking is prohibited. The posted speed limit is 45 mph and bike lanes are provided. The General Plan Circulation Plan-East identifies Hunte Parkway as a 4-Lane Major roadway where it is in proximity to the project site.

Lane Avenue is classified as a Class I Collector in the City's General Plan. Currently, Lane Parkway is constructed as a four-lane undivided roadway with a two-way left-turn lane. On street parking is prohibited. The posted speed limit is 35 mph and bike lanes are provided.

Showroom Place is an unclassified roadway in the City's General Plan. Currently, Showroom Place is constructed as a two-lane undivided roadway. On-street parking is generally allowed except between the hours of 10 p.m. and 6 a.m. Bike lanes are not provided and a posted speed limit was not observed.

5.11.1.3 Existing Traffic Volumes

Existing weekday AM and PM peak hour (7:00-9:00 a.m. and 4:00-6:00 p.m.) turning movement counts at the study area intersections and 24-hour average daily traffic (ADT) volumes along the study area street segments were conducted on Tuesday, December 18, 2018 while project area schools were in session. Table 5.11-1 provides a summary of the counted ADTs.

TABLE 5.11-1
EXISTING TRAFFIC VOLUMES

Street Segment	ADT[a]
Otay Lakes Road	
SR-125 Northbound Ramps to Eastlake Parkway	43,320
Eastlake Parkway to Lane Avenue	29,730
Lane Avenue to Fenton Street	19,210
Fenton Street to Hunte Parkway	18,750
East of Hunte Parkway	10,670
Eastlake Parkway	
Fenton Street to Otay Lakes Road	23,250
Fenton Street	
Lane Avenue to Showroom Place	8,200
Showroom Place to Otay Lakes Road	6,260
Hunte Parkway	
Otay Lakes Road to Clubhouse Drive	14,910

SOURCE: NDS Traffic Count Firm (see Appendix I).
NOTE: Traffic counts were conducted on December 18, 2018
[a]Average daily traffic

5.11.1.4 Existing Alternative Modes of Transportation

Continuous sidewalks are provided along both sides of all streets in the study area. Class II bike lanes are located on Otay Lakes Road, Eastlake Parkway and Hunte Parkway. There are no other bicycle facilities provided along the street segments within the study area.

Transit service is provided to the area via the Route 709 Bus Route. Route 709 provides bus service to the area via Eastlake Parkway, with stops provided on Eastlake Parkway and Clubhouse Drive and Boswell Road and Lane Avenue.

5.11.2 Regulatory Setting

5.11.2.1 State

Caltrans

The California Department of Transportation (Caltrans) oversees the state's highway system. Caltrans is the public agency responsible for designing, building, operating, and maintaining the state's highway system, which consists of freeways, highways, expressways, toll roads, and the area between the roadways and property lines. Caltrans is also responsible for permitting and regulating the use of state roadways. Caltrans' construction practices require temporary traffic control planning during activities that interfere with the normal function of a roadway.

5.11.2.2 Regional

2050 Regional Transportation Plan

The SANDAG San Diego Forward: The Regional Plan is an update of the Regional Comprehensive Plan and the 2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), combined into one document. The Regional Plan includes an SCS, in compliance with Senate Bill (SB) 375. The SCS aims to create sustainable, mixed-use communities conducive to public transit, walking, and biking by focusing future growth in the previously developed, western portion of the region along the major existing transit and transportation corridors. The Regional Plan has a horizon year of 2050, and forecasts regional growth and the construction of transportation projects over this time period.

5.11.2.3 Local

City of Chula Vista Transportation Study Guidelines

The City Council adopted the Transportation Study Guidelines (TSG) in June 2020 to comply with SB 743 requirements and provide guidance on preparing transportation

impact studies for California Environmental Quality Act (CEQA) compliance. The guidelines provide criteria to evaluate projects for consistency related to the City's transportation goals, policies, and plans. The TSG establishes procedures for analyzing and documenting VMT impacts (TSG; City of Chula Vista 2020d). The City VMT thresholds of significance are included in Section 5.11.3.

City of Chula Vista General Plan

The Land Use and Transportation (LUT) Element of the City General Plan focuses on the development of "a sustainable circulation/mobility system that provides transportation choices and is well-integrated with the City's land uses" (City of Chula Vista 2005a, page LUT-85). Specifically, Objective 21 addresses the need to maintain adequate roadway capacity to support new development.

OBJECTIVE LUT 21

Continue efforts to develop and maintain a safe and efficient transportation system with adequate roadway capacity to serve future residents, while preserving the unique character and integrity of recognized communities within the City.

The Growth Management (GM) Element provides integrated components that create an overall Growth Management Program (GMP). Specifically, the GM Element provides a framework for directing new development, redevelopment, and community enhancement through a set of comprehensive goals, objectives, and policies (City of Chula Vista 2005a). The City's GMP establishes the basis for Threshold Standards for facilities and services, including traffic. The GM Element includes the following objective and policy relevant to the project:

OBJECTIVE 1

Concurrent public facilities and services.

Policy GM 1.11: Establish the authority to withhold discretionary approvals and subsequent building permits from projects demonstrated to be out of compliance with applicable Threshold Standards.

City of Chula Vista Municipal Code

The City of Chula Vista Municipal Code (CVMC) Title 19, Section 19.09.040 (Growth Management Ordinance [GMO]) delineates the City's Threshold Standards for City facilities and services. The GMO is intended to implement the policy framework established by the City's General Plan and GMP. CVMC Section 19.09.040 identifies the Threshold Standards for the maintenance and improvement of the current level of services related to traffic. CVMC Section 19.09.040G identifies the Thresholds Standards for the

maintenance of a safe and efficient street system for all modes of transportation. The City Threshold Standard is included in Section 5.11.3.

5.11.3 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to transportation would be significant if the project would:

1. Conflict with a program plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities;

2. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)[1];

3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

4. Result in inadequate emergency access.

The City Threshold Standard relevant to this section, as delineated in CVMC Section 19.09.040 included the following:

- Section 19.09.040G (Traffic) specifically requires the maintenance of the following level of service (LOS) on City streets:

    1. Arterial Level of Service (ALOS) for Non-Urban Streets: City-wide. Those Traffic Monitoring Program (TMP) roadway segments classified as other than Urban Streets in the “Land Use and Transportation Element” of the City’s General Plan shall maintain LOS C or better as measured by observed average travel speed on those signalized arterial segments; except, that during peak hours, a LOS D can occur for no more than two hours of the day.

    2. Urban Street Level of Service (ULOS): Those TMP roadway segments classified as Urban Streets in the Land Use and Transportation Element of the City’s General Plan shall maintain LOS D or better, as measured by observed or predicted average travel speed, except that during peak hours, LOS E can occur for no more than two hours per day.

It is important to note that the consideration of LOS as identified in the City Threshold Standard is no longer the metric for identifying a significant impact under CEQA.

[1] CEQA Guidelines Section 15064.3(b), effective July 1, 2020, provides direction for considering a project’s transportation impacts as they relate to VMT.

Within the TSG, the City provides thresholds of significance related to the CEQA VMT analysis that are applied after a project undergoes a screening process to determine whether the project can be presumed to have a less than significant VMT impact. A project that meets at least one of the screening criteria below is presumed to have a less than significant VMT impact due to project characteristics and/or location.[2] Screening criterion 3 applies to the proposed project:

1. Small Residential and Employment Projects: projects generating 200 or less daily vehicle trips;
2. Projects Located in a Transit-Accessible Area: projects located in a transit priority area (TPA) or half-mile walkshed of an existing stop along a high-quality transit corridor;
3. Projects Located in a VMT-Efficient Area: a VMT-efficient area is any area within the City with an average VMT per capita or VMT per employee below the thresholds as compared to the baseline regional average for the census tract it is located within;
4. Locally Serving Retail Projects: local serving retail projects less than 125,000 square feet, and that would serve the local community;
5. Local Serving Public Facilities and Community Purpose Facilities: public facilities that serve the surrounding community or public facilities that are passive uses;
6. Redevelopment Projects with Greater VMT Efficiency: a redevelopment project;
7. Affordable Housing: any portion of a project that is composed of deed-restricted affordable housing units if the project meets the following conditions:
    a. Infill project
    b. Close to transit
    c. Parking does not exceed CVMC.

Projects that do not meet the above screening criteria must include a detailed evaluation of the VMT produced by the project. The significant thresholds and specific VMT metrics used to measure VMT are determined by land use and detailed in Section 3.3 of the City TSG.

[2] City staff may, in its discretion, require project applicants to provide evidence that the presumption is in fact applicable in a given case, and may ultimately determine the presumption is not applicable. Thus, screening will be determined at the City's discretion on a case-by-case basis (TSG Section 3.3; City of CV 2020).

5.11.4 Impacts

Threshold 1: Conflicts with Applicable Plans

Applicable plans, policies, and regulations are discussed in Section 5.11.2, Regulatory Setting. As detailed in the following paragraphs, the project would be consistent with transportation-related plans, ordinances, and policies, including the City's Threshold Standards.

State

Caltrans oversees the state's highway system. Caltrans' construction practices require temporary traffic control planning during activities that interfere with the normal function of a roadway. The project would be required to comply with Caltrans requirements to ensure the maintenance of traffic flow during construction. Therefore, the project would be consistent with state regulations relating to circulation.

Regional

SANDAG's San Diego Forward aims to create sustainable land patterns conducive to public transit, walking, and biking by focusing future growth in previously developed areas along the major existing transit and transportation corridors. The project, while not proposing residential uses, would be located within a developed portion of this City, accessible by public transportation, close to regional freeways, and away from environmentally sensitive resources. Therefore, the project would be consistent with SANDAG's mobility planning policies.

Local

The City's LUT Element includes objectives, goals, and policies focused on improved mobility. The following project vicinity roadways are identified on the General Plan Circulation Plan-East: Otay Lake Road, Eastlake Parkway, Fenton Street, and Hunte Parkway. LUT Objective LUT 21 sets a standard for the maintenance of an efficient transportation system with adequate roadway capacity to serve future residents, while preserving the unique character and integrity of recognized communities within the City. To meet this objective, the City conducts periodic analyses of the existing circulation system to verify that acceptable levels of service are provided on circulation corridors, as well as individual signalized intersections, as part of a comprehensive growth management program (LUT Policy 21.2).

The City's Growth Management Oversight Commission (GMOC) issues an annual report to determine whether established Threshold Standards, as identified in CVMC Section 19.09.040 are being met. The Annual Report for Fiscal Year 2019 (July 1, 2018-June 30, 2019) was issued on January 30, 2020. The report reviews all 11 service topics for which Threshold Standards are identified. With respect to traffic, the report did identify

non-compliance; however, the non-complaint roadways are not those within the project vicinity.

The project includes road improvements to ensure adequate traffic flow would continue consistent with General Plan policies and Threshold Standards. Specifically, the project would commit funding to the installation of a traffic signal the intersection of Harold Place/Fenton Street. Additionally, the project includes provision of a fair share towards the construction of Adaptive Traffic Signal Control (ATSC) modules to all signalized intersections along Otay Lakes Road between Eastlake Parkway and Hunte Parkway. These traffic signal improvements are project features and expressed as part of the project description (see Chapter 3.0). As detailed in Table 15.1 and Appendix J of the TIA (see Appendix I), operation of traffic signals at these intersections would ensure consistency with City policies and Threshold Standards.

Overall, impacts relating to program plan, ordinance, or policy addressing the circulation system would be less than significant.

Threshold 2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)

SB 743 was approved by the California legislature in September 2013, requiring changes to the CEQA methodology, specifically directing the OPR to develop alternative metrics to the use of vehicular LOS for evaluating transportation projects. As discussed under Threshold 1, OPR published the Technical Advisory providing recommendations for the preparation of transportation impact analyses under SB 743, suggesting a VMT analysis to replace LOS as the primary measure of transportation impacts under CEQA.

Initial Screening

The TIA prepared for the project (see Appendix I) follows the guidelines contained within the City's TSG. The City's screening procedures include preliminary screening criteria to determine if a project is screened out from detailed VMT analysis. If a project meets screening criteria for CEQA VMT analysis, a detailed CEQA VMT analysis would not be required. This approach is generally consistent with the procedures outlined in the OPR Technical Advisory.

As detailed under Section 5.11.3, prior to any detailed project specific VMT analysis, the City adopted OPR's allowance for the use of screening criteria to identify if a project would result in a less than significant impact. Specifically, the City allows projects located in a VMT-efficient area to be screened out of the requirement for a detailed transportation VMT analysis. A SANDAG VMT Screening Map was prepared for the project and is shown in Figure 5.11-1. This figure shows that the VMT per employee at this location is 21.35 miles, which is 82.43 percent of the regional average (25.90 miles). Because the project would result in a VMT per employee that is more than 15 percent below the regional VMT, the impact would be considered less than significant. The findings of the initial screening are summarized further in Table 5.11-2.

Map Source: Linscott Law & Greenspan Engineers

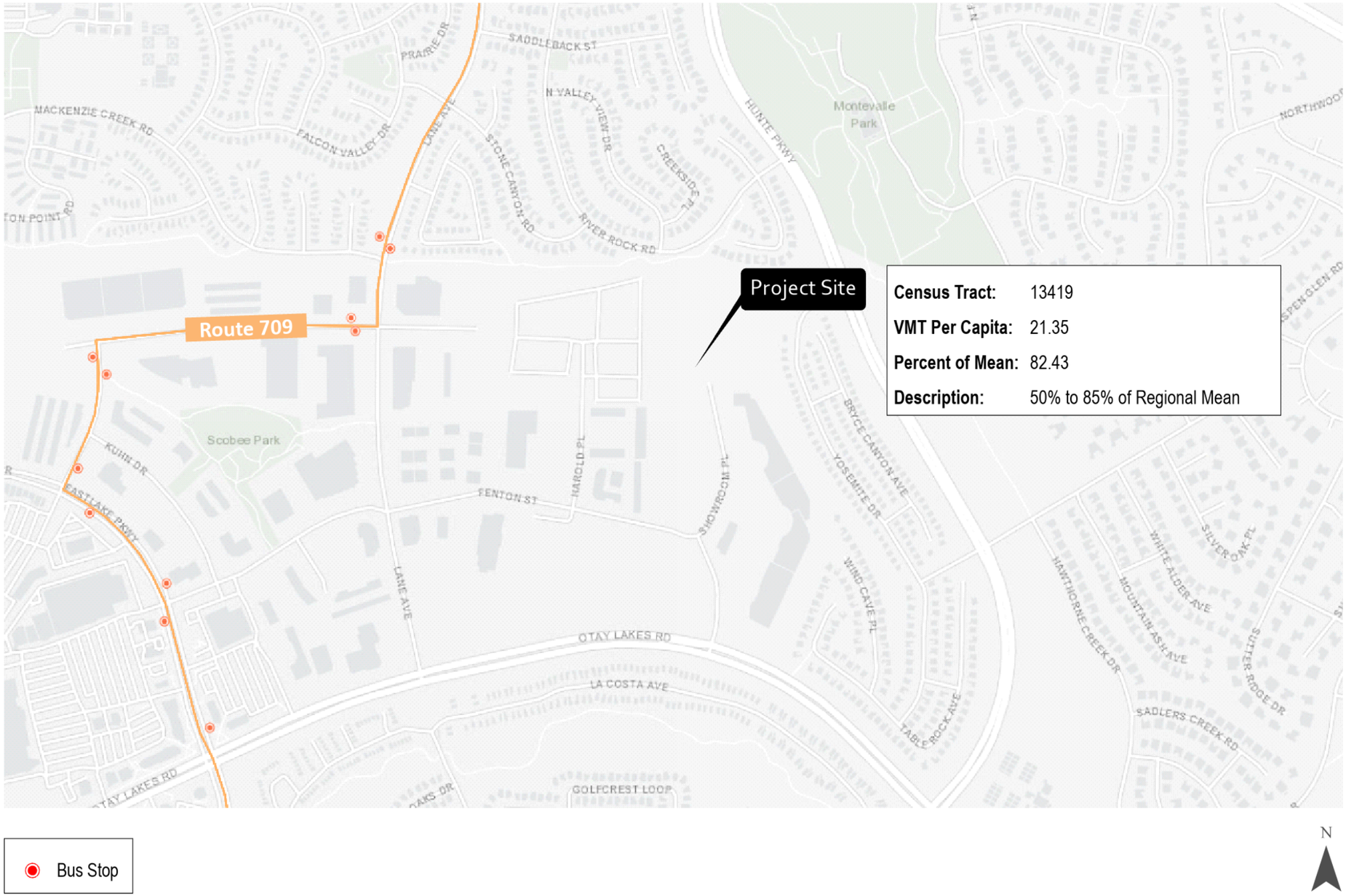

FIGURE 5.11-1
SANDAG WMT Screen-Line
Map for Project Site

RECON
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TABLE 5.11-2 PROJECT VMT FINDINGS				
Scenario	Regional Baseline VMT per Employee	Significance Threshold (85% of Regional Average VMT per Employee)	Project VMT per Employee	Transportation Impact? (Over Threshold?)
Employee VMT per capita	25.90	22.02	21.35	No
SOURCE: City of Chula Vista VMT Screening Tool (May 2020); see Appendix I.				

Based on the screening review, the project would be screened out of the requirement for a detailed VMT analysis, and the project is considered as resulting in a less than significant VMT impact without conducting a detailed study.

Thresholds 3: Hazards due to a Design Features

The project does not include any features that would substantially increase hazards. No off-site improvements are proposed that would change the design or alignment of existing area roadways. Changes to the existing circulation system would be limited to the project commitment of funds for the installation of a traffic signal at the intersection of Harold Place/Fenton Street. This improvement would not increase hazards due to a geometric design feature or incompatible uses.

Threshold 4: Emergency Access

As described above, changes to the existing circulation system would be limited to the project commitment of funds for the installation of a traffic signal at the intersection of Harold Place/Fenton Street that would not physically interfere with emergency access. Therefore, the project would not interfere with any emergency access**.**

5.11.5 Level of Significance Prior to Mitigation

The project would not result in a conflict with applicable plans, policies, or programs relating to Transportation, including the City's General Plan or CVMC. the

The project would be screened out of the requirement to prepare a detailed VMT analysis based on the SANDAG Screening Map prepared for the project. Therefore, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and impacts would be less than significant.

The project does not include any design features or incompatible uses that would increase hazards, nor would the project interfere with emergency access. Impacts would be less than significant.

5.11.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

5.12 Utilities and Service Systems

This section of the Environmental Impact Report (EIR) addresses public utilities that would serve the Eastlake Behavioral Health Hospital (project) and evaluates potential impacts due to implementation of the project. Public utilities evaluated in this section include water, sewer, and solid waste facilities. Information presented in this section is based on information provided by the local service providers on City websites, and findings from approved planning documents. Additionally, discussion is summarized from the Sewer Study (Appendix J) prepared by K&S Engineering, Inc. (2019c).

5.12.1 Existing Conditions

5.12.1.1 Water

Water imported to the San Diego region comes from two primary sources, the Colorado River through the 240-mile Colorado River Aqueduct, and the State Water Project from northern California through the Sacramento-San Joaquin River Delta and the 444-mile-long California Aqueduct. These sources deliver water to the Metropolitan Water District of Southern California (MWD), which then distributes water supplies to water agencies throughout the southern California region including the San Diego County Water Authority (SDCWA). The SDCWA is composed of 23 member agencies and receives purchased water by gravity through two aqueducts containing five large-diameter pipelines. These pipelines then supply water to member water agencies, including the Otay Water District (OWD), which serves the project area.

5.12.1.2 Wastewater

Sanitary sewer service for the project would be provided by the City of Chula Vista (City). The City operates and maintains its own sanitary collection system that ultimately connects to the City of San Diego Metropolitan Wastewater (METRO) system. All wastewater generated by the project would eventually be conveyed to the METRO system via the South Metro Interceptor. METRO provides wastewater conveyance, treatment, and disposal services for the City and 14 other participating agencies in accordance with the terms of a multi-agency agreement (METRO Agreement).

The City collects a capacity fee from new developments to fund the purchase of METRO capacity. Development cannot occur without adequate sewer capacity as determined by the City Engineer. Developers typically pay the sewer capacity fee at building permit issuance; however, as the project is a hospital, Office of Statewide Health Planning and Development has jurisdiction over the building permits. Therefore, sewer capacity fees would be collected by the City at issuance of the grading permit. The City currently has capacity rights in the METRO system (comprised of conveyance, treatment, and disposal facilities) equal to 20.864 million gallons per day (mgd) based on the recent capacity allocation of 1.021 mgd from the South Bay Water Reclamation Facility.

The project area lies completely within the Telegraph Canyon Sewer Basin. Wastewater in the Telegraph Canyon Road sewer pipe flows westerly to an existing connection to the South Metro Interceptor located just west of Interstate 5. The South Metro Interceptor, a regional transmission facility owned, operated, and maintained by the City of San Diego, conveys flows north to the Point Loma Treatment Plant.

5.12.1.3 Solid Waste

The City Public Works Department and Environmental Services Division oversees waste management for residences and businesses in accordance with the goals of the adopted General Plan and Assembly Bill (AB) 341. The current solid waste and recycling service provider for the City is Republic Services. Existing solid waste disposal facilities in the area include the Otay Landfill and several recycling facilities in proximity to the landfill. The Otay Landfill accepts approximately 98 percent of the non-hazardous municipal waste collected in the City. The Otay Landfill is expected to be in operation until 2028 based upon current waste generation rates. Currently, the Sycamore Landfill is proposed to take the place of the Otay Landfill as the City's primary landfill when the Otay Landfill closes.

Recyclable mixed debris is processed at either the Otay Landfill run by Republic Services or the EDCO Construction and Demolition (C&D) facility in Lemon Grove. The City Environmental Services Division offers bulky item collection, construction and demolition debris, electronic waste, hazardous waste, composting, reuse, sharps waste disposal, universal waste, yard waste, and special services programs and services. Chula Vista's CLEAN business program promotes businesses which implement solid waste reduction measures and practices. The program also promotes energy conservation, water conservation, and pollution prevention measures implemented by businesses.

5.12.2 Regulatory Setting

5.12.2.1 State

Title 24, Part 11 – California Green Building Standards

The 2019 California Green Building Standards Code, referred to as CALGreen, took effect January 1, 2020, instituting mandatory minimum environmental performance standards for all ground-up new construction of commercial and low-rise residential occupancies. It includes both mandatory requirements and additional voluntary environmental performance standards. Local jurisdictions must enforce the minimum mandatory requirements and may also adopt the Green Building Standards with amendments for stricter requirements.

California Mandatory Commercial Recycling Regulation

Enacted by AB 341 and signed into law May 2012, the regulation addresses recycling requirements for businesses that generate four or more cubic yards of commercial solid waste per week and multi-family residential dwellings with five or more units regardless of the amount of waste they generate. Businesses can utilize a number of actions to reuse recycle, compost, or otherwise divert commercial solid waste from disposal. AB 341 also requires local jurisdictions to implement a mandatory commercial recycling program that includes education, outreach, and monitoring to ensure businesses are meeting recycling requirements.

California Integrated Waste Management Act

Enacted by AB 939 and signed into law in 1990, the California Integrated Waste Management Act (IWMA) established an integrated system of solid waste management in the state whereby each city and county was required to develop and implement plans consistent with the mandated diversion rates of 25 percent by 1995 and 50 percent by 2000. Under IWMA, the County prepared a Countywide Siting Element and Summary Plan addressing the capacity of existing and proposed disposal sites. The act further requires each city to prepare and implement a Source Reduction and Recycling Element, a Household Hazardous Waste Element, and a Non-Disposal Facility Element to describe any new solid waste facilities and expansions of existing solid waste facilities needed to implement the jurisdiction's source reduction and recycling element.

5.12.2.2 Regional

San Diego County Water Authority 2015 Urban Water Management Plan

On April 29, 2016, the SDCWA Board of Directors adopted its final 2015 Urban Water Management Plan (UWMP; SDCWA 2016). The 2015 UWMP components include: baseline demand forecasts under normal weather, dry weather and climate change scenarios; conservation savings estimates and net water demand projections; a water supply assessment; supply reliability analysis; and scenario planning. The Water Authority's 2015 UWMP estimates that future water demands will be about 12 percent lower in 2035 compared to projections in the 2010 plan. Preparation of an update to the 2015 UWMP is currently in process.

Otay Water District 2015 Urban Water Management Plan Update

The requirements for the 2015 UWMP call for projections of water demands for low-income customers. The OWD reviewed the housing elements from the City of Chula Vista, City of San Diego, and County of San Diego's General Plans, which forecast projections to 2030. Demands for the projected low-income housing projects were estimated using the OWD's planning demand criteria in its 2015 Master Plan for high

density multi-family residential units. Projected water demands were then distributed equally throughout 2015 and 2040. These demands have been assumed as part of the general growth within the OWD and have been included in the OWD's potable water demand projections.

Otay Water District Water Resources Master Plan

The Water Resources Master Plan Update (WRMP) identifies the capital facilities needed to provide an adequate, reliable, flexible, and cost-effective potable and recycled water system for the delivery of OWD, City of San Diego, SDCWA, and/or MWD water supply to meet approved land use development plans and growth projections within the planning area consistent with the San Diego Association of Governments (SANDAG) forecasts through 2030. The proposed potable and recycled facilities, as well as expansions to existing facilities, are identified as being able to meet the projected customer demands for anticipated development through 2030. As presented in the WRMP, supply options for the OWD area include water conservation, groundwater development, desalination, recycled water, additional imported water alternatives, and regional water banking and transfers.

5.12.2.3 Local

City of Chula Vista General Plan

The Public Facilities and Services (PFS) Element of the City's General Plan establishes the City's plan to provide and maintain infrastructure and public facilities for future growth. Public facilities collectively refer to utilities, such as: water; sewer; drainage; power; and telecommunications services. The following objective and policies found in the PFS Element are relevant to the project:

OBJECTIVE PFS 1

Ensure adequate and reliable water, sewer and drainage service and facilities.

Policy PFS 1.4: For new development, require on-site detention of storm water flows such that, where practical, existing downstream structures will not be overloaded. Slow runoff and maximize on-site infiltration of runoff.

OBJECTIVE PFS 2

Increase efficiencies in water use, wastewater generation and its re-use, and handling of storm water runoff throughout the city through use of alternative technologies.

OBJECTIVE PFS 3

Ensure a long-term water supply to meet the needs of existing and future uses in Chula Vista.

OBJECTIVE PFS 24

Promote state-of-the-art telecommunication services throughout Chula Vista.

OBJECTIVE PFS 25

Efficiently handle solid waste disposal throughout the city.

Policy PFS 25.1: Plan for adequate systems and facilities to manage the City's solid waste generation, treatment, and disposal.

Policy PFS 25.3: Participate in interjurisdictional efforts to maintain available landfill capacity in San Diego County.

In addition, the Environmental Element of the General Plan promotes solid waste reduction strategies though recycling and waste reduction incentives. Specifically, the following objective would be relevant to the project.

OBJECTIVE E 8

Minimize the amount of solid waste generated within the General Plan area that requires landfill disposal.

The Growth Management (GM) Element of the General Plan provides integrated components that create an overall Growth Management Program (GMP). Specifically, the GM Element seeks to ensure public facilities and services are available to residents and visitors of the City concurrent with development. The City's GMP establishes the basis for Threshold Standards for City facilities and services, including water and sewer. The GM Element includes the following objective and policies found to be relevant to the project:

OBJECTIVE 1

Concurrent public facilities and services.

Policy GM 1.11: Establish the authority to withhold discretionary approvals and subsequent building permits from projects demonstrated to be out of compliance with applicable Threshold Standards.

City of Chula Vista Municipal Code

Chula Vista Municipal Code (CVMC) Section 19.09, *et seq*. (Growth Management Ordinance; GMO) delineates the City's Threshold Standards for City facilities and services. The GMO is intended to implement the policy framework established by the City's General Plan and GMP. CVMC Section 19.09.040 identifies the Threshold Standards for the maintenance and improvement of the current level of services related to sewer. CVMC Section 19.09.050 identifies the Threshold Standard to ensure adequate storage, treatment, and transmission of water. The City Threshold Standards are included in Section 5.12.3.

City of Chula Vista Green Building Standards

The Green Building Standards (GBS) ordinance (Ordinance No. 3470) was adopted by the City Council and became effective January 1, 2020. This represents adoption of CALGreen, 2019 Edition, known as the California Code of Regulations. Through adherence to the GBS ordinance, new residential and non-residential construction, additions, remodels, and improvements would benefit from enhanced energy efficiency, pollutant controls, interior moisture control, improved indoor air quality and exhaust, indoor water conservation, storm water management, and construction waste reduction and recycling.

City of Chula Vista Landscape Manual and Landscape Water Conservation Ordinance

The City's Landscape Manual includes requirements and standards for landscape areas throughout the City and identifies the need for water conservation practices to be implemented in the form of xeriscape landscaping and drought-tolerant plant materials. Chapter 20.12 of the CVMC, known as the Landscape Water Conservation Ordinance, requires new construction and rehabilitated landscapes to conform to applicable landscape design plans to ensure smart water use in terms of plantings, irrigation, conservation, and other landscape related matters.

City of Chula Vista Wastewater Master Plan

The City's Wastewater Master Plan provides a comprehensive review and evaluation of the City's existing wastewater collection system based on future growth projections through year 2050. The Wastewater Master Plan is also intended to identify facility improvements necessary to support the City's growth.

City of Chula Vista Construction and Demolition Debris Recycling Ordinance

Effective July 2008, the Construction and Demolition Debris Recycling (C&DD) Ordinance requires construction and demolition projects to divert their debris form landfill disposal. One hundred percent of inert material (such as concrete, rock and landscape debris, etc.) and a minimum of 50 percent of all other materials (carpets, drywall,

cabinets, etc.) shall be recycled and/or reused for certain projects. The C&DD Ordinance is designed as a means of achieving compliance with CALGreen.

City of Chula Vista Subdivision Manual

Section 3 of the Subdivision Manual provides general design criteria and engineering requirements for the construction of storm drain and sewer systems.

5.12.3 Thresholds of Significance

Consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts to utilities and services would be significant if the project would:

1. Require or result in the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects.

2. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve project's projected demand in addition to the provider's existing commitments.

4. 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.

5. Comply with federal, state, and local management and reduction statutes and regulation related to solid waste.

City Threshold Standards relevant to this section, as delineated in CVMC Sections 19.09.040 and 19.09.050, include the following:

- Section 19.09.040E (Sewer) specifically requires that existing and projected facility sewage flows and volumes shall not exceed City engineering standards for the current system and for budgeted improvements, as set forth in the Subdivision Manual.

- Section 19.09.040F (Drainage) specifically requires that storm water flows and volumes shall not exceed city engineering standards and shall comply with current local, state and federal regulations.

- Section 19.09.050C (Water) specifically requires that adequate water supply must be available to serve new development. Therefore, developers shall provide the City with a service availability letter from the appropriate water district for each project.

5.12.4 Impacts

Threshold 1: Need for Construction or Expansion of Service Facilities

The project would be required to adhere to all relevant City General Plan and regulatory requirements to ensure the provision of adequate and reliable water, sewer and drainage service (General Plan Objective PFS 1). The project site is being developed as part of a master planned community in accordance with the Eastlake II General Development Plan (GDP). The project is an allowed use pursuant to the relevant planning documents including the Eastlake II GDP and Business Center II Supplemental Sectional Planning Area (SPA) Plan that allows hospital uses subject to a Conditional Use Permit. Therefore, construction of the project has been anticipated which has allowed the City and service district's the ability to schedule and construct needed improvements.

Water Facilities

The project would connect to an existing 12-inch water line located within the cul-de-sac at the terminus of Showroom Place. The 2015 OWD UWMP is based on SANDAG's 2050 Regional Growth Projections which include the City's 2005 General Plan Update. Therefore, the water demand projections are based on land uses within the OWD service area including the project. The OWD 2015 UWMP concludes that in average precipitation years, OWD has sufficient water to meet its customers' needs through 2035, based on continued commitment to conservation programs. The project would be consistent with the City's General Plan and the OWD 2015 UWMP. Therefore, the project would not require the expansion of water lines. Impacts related to water facilities would be less than significant.

Sewer Facilities

As stated in the Sewer Study prepared for the project (see Appendix J), the project site is located in the Telegraph Canyon Basin. The project would connect to an existing 8-inch sewer main located within the cul-de-sac at the terminus of Showroom Place. The wastewater outflow for the project is estimated to be approximately 26,050 gallons per day (gpd). This is based on an estimated sewage flow rate of 2,500 gpd per acre as defined in the City's Subdivision Manual – Sewer Design Criteria. Since the needs of the project have been accounted for within the City's planning documents, there is sufficient capacity for the estimated wastewater from the project, and consistent with the City's Threshold Standards, the project would meet City engineering standards and would be

within projected facility sewage flows. Impacts related to sewer facility capacity would be less than significant.

Storm Water Facilities

The project would construct two on-site storm water runoff detention and biofiltration basins to manage runoff, located along the southern border of the site, adjacent to the project's driveway entrance. Storm water would be transferred from the on-site basins to the existing 24-inch storm drain line located within the cul-de-sac at the terminus of Showplace Drive. As detailed in Section 5.8.3 (Threshold 3), the project includes site design, source control, and structural pollutant control measures. Consistent with General Plan Policy PFS 1.4, runoff would be maintained in its southern flow and directed into the two detention basins which would temporarily store runoff, allowing saturation, before release, thereby slowing increased project runoff (see Figure 3-11). Drainage flow would be reduced compared to the existing (see Table 5.8-1). No increase in pipe size or any off-site storm water facilities would be required, and consistent with the City's Threshold Standards, project storm water flows and volumes would not exceed City engineering standards. Impacts related to storm water facility capacity would be less than significant.

Electric Power, Natural Gas, and Telecommunications

The project would connect to existing facilities for electric power and natural gas through SDG&E. Telecommunications for the project would be served by existing facilities. As such, the project would not require the relocation or construction of new or expanded facilities for electric power, natural gas, or telecommunications. Impacts would be less than significant.

<u>Threshold 2: Insufficient Water Supplies</u>

The project would be required to adhere to all relevant City General Plan and regulatory requirements to ensure a long-term water supply to meet the needs of the project demands (General Plan Objective PFS 3).

The project would be served by the OWD. The OWD is completely dependent on imported water provided by the SDCWA. The OWD receives all of its potable water supply from the SDCWA's Pipeline Number 4 of the Second San Diego Aqueduct.

The 2015 OWD UWMP is based on SANDAG's 2050 Regional Growth Projections which include the City's 2005 General Plan Update. Therefore, the water demand projections are based on land uses within the OWD service area including the project. The OWD 2015 UWMP concludes that in average precipitation years, OWD has sufficient water to meet its customers' needs through 2040, based on continued commitment to conservation programs.

In order to determine existing OWD infrastructure is sufficient to serve the project, the project would require a will serve letter from OWD which specifies that water availability will be subject to all District requirements in effect at the time of project implementation and ongoing operation.

Additionally, the project would be subject to 2013 Title 24 Part 11 standards, known as CALGreen, which requires indoor water use efficiency. The project would be also subject to all OWD water conservation requirements and restrictions that are implemented to manage water supplies in accordance with the OWD's UWMP. As the project is consistent with land uses evaluated during preparation of the OWD 2015 UWMP and would be subject to all OWD imposed water conservation requirements, new or expanded supplies would not be required to meet the project needs. Additionally, the project would be consistent with the City's Threshold Standards requiring adequate water supplies be available to serve the project from existing and planned supplies. Impacts related to water supply would be less than significant.

Threshold 3: Inadequate Wastewater Treatment Capacity to Serve Demand

As stated in the Sewer Study prepared for the project (see Appendix J), the project site is located in the Telegraph Canyon Basin. The project would connect to the existing 8-inch sewer main. The wastewater outflow for the project is estimated to be approximately 26,050 gpd. This is based on an estimated sewage flow rate of 2,500 gpd per acre as defined in the City Subdivision Manual – Sewer Design Criteria. Since the needs of the project have been accounted for within the City's planning documents, the project would be consistent with the City's Threshold Standards requiring the project to meet City engineering standards and be within projected facility sewage flows. Impacts related to wastewater treatment capacity would be less than significant.

Threshold 4 and 5: Solid Waste Capacity and Regulatory Compliance

The project would be required to adhere to all relevant City General Plan and regulatory requirements to ensure efficient handling of solid waste that requires landfill disposal (General Plan Objective PFS 25).

The project would contain 120 beds. As calculated using the Integrated Waste Management Plan, estimates of yearly hospital solid waste generation per bed per year, the project would generate an additional 160.8 tons of solid waste per year of operation (City of Chula Vista 2016).

The General Plan PFS Element addresses current and future solid waste disposal facility needs. The City has an exclusive franchise agreement with Pacific Waste Services for the removal, conveyance, and disposal of any non-recyclable waste. The agreement includes a number of programs and incentives to maximize recycling and other forms of landfill diversion. Pacific Waste's parent company, Allied, owns and

operates the Otay Landfill, where most of the solid waste generated in the City is disposed of (City of Chula Vista 2005a). According to the California Department of Resources Recycling and Recovery Solid Waste Information System, the Otay Landfill has 24,514,904 cubic yards of remaining capacity as of March 31, 2012, and is anticipated to be operational until 2028 (CalRecycle 2015b). Upon its scheduled closing in 2028, waste would be transferred to the Sycamore Canyon Landfill.

Implementation of solid waste reduction policies of the General Plan and requirements of CVMC Section 8.25 would minimize the project's solid waste generation. Adherence to General Plan Policies PFS 25.1 and PFS 25.3 would ensure the efficient handling of solid waste disposal throughout the City, encourage the reduction of waste generation, and promote waste diversion from landfills. Additionally, CVMC Section 8.25.095 requires construction and demolition debris recycling including submittal of construction and demolition waste management report forms that demonstrate how the applicant would comply with diversion requirements. Based on project compliance and implementation of General Plan policies and CVMC requirements, solid waste would be diverted from the landfill to the maximum extent feasible. Additionally, there is adequate remaining capacity at the Otay Landfill to accommodate the projected waste disposal needs of the project. As a result, impacts would be less than significant.

5.12.5 Level of Significance Prior to Mitigation

The project would not require the relocation or construction of new or expanded facilities for water, wastewater treatment, storm drainage, electric power, natural gas, or telecommunications. Impacts would be less than significant.

Sufficient water supplies are planned for and would be available to serve the project based on land use consistency with water use assumptions used in the OWD UWMP. As the project would not require new or expanded water supplied, impacts would be less than significant.

The wastewater outflow for the project is estimated to be approximately 26,050 gpd. This is based on an estimated sewage flow rate of 2,500 gpd per acre as defined in the City Subdivision Manual – Sewer Design Criteria. The Sewer Capacity Study (see Appendix J) prepared for the project identifies project requirements to meet City Engineering standards for sewer. Therefore, the project would have a less than significant impact related to wastewater capacity.

The Otay Landfill has sufficient capacity to accommodate the projected increase in waste disposal needs. Additionally, upon its scheduled closing in 2028, waste would be transferred to the Sycamore Canyon Landfill. Therefore, impacts associated with insufficient permitted capacity to accommodate the project's solid waste disposal needs would be less than significant.

5.12.6 Mitigation Measures

All impacts related to public utilities would be less than significant. No mitigation measures would be required.

5.13 Wildfire

This section of the Environmental Impact Report (EIR) analyzes potential impacts related to wildfire that could result from implementation of the Eastlake Behavioral Health Hospital (project).

5.13.1 Existing Conditions

5.13.1.1 Wildfire Hazards

Threat from wildfire hazards is determined based on a number of factors, including fuel loading (vegetation); topography; climatic conditions, such as wind, humidity, and temperature; and the proximity of structures and urban development to fire hazards. Wildland fire hazards are most pronounced in wildland-urban interface areas, or where urban development is located close to open space areas where vegetation can serve as fuel. Generally, the periods of greatest risk for wildland fire are the late summer and early fall when vegetation is at its driest. Human activity, including residential and agricultural burning, campfires, and the use of fireworks can all trigger fires. Natural causes such as lightning strikes may also start fires.

The project site is not mapped within any wildfire hazard areas as designated by California Department of Forestry and Fire Prevention (CAL FIRE) (Figure 5.13-1).

5.13.1.2 Disaster Preparedness

The City of Chula Vista (City) Fire Department provides safety and education about fire prevention and disaster preparedness in the case of a wildfire or other natural disaster. Key to the City's disaster protection awareness is the "Ready, Set, Go!" program which explains how to be prepared, practice safety, and evacuate timely (https://www.chulavistaca.gov/departments/fire-department/emergency-management/disaster-preparedness).

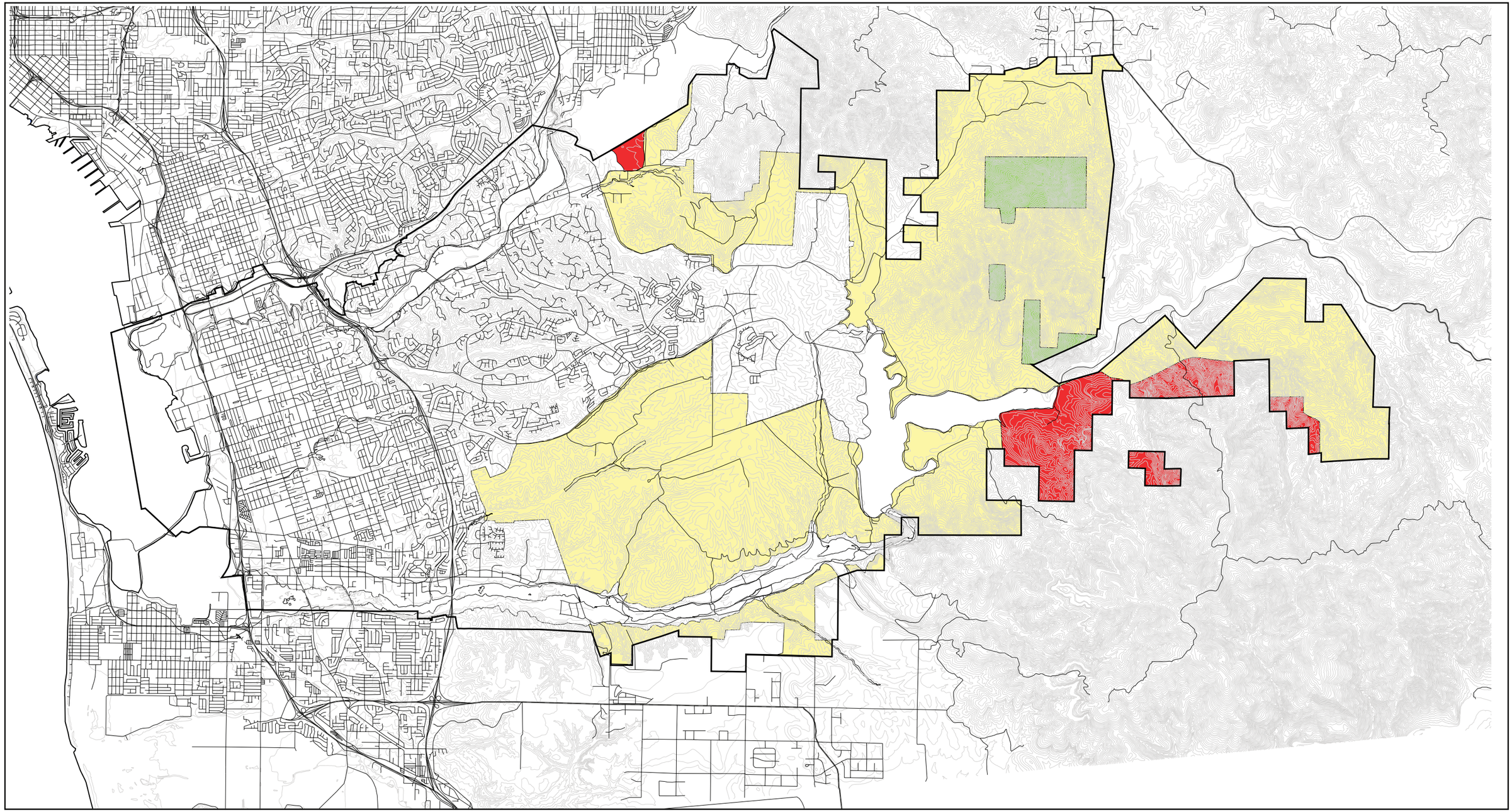
5.13.2 Regulatory Setting

5.13.2.1 State

California Wildland-Urban Interface Code

On September 20, 2005, the California Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the California Building Code (CBC) (California Code of Regulations [CCR] Title 24, Part 2). Section 701A of the CBC includes regulations addressing materials and construction methods for exterior wildfire exposure and applies to new buildings located in State Responsibility Areas or Very High Fire Hazard Severity Zones in Local Response Areas.

Map Source: Ninyo & Moore, 2003



General Plan Area

Wildfire hazard areas*

*Areas potentially subject to risk of wildfires, as indicated and designated by California Department of Forestry and Fire Prevention (CDF, 1999).

Very high hazard

Very high fire hazard severity zone.

High hazard

Wildland areas that may contain substantial forest fire risks and hazards.

Undetermined hazard

Wildland areas, that may contain substantial forest fire risks and hazards, however are not under the jurisdiction of the California Department of Forestry and Fire Prevention (1999).

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FIGURE 5.13-1
Wildfire Hazards Map

California Fire Code

The 2016 California Fire Code (CCR Title 24, Part 9) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

5.13.2.2 Local

San Diego County Multi-Jurisdictional Hazard Mitigation Plan

The County Office of Emergency Services (OES) and Unified Disaster Council administer the San Diego County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), a countywide plan to identify risks and minimize damage from natural and man-made disasters (County of San Diego 2010). The primary goals of the plan include efforts to promote and provide compliance with applicable regulatory requirements (including through the promulgation/enhancement of local requirements for participating agencies including the City), increase public awareness and understanding of hazard-related issues, and foster inter-jurisdictional coordination. In April 2011, the Chula Vista City Council approved Resolution 2011-067, which adopted the 2010 San Diego County MJHMP as the official Multi-Jurisdictional Hazard Mitigation Plan for the City.

The OES also administers the County Unified San Diego County Emergency Services Organization and County of San Diego Operational Area Emergency Operations Plan (County of San Diego 2018), which addresses emergency issues including evacuation and provides guidance for responding to major emergencies and disasters. Specifically, Annex Q (Evacuation) of the plan notes that: “Primary evacuation routes consist of major interstates, highways, and prime arterials within San Diego County …,” with identified primary evacuation routes in the project site vicinity including State Route 125.

Community Emergency Response Team Program

The City provides a Community Emergency Response Team (CERT) program that offers training to citizens for effective and efficient response to emergency situations without placing themselves or others in unnecessary danger. Specifically, CERT training includes guidance on managing utilities, putting out small fires, providing basic

emergency medical aid, search and rescue operations, volunteer organization, and collection of disaster information to support first responders.

City of Chula Vista General Plan

The Environmental Element of the City's General Plan identifies fire risk zones throughout the City and provides direction to reduce hazards associated with such risk. The objectives and policy within the Environmental Element relevant to the project includes the following:

OBJECTIVE E 16

Minimize the risk of injury and property damage associated with wildland fire hazards.

Policy E 16: Implement brush management programs that are consistent with the Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan and the City's Urban-Wildland Interface Code, within urban development and open space interface areas in order to reduce potential wildland fire hazards.

City of Chula Vista Municipal Code

The Chula Vista Municipal Code (CVMC), Title 15, Chapter 15.36 (Fire Code) formally adopts the California Fire Code, 2019 Edition, as the fire code for the City. CVMC Chapter 15.38, *et seq*., also known as the Urban-Wildland Fire Interface Code establishes regulations mitigating the hazard to life and property from intrusion of fire from wildland fire exposures, fire exposures from adjacent structures and prevention of structure fires from spreading to wildland fuels (CVMC Section 15.38.010).

CVMC Title 19, Chapter 19.09, *et seq*. (Growth Management Ordinance; GMO) delineates the City's Threshold Standards for City facilities and services. The GMO is intended to implement the policy framework established by the City's General Plan and GMP. CVMC Section 19.09.040 identifies the Threshold Standards for the maintenance and improvement of the current level of services related to fire and emergency services. The City Threshold Standards are included in Section 5.13.3.

5.13.3 Thresholds of Significance

Consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, impacts related to wildfire would be significant if the project would:

1. Substantially impair an adopted emergency response plan or emergency evacuation plan.

2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

4. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

City Threshold Standards relevant to this section, as delineated in CVMC Sections 19.09.040 and 19.09.050, include the following:

- Section 19.09.040B (Fire and Emergency Medical Services) specifically requires that "properly equipped and staffed fire and medical shall respond to calls throughout the City within seven minutes in 80% of the cases."

5.13.4 Impacts

Threshold 1: Emergency Response Plans

As shown in Figure 5.13-1, the project site is not located within any wildfire hazard area and proposed changes to the existing circulation system would be limited to improvements to the driveway accessing the project site off of Showroom Place. This driveway would not affect the existing roadway network. Similarly, the Local Mobility Analysis portion of the Traffic Impact Analysis prepared for the project (see Appendix I) identified the project's inclusion of a traffic signal at the intersection of Harold Place/Fenton Street. This improvement would not physically interfere with emergency response or evacuation.

The City is a participating agency in a number of related local and State plans including the MHMP and CERT. The project would not interfere with local and regional emergency response and evacuation plans as it would not obstruct any existing roadways or designated evacuation routes. Likewise, due to the project's proximity to local fire stations, City response times would continue to be maintained (see Section 5.10 of this EIR). Impacts would be less than significant.

Threshold 2: Pollutants from Wildfire

The potential for wildland fires represents a hazard, particularly within areas adjacent to open space or within close proximity to wildland fuels. Fire-related pollutants (i.e., smoke, embers, and water runoff) could be exacerbated if new construction is not fire risk prepared. The project would be required to comply with the City's Fire Code and Urban Wildland-Urban Interface Code for all construction and design details relating to building materials, interior safety devices, and brush management to ensure that wildfire risks are not exacerbated. For example, the landscaped slopes to the north and east of

the project site would be set back from the building. The project would not change the allowable land uses within the project site and it would not increase residential uses that could affect the number of homes at fire risk. However, the project could increase the number of persons that would be located within the project site and potentially subject to potential wildfire hazards. The project would adhere to all fire standards, including project and evacuation plans being reviewed by the City Fire Department to ensure that construction of the project would not exacerbate fire risk and/or lead to possible increased exposure to fire-related pollutants. Upon approval by the Fire Department, impacts would be less than significant.

Threshold 3: Infrastructure Improvements

As described in Threshold 1, the project would only require the construction of a single traffic signal at the intersection of Harold Place/Fenton Street. All utility improvements would occur on-site and connect to existing lines. Therefore, the project would not exacerbate fire risk related to infrastructure improvements. Impacts would be less than significant.

Threshold 4: Flooding or Landslides

As detailed in Section 5.8 of this EIR, impacts related to flooding and changes to drainage patterns were found to be less than significant. The project includes on-site hydromodification that would reduce runoff compared to the existing conditions and utilize the City's existing storm drain system. Landscaped slopes would be maintained to ensure soil erosion and runoff are avoided and the project would not be subject to downstream flooding. Therefore, the project would not result in post-fire flooding, landslides, or drainage changes. Impacts would be less than significant.

5.13.5 Level of Significance Prior to Mitigation

The project would not require change to the local circulation or infrastructure that would impair implementation of, or physically interfere with, emergency response plans or emergency evacuation plans. Additionally, the project would be reviewed by the Fire Department to ensure compliance with all regulations and requirements to protect off-site exposure and exacerbation of fire risks. The project would not change drainage patterns nor leave soils exposed in a manner that would result in post-fire flooding or slope instability. All impacts related to wildfire would be less than significant.

5.13.6 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

6.0 CUMULATIVE IMPACTS

Section 15130(a) of the California Environmental Quality Act (CEQA) Guidelines requires a discussion of cumulative impacts of a project "when the project's incremental effect is cumulatively considerable." Cumulatively considerable, as defined in CEQA Guidelines Section 15065(c), "means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." According to CEQA Guidelines Section 15130, the discussion of cumulative effects "need not be provided in as great detail as is provided the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness."

According to Section 15130(b)(1) of the CEQA Guidelines, the discussion of cumulative effects is to be on either (a) "a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those impacts outside the control of the agency," or (b) "a summary of projections contained in an adopted plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency."

Cumulative impact discussions for each environmental topic area are provided below. As established in the CEQA Guidelines, related projects consist of "closely related past, present, and reasonably foreseeable probable future projects that would likely result in similar impacts and are located in the same geographic area." (CEQA Guidelines Section 15355). There is a Sharp Hospital located approximately six miles east, in eastern Chula Vista; however, this existing hospital is far enough away to not be affected nor affect project impact. The project is located within an area which is substantially built out, but where additional growth could occur, mostly as infill projects. The project, itself, would not cause or contribute to the current growth trends. For this reason, the list of projects method was not used, rather to address cumulative impacts in a more regional scope; planning and previous environmental documents were used in this analysis.

6.1 Plans Considered for Cumulative Effects Analysis

This cumulative analysis relies on local and regional plans and associated CEQA documents to serve as the basis for the analysis of potential cumulative effects of the project. The following regional and local planning documents used in this analysis include: the San Diego Air Pollution Control District (SDAPCD) Regional Air Quality Strategy (RAQS), San Diego Association of Governments (SANDAG) Regional Comprehensive Plan (RCP), Water Quality Control Plan for the San Diego Basin, Regional Water Facilities Master Plan, the City of Chua Vista's (City's) General Plan, General Plan Final Environmental Impact Report, Eastlake II General Development Plan (GDP) and Business Center II Supplemental Sectional Planning Area (SPA) Plan, and Mitigated Negative

Declaration, Eastlake II GDP and Eastlake I SPA Amendments. These plans are discussed throughout Chapter 5.0, Environmental Analysis, and are incorporated by reference in the appropriate sections of the cumulative analysis below.

6.2 Cumulative Impact Analysis

6.2.1 Land Use

The project is surrounded by existing development and infrastructure and would not physically divide the surrounding community, but would rather provide infill development on a vacant parcel surrounded by existing commercial, residential, and transportation facilities. Specifically, the project site sits within designated commercial use space and the proposed land use is consistent with land use patterns that are established in relevant planning documents including the City's General Plan, Eastlake II GDP and Business Center II Supplemental SPA Plan. Pursuant to City regulations, the project would require approval of a Conditional Use Permit (CUP) and Design Review to ensure the project design adheres to all development standards and design requirements. As discussed in the Local Mobility Analysis prepared as part of the project TIA for the project (see Appendix I), the project would not result in a degradation of the level of service on project area roadways in conflict with City policies and plans related to the maintenance of adequate roadway capacity. Extension of public utilities would not be required; the project would connect to existing pipelines for water and wastewater which are adequate to support the project. Overall, the project would be consistent with adopted plans and planning documents and would result in a less than significant contribution to cumulative land use impacts.

6.2.2 Landform Alteration/Aesthetics

The cumulative study area associated with aesthetics impacts is the geographic area from which a project is likely to be seen, based on topography and land use patterns. As described in Section 5.2, the project would not result in any significant impacts related to aesthetics. The project site is flat and does not contain any trees, rock outcroppings, or historic buildings and is not visible from a state scenic highway. The project would not substantially alter a scenic vista because there are no officially designated scenic vistas in the immediate project vicinity and major landforms are not visible from the project site. The project site does contain views of the foothills of the San Miguel Mountains to the north. The proposed structure would be a single story and project landscape would be primarily shrubs, groundcover, and grasses, which would continue to allow such views from within the project site. Likewise, the project would not result in changes to landform, and proposed landscaping along with the architectural design of the building (muted colors of stucco, with earth-toned glass and metal accents) would provide for an aesthetically pleasing view of the project site, consistent with the business park. The project would include increased setbacks and heavy landscaping along the eastern and northern project boundaries to buffer the project site from residential uses as required by the Eastlake II

GDP/Business Center II Supplemental SPA Plan and to ensure the project's visual character is complimentary of its surrounding neighborhood. Approval of the project would require design review to further ensure the project adheres to all regulations and policies relating to visual character and aesthetics.

The project would be consistent with the character of the Business Center itself, in terms of the size and scale of the proposed structure. Interior lighting would be dimmed at night and exterior glass would be treated with anti-reflective materials to ensure no new light and glare is produced during day or nighttime that would affect the surrounding neighborhoods. Overall, because the project would be consistent with adopted plans and planning documents and would require approval of a Design Review Permit, it would result in a less than significant contribution to cumulative land form and aesthetics impacts.

6.2.3 Air Quality

Regional air quality impacts within the San Diego Air Basin (SDAB) are managed by the SDAPCD through the development and implementation of the San Diego RAQS. The growth projections used by the SDAPCD to develop the RAQS emissions budgets are based on the population, vehicle trends, and land use plans developed in General Plans and used by SANDAG in the development of the regional transportation plans and sustainable communities strategy. If individual projects are not consistent with anticipated growth a conflict with the RAQs would be identified. As multiple projects within the area conflict with the RAQs they would collectively contribute to a cumulative obstruction to the implementation of the plan. Alternatively, projects that propose development that is consistent with the growth anticipated by SANDAG's growth projections and/or the General Plan would not conflict with the RAQS and would not contribute to a cumulative impact.

Section 5.3.4 (Threshold 1) evaluated whether the project would be consistent with the RAQS. It was determined that because the project would be consistent with the City's General Plan, the Chula Vista Municipal Code (CVMC), and the Eastlake II GDP/Business Center II Supplemental SPA Plan, the project would be consistent with the growth projections anticipated by the San Diego Association of Governments (SANDAG) and, therefore, be consistent with the RAQS.

Additionally, construction and operation of the project would generate emissions less than applicable SDAPCD significance thresholds (see Tables 5.3-3 and 5.3-4). Therefore, the project would not individually obstruct or conflict with the implementation of the RAQS, and implementation of the project would not contribute to a cumulative impact related to air quality; impacts would be less than significant.

6.2.4 Energy

The California Code of Regulations, Title 24, Part 6 is the California Energy Efficiency Standards for Residential and Nonresidential Buildings (also known as the California Energy Code). Additionally, the California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. These regulations were developed to reduce energy use on a regional level, and all future projects are required to comply with these requirements. As described in Section 5.4 (Threshold 1), the project would not result in the use of excessive amounts of fuel or other forms of energy during construction or operation. Additionally, the project would be required to meet the mandatory energy requirements of 2019 CALGreen and the 2019 California Energy Code. Therefore, because the project would comply with regulations and policies that would reduce impacts associated with energy use to less than significant, the project's contribution to cumulative impacts would be less than significant.

6.2.5 Geology and Soils

Potential impacts related to seismic hazards would be specific to the project site. Compliance with City regulations, the California Building Code, and adherence to the grading and site preparation recommendations contained within the project-specific Geotechnical Evaluation (see Appendix D) would ensure that the project would not expose people or structures to seismic hazards. Compliance with the City's General Construction Permit and specific best management practices (BMPs) outlined in the project's Storm Water Quality Management Plan (SWMQP; see Appendix E) would further ensure that impacts related to soil erosion and the loss of topsoil during both construction and operation would be less than significant. Additionally, the project would not grade into highly sensitive geologic formations that could result in impacts to sensitive paleontological resources. Therefore, because the project would adhere to all general regulatory requirements and project-specific recommendations that would reduce impacts associated with geology and soils to less than significant, and the project would not result in the loss of paleontological resources, the project's contribution to any cumulative impacts would be less than significant.

6.2.6 Greenhouse Gas Emissions

The project would result in a total of 2,986 metric tons carbon dioxide equivalent (MT CO_2E) annually. Emissions are projected to be less than the 3,000 MT CO_2E screening level. By emitting less than 3,000 MT CO_2E, the project's contribution of GHGs to cumulative statewide emissions would be less than cumulatively considerable. Additionally, the project would not conflict with any local or state plan, policy, or regulation aimed at reducing GHG emissions from land use and development. Therefore, the

project's contribution to cumulative impacts related to GHG emissions would be less than significant.

6.2.7 Hazards and Hazardous Materials

The project would comply with all applicable federal, state, and local regulations, including California Occupational Safety and Health Administration and Department of Environmental Health, and the California Medical Waste Management Act for handling of hazardous and medical waste materials. The project is not listed as a hazardous materials site compiled pursuant to Government Code Section 65962.5. No known or suspected recognized environmental conditions (RECs), Controlled RECs, or Historical RECs were identified on the project site or adjacent properties. The project site is not located within two miles of a public airport (or within an airport land use plan), or within the vicinity of a private airstrip. There are three schools located within the vicinity of the project: Salt Creek Elementary School, Kid Ventures Montessori Academy, and Eastlake Middle School. These schools are located approximately 1.2 miles southeast, 0.2 mile south, and 1.5 miles east, respectively, of the project site. Kid Ventures Montessori Academy is located within one-quarter mile of the project and while the project may handle some amount of hazardous materials related to hospital uses, federal and state regulations require adherence to specific guidelines regarding the use, transportation, and disposal, of hazardous materials. The project would be designed in accordance with applicable safety standards and would adhere to all City of Chula Vista Fire Department requirements. Therefore, through implementation of all regulatory standards would ensure that the project's contribution to cumulative impacts related to hazards and hazardous materials would be less than significant.

6.2.8 Hydrology and Water Quality

The project would not violate water quality standards, deplete groundwater resources, alter drainage patterns, release pollutants due to natural disasters, or conflict with Water Quality Control or Sustainable Groundwater Management Plans. Project construction activities would comply with all regulatory requirements outlined in the CVMC, as well as the City's Jurisdictional Runoff Management Program, and the BMP Design Manual. These planning documents include strategies for development projects to implement to avoid impacts to water quality. The project, like all City projects, would adhere to the requirements therein to minimize disturbance, protect slopes, reduce erosion, and limit or prevent various pollutants from entering surface water runoff. The cumulative effect of implementing these documents would be improved water quality.

The BMPs for the project have been designed to preclude potential hydrology impacts as required by state and local regulations. The project includes two biofiltration basins, as structural BMPs and hydromodification, which would decrease runoff volumes from existing conditions and assist in the reduction of storm water flow volume and velocity.

Overall, the project would comply with all applicable federal, state, and local water quality standards and planning documents. Therefore, implementation of project design features would ensure that the project's contribution to cumulative impacts related to hydrology and water quality would be less than significant.

6.2.9 Noise

Project construction noise levels would range from 56 to 68 A-weighted decibels average sound level [dB(A) L_{eq}] at adjacent uses (see Table 5.9-4), which could be heard above ambient conditions. However, construction noise would be temporary and would cease upon project completion. The project's compliance with the CVMC Chapter 17.24.040 would ensure that construction would only occur during allowable days/hours. Therefore, compliance with regulatory standards would ensure that the project's contribution to cumulative noise impacts during construction would be less than significant. Because construction activities associated with the project would comply with the applicable regulations for construction, cumulative groundborne vibration and noise impacts from construction would likewise be less than significant.

The project would increase traffic volumes on local roadways. However, the project would not substantially alter the vehicle classifications mix on local or regional roadways, nor would the project alter the speed on an existing roadway or create a new roadway. As shown in Table 5.9-6, noise levels at the proposed exterior activity areas and the staff outdoor area would range from 31 to 45 community noise equivalent level (CNEL), which would be compatible with the City's standard of 65 CNEL. Therefore, the project would not contribute to cumulative noise impacts associated with on-site traffic noise. With respect to off-site traffic noise, Table 5.9-8 summarizes cumulative traffic noise level increases due to the project. The total year 2035 plus project increase over the existing condition would range from less than 1 dB to 5 dB. However, the project's contribution to the increase over ambient noise levels would be 1 dB or less. Therefore, the project would result in a less than cumulatively considerable off-site noise level increase, and cumulative traffic noise impacts associated with the project would be less than significant.

The project's on-site operational noise generation would adhere to City standards relating to property line noise impacts. As shown in Table 5.9-9, property line noise levels with and without operation of the proposed emergency generator are not projected to exceed the applicable residential and commercial CVMC limits. Therefore, the project would not contribution to cumulative noise impacts associated with on-site noise generation.

6.2.10 Public Services and Recreation

Implementation of the project would result in an incremental increase in demand for public services, including fire protection and emergency services, and police protection. The project would not increase the residential population, and therefore would not increase the demand for parks, recreational facilities, schools, or libraries. The project site is located

approximately one mile from two fire stations: Fire Station 8 and Fire Station 6. It is anticipated that fire response time to the project site would fall within the City's Threshold Standards of seven minutes, and there would not be a need to physically alter or construct a facility. Therefore, the project's contribution to a cumulatively significant impact relative to physical impacts associated with the provision of fire protection/emergency medical services would be less than significant.

The project site is located less than eight miles from the Chula Vista Police Department (CVPD) Headquarters. Overall, the CVPD has not achieved performance objectives established by the City's Threshold Standards and implementation of the project could contribute to increased demand for police protection. Consistent with the City's General Plan, the project would be required to pay a Public Facilities Development Impact Fee, which would be used exclusively for future facility improvements necessary to ensure that the development contributes its fair share of the cost of police facilities and equipment determined to be necessary to adequately accommodate new development in the City. Through compliance with the General Plan, it is ensued that the project's contribution to a cumulatively significant impact relative to physical impacts associated with the provision of police protection would be less than significant.

6.2.11 Transportation

The project prepared a Local Mobility Analysis (LMA; see Appendix I) to identify project effects on the roadway operations in the project study area and recommend project improvements to address noted deficiencies as a means to ensue consistency with City policies and plans related to the maintenance of adequate roadway capacity (i.e., General Plan LUT Objective 21). A cumulative project effect is one in which project trips contribute to a cause or add to an already deficient intersection or roadway. Criteria for determining such an effect is detailed in Section 7.0 of the project Traffic Impact Analysis (TIA; see Appendix I).

The LMA studied two cumulative scenarios: Near-Term (study horizon year 2025) and Long-Term (study horizon year 2035). Based on the City substantial effect criteria, the LMA found that under both cumulative scenarios, the project would affect traffic flow at the following intersections:

- Harold Place/Fenton Street
- Eastlake Parkway/Otay Lakes Road
- Hunte Parkway/Otay Lakes Road
- Eastlake Parkway/Fenton Street

As detailed in the project description, the project would commit funds to the installation of a traffic signal at Harold Place/Fenton Street, and provide a fair share towards the provision of Adaptive Traffic Signal Control (ATSC) modules to all signalized intersections along Otay Lakes Road between Eastlake Parkway and Hunte Parkway. The installation

of the ATSC would allow traffic to flow at an acceptable level resulting in the project's consistency with local mobility plans, including the General Plan's requirement that roads operate at an acceptable level.

A SANDAG Vehicle Miles Traveled (VMT) Map was prepared for the project (see Figure 5.11-1). The map represents a cumulative analysis. The OPR Transportation Technical Advisory notes that the threshold for determination of a significant transportation VMT impact occurs at or above 85 percent of the regional VMT mean. As shown in Figure 5.11-1 and Table 5.11-3, the project is at 21.35 percent of the regional mean. Therefore, the project would be screened out of the requirement for a detailed VMT analysis and would not result in cumulative impacts related to VMT. Therefore, the project's contribution to the cumulative impacts related to transportation and circulation would be less than significant.

6.2.12 Utilities and Service Systems

The project site is served by adequate wastewater, water, and storm water systems. The project would connect to the existing underground sewer, water and storm water pipelines located within the cul-de-sac at the terminus of Showroom Place. Solid waste would be diverted and recycled consistent with the CVMC, with remaining waste sent to the Otay Landfill.

Cumulative impacts could occur if the project's utility and service demands in combination with other cumulative projects would exceed that anticipated in regional and local planning documents. The project is consistent with the Eastlake II GDP and is an allowed use subject to a Conditional Use Permit. Therefore, construction of the project has been anticipated and provided for in the City's General Plan, Otay Water District Urban Water Management Plan, the City's Wastewater Master Plan, and other relevant planning documents. Therefore, the utility needs of the project have been anticipated and would not affect the availability to the project site. As no new or expanded sources of water supply would need to be developed to meet regional demands, and no new facilities would need to be constructed, the project's contribution to a significant cumulative impact related to water supply would be less than significant.

6.2.13 Wildfire

The project would not interfere with emergency response plans, exacerbate wildfire risks resulting in the release of pollutants or the installation of new infrastructure, nor expose people to flooding or landslides from post-fire instability. Project design requires review and approval by the Chula Vista Fire Department and compliance with regulatory standards related to emergency access, treatment of brush and brush management, preservation of drainage flows and floodplain safety. Inclusion of these design features would ensure that the project's contribution to cumulative impacts related to wildfire would be less than significant.

7.0 PROJECT ALTERNATIVES

In order to fully evaluate the environmental effects of proposed projects, the California Environmental Quality Act (CEQA) mandates that alternatives to a proposed project be analyzed. Section 15127.6 of the CEQA Guidelines requires the discussion of "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 the evaluation of the comparative merits of the alternatives. The alternatives discussion is intended to "focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project," even if these alternatives impeded to some degree the attainment of the project objectives.

As discussed in Chapter 5.0 of this Environmental Impact Report (EIR), no significant effects were identified as a result of implementation of the Eastlake Behavioral Health Hospital project (project). Therefore, to adhere to the CEQA Guidelines in developing the alternatives to be addressed, consideration was given to whether there are any alternatives that would incrementally reduce any potential significant impacts while meeting the basic objectives of the project. For example, it was determined that the project would generate 2,986 metric tons of carbon dioxide equivalent (MT CO_2E) annually, which is less than the 3,000 MT CO_2E residential/commercial screening threshold and therefore, a less than significant impact. Thus, the alternatives analysis herein focuses on whether there is a project that achieves the objectives while generating less than 2,986 MT CO_2E. While such an alternative would also result in a less than significant impact, it would result in incrementally lower greenhouse gas (GHG) emissions compared to the project. All alternatives are also compared with their ability to meet project objectives.

As identified in Chapter 3.0, the project contains the following primary objectives:

- Provide quality, safe, cost-effective, socially responsible health care services that focus on behavioral health.

- Construct a behavioral healthcare facility compliant with the state's Office of Statewide Health Planning and Development seismic safety regulations, right sized for the growth of patient volumes.

- Provide ancillary services including dietary services, on-site pharmacy, and outdoor activities.

- Facilitate a responsible partnership between Scripps and Acadia healthcare to provide expert, specialized care in behavioral health.

- Locate a facility at a site that best serves the needs of the community including:
  - Location in an area underserved by inpatient beds (based on recommendations from the California Hospital Association that there be 50 inpatient behavioral health beds for every 100,000 population);
  - Proximity to major road network;
  - Appropriate size (10+ undeveloped acres) to construct a one-story facility; and
  - Zoning that allows for a hospital use.

This chapter addresses alternatives considered but rejected, a No Project/Medical Office Building Alternative, and a Reduced Intensity Alternative. Each major issue area included in the impact analysis for the project has also been given consideration in the alternatives impact analyses. An impact comparison of the project and the alternatives is shown in Table 7-1.

TABLE 7-1
COMPARISON OF PROJECT AND ALTERNATIVES IMPACTS SUMMARY

Environmental Issue Area	Project	No Project/Medical Office Building Alternative	Reduced Intensity Alternative
Land Use	LS	Same as the project (LS)	Same as the project (LS)
Landform Alteration/ Aesthetics	LS	Greater than the project (LS)	Same as the project (LS)
Air Quality	LS	Greater than the project (LS)	Less than the project (LS)
Energy	LS	Greater than the project (LS)	Less than the project (SM)
Geology and Soils	LS	Same as the project (LS)	Same as the project (LS)
Greenhouse Gas Emissions	LS	Greater than the project (SM)	Less than the project (LS)
Hazards and Hazardous Materials	LS	Same as the project (LS)	Same as the project (LS)
Hydrology and Water Quality	LS	Same as the project (LS)	Same as the project (LS)
Noise	LS	Greater than the project (SM)*	Same as the project (LS)
Public Services and Recreation	LS	Same as the project (LS)	Same as the project (LS)
Transportation	LS	Same as the project (LS)	Same as the project (LS)
Utilities and Service Systems	LS	Same as the project (LS)	Less than the project (LS)
Wildfire	LS	Same as the project (LS)	Same as the project (LS)

NI = no impact; LS = less than significant; SM = significant and mitigated
* Impacts could remain significant and unmitigated. See subsection 7.2.6.

As required under Section 15127.6(e)(2) of the CEQA Guidelines, the EIR must identify the environmentally superior alternative. Pursuant to the CEQA Guidelines, if the No Project Alternative is determined to be the most environmentally superior alternative then another alternative must be identified as the environmentally superior alternative. Section 7.4 discusses the Environmentally Superior Alternative.

7.1 Alternatives Considered but Rejected

This subsection of the EIR is provided consistent with CEQA Guidelines which state that the EIR need examine in detail only a reasonable range of alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project. Further, the EIR should identify any alternatives that were considered by the lead agency but were rejected and briefly explain the reasons underlying the lead agency's determination. Among factors used to eliminate alternatives from detailed consideration in the EIR is failure to meet most of the basic project objectives or inability to avoid significant environmental effects (CEQA Guidelines 15126.6(c)). Consistent with the requirement to address a "reasonable range" of alternatives, another consideration for excluding an alternative from further study includes similarity to other alternatives that are addressed in detail.

7.1.1 Alternate Location Alternative

According to the CEQA Guidelines (Section 15126.6)(f)(2)(A):

> The key question and first step in (alternative location) analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.

A number of alternative sites were considered in an attempt to meet the required criteria, as identified in the project objectives. None of the alternative sites were located at any closer proximity to major road networks, nor could accommodate the size of the structure or could be developed without a conditional use permit. The project site was selected, in addition to meeting the siting criteria, because it provides a flat graded area which would avoid additional site clearing, excavation, grading and compaction.

7.2 No Project/Medical Office Building Alternative

CEQA requires the inclusion of a No Project Alternative to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. Pursuant to CEQA Guidelines Section 15126.6(e)(3), the discussion of the No Project Alternative proceeds along one of two lines:

> (B) If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. In certain instances, the no project alternative means "no build" wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.
>
> (C) After defining the no project alternative …, the lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

In this analysis, the No Project/Medical Office Alternative would be the examination of what could occur on the project site under existing plans and policies consistent with CEQA Guidelines Section 15126.6(e)(3)(C). Specifically, the No Project/Medical Office Building Alternative assumes the construction of a medical office building which could be developed on the project site by-right under the existing zoning regulations. Based on the existing development and zoning regulations, a No Project/Medical Office Building Alternative could consist of two structures: one three-story structure and the other a two-story structure totaling approximately 150,000 square feet. This total square footage is approximately 60,000 square feet greater than the project, representing a 40 percent increase is development.

In order to meet the parking requirements, the No Project Alternative would also need to include a parking structure (i.e., three stories) along with surface parking to accommodate approximately 800 parking spaces. A preliminary conceptual site plan of the No Project/Medical Office Alternative is illustrated in Figure 7-1. As shown, the medical buildings could be located along the north and eastern perimeters, with landscaping as required by the Eastlake II General Development Plan (GDP)/Business Center II Supplemental SPA Plan.

Map Source: SWA Architects

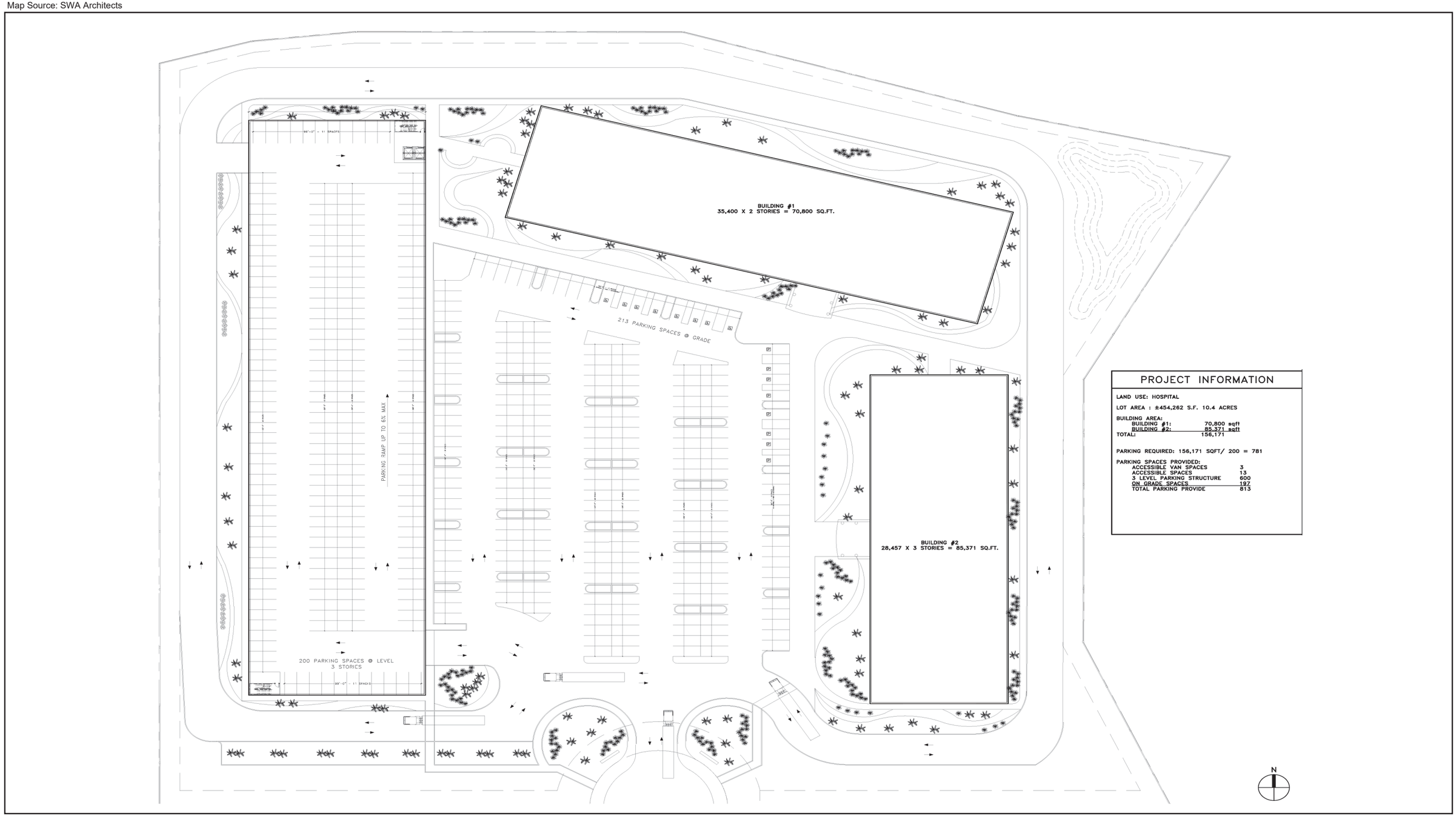

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FIGURE 7-1

No Project/Medical Office

Alternative Conceptual Site Plan

A comparative analysis of the impacts associated with this alternative and the project is provided below.

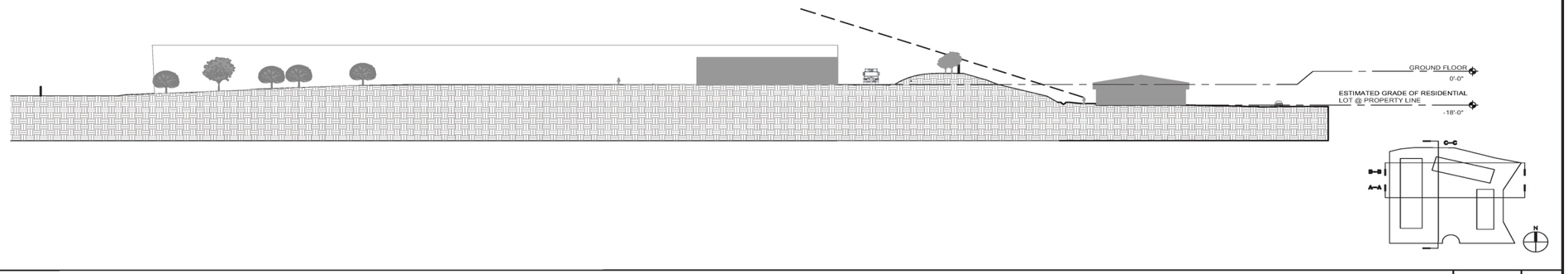
7.2.1 Land Use

The No Project/Medical Office Building Alternative does not include any features that would have the potential to physically divide an established community and would not conflict with any policies of the General Plan, Eastlake II GDP, Business Center II Supplemental Sectional Planning Area Plan, Municipal Code/Planned Communities District Zones or Multiple Species Conservation Program Subarea Plan. This alternative would be allowed by-right (no requirement for a Conditional Use Permit) assuming conformance with all development regulations including building setbacks, landscaping, and architectural design. Therefore, land use impacts under the No Project/Medical Office Building Alternative would be less than significant, the same compared to the project.

7.2.2 Landform Alteration/ Aesthetics

The No Project/Medical Office Building Alternative could require the construction of two buildings totaling approximately 150,000 square feet. As shown in Figure 7-2, Building #1 would be a two-story structure located in the northern portion of the project site; Building #2 would be a three-story structure located along the project site's eastern perimeter. The placement of these medical buildings on a currently vacant lot would, like the project, result in a change to the visual character of the project site. Consistent with City development standards and regulations, this alternative would likely be designed using muted colors and earth toned accents and would be consistent with the existing pattern of development, which includes taller structures and like the project, the impacts would be less than significant. However as shown in Figure 7-2, due to the increased size and mass (approximately 40 percent greater than the project), the placement and height of the structures under this alternative, would be visible to downslope neighbors and could result in the impairment of views throughout the project site. Additionally, although lighting, for security, construction, and operation would conform to regulations relating to lumens, orientation, and anti-reflective materials; lighting under this alternative could be visible to northern and eastern residences. Overall, while impacts to scenic vistas, scenic resources, visual character, and lighting under the No Project/Medical Office Building Alternative would be less than significant, they would be greater compared to the project.

Map Source: SWA Architects



SITE SECTION C–C | 1"=40'–0" | C

SITE SECTION B–B | 1"=40'–0" | B

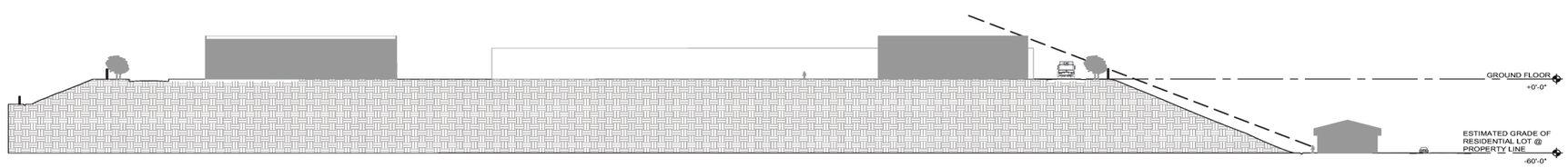


FIGURE 7-2
No Project/Medical Office
Alternative Site Sections

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7.2.3 Air Quality

Like the project, the No Project/Medical Office Building Alternative would be consistent with the General Plan land use designation and would not result in growth in population beyond that anticipated by the General Plan. The No Project/Medical Office Building Alternative would construct two buildings totaling approximately 150,000 square feet, which is approximately 60,000 square feet bigger than the project. As shown in Table 7-2, the No Project/Medical Office Building Alternative could result in the generation of 7,809 average daily traffic (ADT), which is approximately 75 percent greater than the number of ADTs generated under the project.

TABLE 7-2
PROJECT TRIP GENERATION SUMMARY: MEDICAL OFFICE BUILDING

		Daily Trip Ends (ADT)		AM Peak Hour					PM Peak Hour				
						Volume					Volume		
Land Use	Quantity	Rate*	Volume	% of ADT	In:Out Split	In	Out	Total	% of ADT	In:Out Split	In	Out	Total
Medical Office Building	156,171	50/KSF	7.809	6%	80:20	375	94	469	11%	30:70	258	601	859
TOTAL			**7.809**			**375**	**94**	**469**			**258**	**601**	**859**

*Rate is based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.

Based on the size and generation of ADTs, it would be concluded that both construction and operational emissions of air quality pollutants would be greater compared to the project.

7.2.4 Energy

Like the project, the No Project/Medical Office Building Alternative would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Due to the increased size of the facility, however, the No Project/Medical Office Building Alternative would result in incrementally greater short-term and long-term energy use, than the project.

7.2.5 Geology and Soils

Although the No Project/Medical Office Building Alternative would result in the construction of a larger facility overall and greater intensity related to ADT, potential impacts related to geology and soils would be the same. Compliance with City regulations, the California Building Code, and adherence to the grading and site preparation recommendations presented in the geotechnical investigation would ensure that the No Project/Medical Office Building Alternative would not expose people or structures to seismic hazards or unstable soils. Similarly, compliance with the General Construction Permit and Best Management Practices outlined in the required Storm Water Quality Management Plan would ensure that impacts related to soil erosion and the loss of topsoil would be less than significant. Overall, impacts related to geology and soils would be the same compared to the project.

7.2.6 Greenhouse Gas Emissions

The No Project/Medical Office Building Alternative building area would be approximately 60,000 square feet bigger than the project and would generate approximately 75 percent more traffic. Thus, greenhouse gas (GHG) emissions from construction and operation would be incrementally greater compared to the project. As discussed in Section 5.6, Greenhouse Gas Emissions, the project would generate 2,986 MT CO_2E of GHGs annually, which would be less than the 3,000 MT CO_2E screening threshold. Given that the No Project/Medical Office Building Alternative would generate 75 percent more traffic, it is likely that GHG emissions associated with the No Project/Medical Office Building Alternative would exceed the 3,000 MT CO_2E screening threshold and result in potentially significant GHG impacts. The alternative would be required to include mitigation measures to reduce on-site GHG emissions including, but not limited to: transportation demand management program; electric vehicle parking; shuttles; increased building energy efficiency measures; installation of solar panels; and/or measures to reduce water consumption. Should these measures fail to reduce GHG emissions to below 3,000 MT CO_2E, the alternative may be able to purchase off-site carbon credits as a means to reduced GHG impacts to less than significant levels; otherwise, impacts could remain significant and unmitigated. Impacts would, therefore, be greater than the project.

7.2.7 Hazards

Similar to the project, the No Project/Medical Office Building Alternative would comply with all applicable regulations and local plans for handling of hazardous materials, which would ensure that this alternative would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Additionally, if required by state law, this alternative would prepare and comply with a Hazardous Materials Business Plan and Risk Management Program The No Project/Medical Office Building Alternative would be consistent with local regulations requiring the provision of emergency access and would be able to comply with local emergency response and emergency evacuation plans. Therefore, impacts related to hazards and hazardous materials would be the same compared to the project.

7.2.8 Hydrology and Water Quality

The No Project/Medical Office Building Alternative would construct a building area which would be approximately 60,000 square feet bigger than the project; however, new impervious surfaces would be similar due to the design of the structures. Consistent with City regulations and General Plan policies, the No Project/Medical Office Building Alternative would include measures to ensure that potentially polluted runoff is avoided to the greatest amount feasible during both project construction and operation. Additionally, the No Project/Medical Office Building Alternative would be required to comply with all applicable federal, state, and local water quality standards through adherence to the City's Municipal Code, Jurisdictional Runoff Management Programs, and City's Best

Management Practices Design Manual, as well as a project-specific Storm Water Quality Management Plan prepared to reduce impacts related to water quality to a level less than significant. Therefore, impacts related to hydrology and water quality under the Project/Medical Office Building Alternative would be the same compared to the project.

7.2.9 Noise

Construction of the No Project/Medical Office Building Alternative would require similar types and amounts of construction equipment as the project, thus, construction noise impacts would be the same compared to the project Once operational, noise sources associated with the No Project/Medical Office Building Alternative would be similar to the project, and would include vehicle traffic, heating, ventilation, and air conditioning (HVAC) equipment, emergency generators, and truck deliveries. The No Project/Medical Office Building Alternative proposes a greater amount of building area, therefore, the required HVAC capacity would be greater compared to the project. However, with proper screening, it is not anticipated that the No Project/Medical Office Building Alternative would result in noise levels that exceed the Chula Vista Municipal Code (CVMC) noise level limits. In regards to traffic, because the No Project/Medical Office Building Alternative would generate approximately 75 percent more traffic than the project, traffic noise in the vicinity of the project site would be incrementally greater than the project. While it is likely that noise levels associated with the No Project/Medical Office Building Alternative would remain less than significant, they would be incrementally greater compared to the project.

7.2.10 Public Services and Recreation

The demand for public services and recreation would be substantially the same under the No Project/Medical Office Building Alternative. As with the project, the No Project/Medical Office Building Alternative would not require any new or physically altered fire or emergency medical facilities, police facilities, or park and recreation facilities. Impacts would be the same compared to the project.

7.2.11 Traffic and Circulation

As shown in Table 7-2, the No Project/Medical Office Building Alternative would generate 7,809 ADT, approximately 75 percent more traffic than the project. Notwithstanding this increase, the Project/Medical Office Building Alternative would be screened out of the requirement to prepare a detailed Vehicle Miles Traveled (VMT) because consistent with the City's Traffic Study Guidelines it would result in a VMT per employee that would be below the regional VMT analysis.

This alternative generates significantly more trips; it would be expected to result in increased changes to local mobility compared to the project. Additional road improvements would be included as part of the alternative's project description to ensure compliance with acceptable traffic movement under the City's local mobility plans.

Therefore, transportation impacts (consistency with plans and VMT) would be the same compared to the project.

7.2.12 Utilities and Service Systems

Like the project, No Project/Medical Office Building Alternative would implement recycling programs to meet state and local waste reduction goals. Therefore, impacts associated with utilities and services under this alternative would be the same compared to the project.

7.2.13 Wildfire

The No Project/Medical Office Building Alternative would be located in the same location as the project and, therefore, would be subject to the same level of fire risk from surrounding areas. Likewise, the No Project/Medical Office Building Alternative would be subject to the same fire protection requirements as the project. Therefore, impacts associated with wildfire would be the same compared to the project.

7.2.14 Conclusions

All impacts associated with the No Project/Medical Office Building Alternative would be less than significant, except for GHG which would be potentially significant. The alternative would be required to include mitigation measures to ensure GHG levels are reduced to less than significant levels. Notwithstanding the finding that all impacts would be less than significant, compared to the project, the issue areas of landform/aesthetics, air quality, energy, air quality, energy, GHG, and noise would be incrementally greater compared to the project. Overall, this alternative is rejected as infeasible because it fails to meet any of the project objectives.

7.3 Reduced Intensity Alternative

The Reduced Intensity Alternative would construct a reduced size behavioral health hospital that would accommodate 50 percent less patient beds, for a total of 60 beds. A conceptual site plan of the Reduced Intensity Alternative is illustrated in Figure 7-3. All amenities and operational features would remain the same; however, doctor/nurse staffing and administration would be reduced proportionally. The aesthetic of the structure, exterior recreational areas, landscaping, and security measures would also remain the same as the project. This alternative would also include the commitment of funding for the construction of a traffic signal at the intersection of Harold Place/Fenton Street and provision of a fair share towards the construction of Adaptive Traffic Signal Control (ATSC) modules to all signalized intersections along Otay Lakes Road between Eastlake Parkway and Hunte Parkway (see Section 7.3.12).

Map Source: SWA Architects

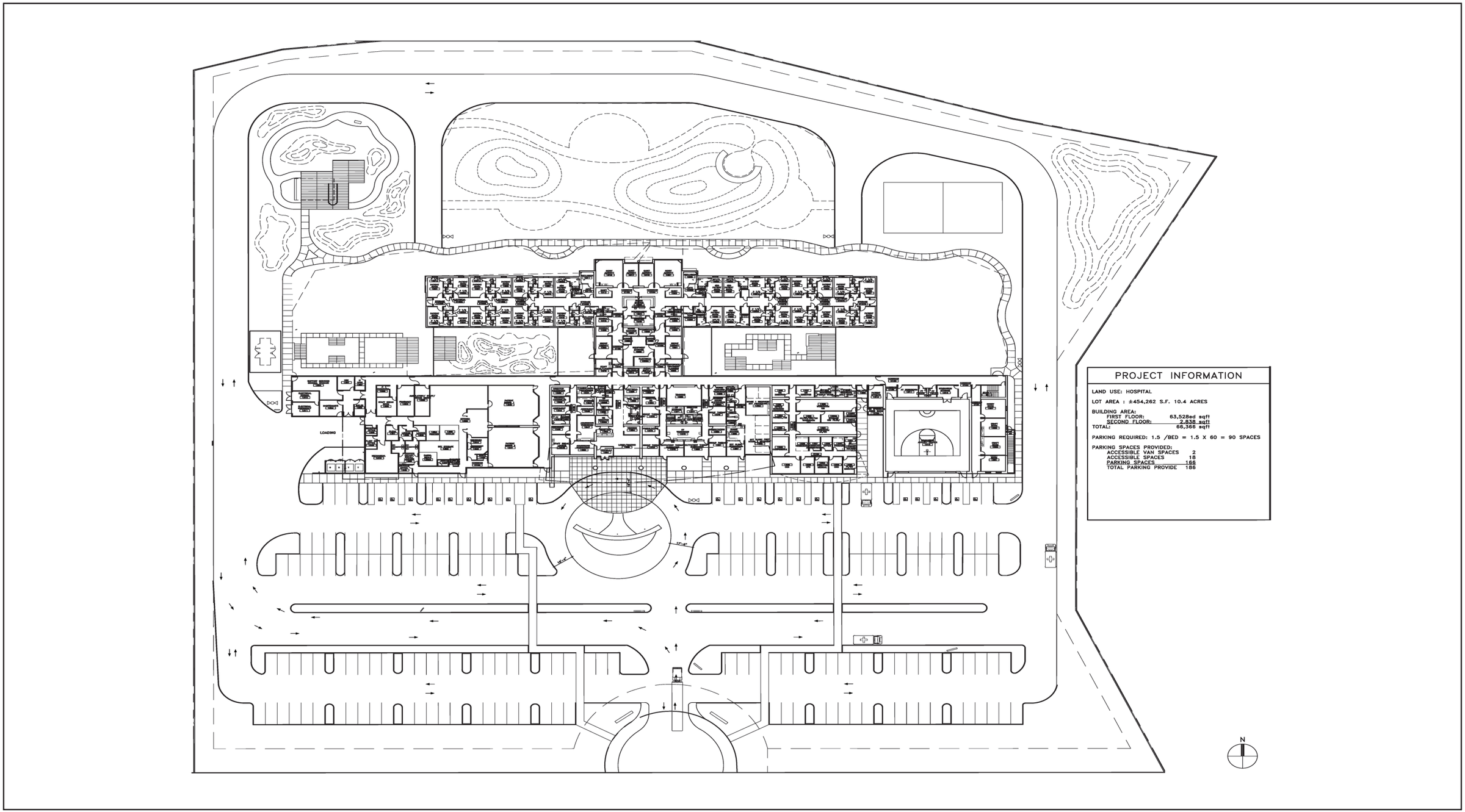

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FIGURE 7-3

Reduced Intensity Alternative

Conceptual Site Plan

As detailed throughout Chapter 5.0, the project would not result in any significant impacts. The comparative analysis of the Reduced Intensity Alternative is included herein to satisfy CEQA Guidelines Section 15127.6; however, this alternative would result in the same level of impacts and would not serve to reduce any significant impacts.

7.3.1 Land Use

The Reduced Intensity Alternative does not include any features that would have the potential to physically divide an established community and would not conflict with any policies of the General Plan, Eastlake II GDP, Business Center II Supplemental Sectional Planning Area Plan, Municipal Code/Planned Communities District Zones or Multiple Species Conservation Program Subarea Plan. Specifically, this alternative would conform to all building setbacks, landscaping, architectural design, and development regulations including the planting of perimeter shrubs and screening trees along the northern and eastern property edges. Like the project, the Reduced Development Alternative would also require processing of Conditional Use and Design Review Permits. Therefore, with the alternative conforming to all permit conditions and findings, land use impacts of the Reduced Intensity Alternative would be the same compared to the project.

7.3.2 Landform Alteration/Aesthetics

The Reduced Intensity Alternative would reduce the size of the proposed behavioral health hospital and serve 50 percent less patients; however, because the structure would be placed on a currently vacant lot, it would result in the same change to the visual character of the project site. Like the project, this alternative designed using the same aesthetic of muted colors and earth-toned accents and would be consistent with the existing pattern of development. Lighting, for security, construction, and operation would conform to regulations relating to lumens, orientation, and anti-reflective materials. Under this alternative, the behavioral health hospital would also be a single-story structure which would allow continued views through the project site. Overall, impacts to scenic vistas, scenic resources, visual character, and lighting under the Reduced Intensity Alternative would be the same compared to the project.

7.3.3 Air Quality

Like the project, the Reduced Intensity Alternative would be consistent with the General Plan land use designation and would not result in growth in population beyond that anticipated by the General Plan. The Reduced Intensity Alternative would construct a building that would be approximately 26,000 square feet less than the proposed building, and would generate approximately 1,200 ADT, which is half of the traffic that would be generated by the project. Emissions of air quality pollutants, including ozone precursors from construction and operational activities would not exceed the National Ambient Air Quality Standards or California Ambient Air Quality Standards or contribute to existing violations. This alternative would result in short-term air quality impacts similar to, but less

than the project, since grading and construction activities would be slightly reduced due to the smaller footprint. Likewise, this alternative would result in a reduced level of traffic-related emissions due to the decrease in trips associated with the reduced size of the facility. Overall, like the project, the Reduced Intensity Alternative would have less than significant construction and operational emissions levels; however, emissions would be incrementally less than the project.

7.3.4 Energy

Like the project, the Reduced Intensity Alternative would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Due to the reduced size of the facility, the Reduced Intensity Alternative would result in similar short-term and long-term energy use, but incrementally less than, the project. Therefore, like the project, the Reduced Intensity Alternative would have less than significant impacts related to energy use; however, energy use would be incrementally less than the project.

7.3.5 Geology and Soils

Although the Reduced Intensity Alternative would reduce the development size and intensity compared to the project, potential impacts related to geology and soils would be the same. Compliance with City regulations, the California Building Code, and adherence to the grading and site preparation recommendations presented in the geotechnical investigation would ensure that the Reduced Intensity Alternative would not expose people or structures to seismic hazards or unstable soils. Similarly, compliance with the General Construction Permit and Best Management Practices outlined in the required Storm Water Quality Management Plan would ensure that impacts related to soil erosion and the loss of topsoil would be less than significant. Overall, impacts related to geology and soils would be the same compared to the project.

7.3.6 Greenhouse Gas Emissions

Like the project, the Reduced Intensity Alternative would not conflict with or obstruct a state or local GHG reduction plan. The Reduced Intensity Alternative would construct a building that would be approximately 26,000 square feet less than the proposed building, and would generate 1,200 ADT which is half of the traffic that would be generated by the project. Due to the reduced size of the facility, the Reduced Intensity Alternative would result in GHG emissions that would be incrementally less than the project. Therefore, like the project, the Reduced Intensity Alternative would have less than significant impacts associated with GHG emissions; however, emissions would be incrementally less than the project.

7.3.7 Hazards

Similar to the project, the Reduced Intensity Alternative would comply with all applicable regulations and local plans for handling of hazardous materials, which would ensure that this alternative would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Additionally, this alternative would be required to prepare and comply with a Hazardous Materials Business Plan and Risk Management Program consistent with local and state law. The project site is not listed as a hazardous materials site compiled pursuant to Government Code Section 65962.5, nor located within two miles of a public airport (or within an Airport Land Use Compatibility Plan) or within the vicinity of a private airstrip. The Reduced Intensity Alternative would provide similar emergency access and would be able to comply with local emergency response and emergency evacuation plans. Therefore, impacts related to hazards and hazardous materials would be the same compared to the project.

7.3.8 Hydrology and Water Quality

Although the Reduced Intensity Alternative would construct a smaller structure it would result in new impervious surfaces throughout the project site increasing storm water runoff entering downstream water bodies. The Reduced Intensity Alternative would design measures to ensure that potentially polluted runoff is avoided to the greatest amount feasible during both project construction and operation. The Reduced Intensity Alternative would be required to comply with all applicable federal, state, and local water quality standards through adherence to the City's Municipal Code, Jurisdictional Runoff Management Programs, and the City's Best Management Practices Design Manual, as well as a project-specific Storm Water Quality Management Plan prepared to reduce impacts related to water quality to a level less than significant. Overall, impacts related to hydrology and water quality under the Reduced Development Alternative would be less than significant, the same compared to the project.

7.3.9 Noise

Construction of the Reduced Intensity Alternative would require similar types and amounts of construction equipment as the project; thus, construction noise impacts would be the same as the project and would be less than significant. Once operational, noise impacts under the Reduced Intensity Alternative would be reduced compared to those of the project. The noise sources associated with this alternative would be the same as the project; however, due to the decrease in building size and traffic generation, noise levels associated with the Reduced Intensity Alternative would be incrementally less compared to the project. As with the project, the Reduced Intensity Alternative would not result in noise levels that exceed CVMC noise level limits or result in a significant increase in ambient noise levels. Overall, noise impacts under the Reduced Intensity Alternative would be the same compared to the project.

7.3.10 Public Services and Recreation

Although the development intensity would decrease under this alternative, the demand for public services and recreation would be substantially the same. As with the project, the Reduced Intensity Alternative would not require any new or physically altered fire or emergency medical facilities, police facilities, or park and recreation facilities. Impacts would be the same compared to the project.

7.3.11 Traffic and Circulation

Like the project, the Reduced Intensity Alternative would be screened out of the requirement to prepare a detailed VMT analysis because even with the reduced facility size, it would result in a VMT per employee that would be below the regional VMT analysis.

With respect, this alternative's effect on the City's local mobility plans, while the Reduced Intensity Alternative would result in fewer trips on local roads compared to the project, it is likely that this alternative coupled with buildout under existing plans would require the alternative to include the commitment of funds for the signalization of the intersection at Harold Place/Fenton Street as a project feature, as well as the provision of a fair share towards the construction of ATSC modules to all signalized intersections along Otay Lakes Road between Eastlake Parkway and Hunte Parkway. Transportation impacts (consistency with plans and VMT) would be the same compared to the project.

7.3.12 Utilities and Service Systems

Implementation of the Reduced Intensity Alternative would reduce demands on wastewater treatment and water supply compared to the project due to reduced development intensity. As with the project, this alternative would implement recycling programs to meet state and local waste reduction goals. Overall, like the project, the Reduced Intensity Alternative would have less than significant impacts associated with utilities and services; however, demands would be incrementally less than the project.

7.3.13 Wildfire

The Reduced Intensity Alternative would be located in the same location as the project and, therefore, would be subject to the same level of fire risk from surrounding areas. Likewise, the Reduced Intensity Alternative would be subject to the same fire protection requirements as the project. Therefore, impacts associated with wildfire under the Reduced Intensity Alternative would be the same compared to the project.

7.3.14 Conclusions

Like the project, impacts associated with the Reduced Intensity Alternative would be less than significant; however, due to the reduced size of the facility impacts associated with the issue areas of air quality, energy, GHG, and utilities and services systems would be

incrementally less compared to the project. All other impacts under the Reduced Intensity Alternative would be the same compared to the project. However, this alternative is rejected as infeasible because it would not achieve the objectives of the project as it would not serve the regional needs of the community of providing the needed inpatient beds.

7.4 Environmentally Superior Alternative

The Reduced Intensity Alternative would result in reduced environmental impacts compared to the project and would be considered the environmentally superior alternative. This alternative, however, fails to meet the primary objectives of the project as it would not provide a behavioral health hospital that would satisfy the inpatient bed requirements of the community.

8.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15128, this section describes the environmental issue areas that were determined during preliminary project review not to be significant, and are therefore not discussed in detail in the environmental impact report.

8.1 Agricultural and Forestry Resources

8.1.1 Agricultural Resources

The California Department of Conservation Farmland Mapping and Monitoring Program identifies that the project site is Urban and Built-Up Land. The project site does not include lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance pursuant to the Farmland Mapping and Monitoring Program maps prepared by the California Resources Agency (California Department of Conservation 2016).

As the project site does not contain any agricultural resources, no agricultural resources including Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance would be converted to a non-agricultural use.

The project site is not zoned for agricultural use. There are no lands under Williamson Act Contract within the City of Chula Vista (City; City of Chula Vista 2005a). As such, the project would not conflict with existing zoning for agricultural use, or a Williamson Act Contract.

8.1.2 Forestry Resources

Forest land is defined as “land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits” (California Public Resources Code, Section 12220(g)). Timberland is defined as “land, other than land owned by the federal government and land designated by the board as experimental forestland, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees” (California Public Resources Code, Section 4526). A Timberland Production Zone is defined as “an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision” (California Public Resources Code, Section 51104(g)).

The project site is not zoned for timberland production and trees make up less than 10 percent of the land cover. Therefore, the site does not support any forestry resources

or forest lands as defined in Public Resources Code Section 12220(g). Project implementation would not result in the loss or conversion of forest land to a non-forest use.

8.2 Biological Resources

The project site is mapped Developed/Urban Land per the Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan and does not include any habitat conservation areas. As the project site has been previously graded in an urbanized environment, it does not include any mature and/or protected trees, riparian habitat, wetland habitat, migratory wildlife corridors, wildlife nursery sites, or any other sensitive natural community. As the project site does not include any habitats or wildlife, the project would result in no impacts to biological resources. The project's potential to conflict with provisions of local policies, ordinances, or conservation plans intended to protect biological resources would be less than significant.

8.3 Cultural Resources and Tribal Cultural Resources

The term "historic resources" applies to any such resource that is at least 50 years old and is either listed, or determined to be eligible for listing, in the California Register of Historical Resources. The project site is vacant within the approved Business Center II Supplemental Specific Planning Area (SPA) and the immediately adjacent structures were all constructed between 2000 and 2006. No historical structures occur on or immediately adjacent to the project site.

Project site excavations are anticipated for subgrade preparation associated with the shallow foundations required for the proposed single-story slab on grade construction for the project. Recommendations from the Geotechnical Evaluation indicate that the project would require remedial grading of up to eight feet of depth below building foundations to remove and replace the existing fill (see Appendix D). As the project site has been previously graded and fill soils have already been placed on the site, the project would not impact human remains. Additionally, as the project site has already been graded fill soils have already been placed on the project site. As such, the project would not impact cultural or tribal cultural resources.

8.4 Mineral Resources

Mineral resources in the City are described in the Environmental Element of the City's General Plan. Mineral Resource Zones (MRZs) are delineated in Figure 9-4: MRZ-2 Area Map of the City's General Plan (City of Chula Vista 2005a). Mineral resources located within the City include sand, gravel, crushed rock resources, known collectively as construction aggregate. The project site is not located within an MRZ nor is it located on or within any areas containing mineral resources as indicated in the City's General Plan. Additionally, the project site is not currently being used for mineral resource

extraction. The project site is located within an urbanized area. Given these factors, the project would not result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the state.

8.5 Population and Housing

The project site is located in an urbanized area and proposes development consistent with the density envisioned by the City's General Plan or the Business Center II Supplemental SPA Plan. As such, the project is not anticipated to induce substantial unplanned population growth. The project does not include removal or addition of housing; as such, there would be no displacement of housing or people necessitating the construction of new housing.

9.0 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS/IRREVERSIBLE CHANGES

California Environmental Quality Act (CEQA) Guidelines Sections 15126.2(b) and 15126.2(c) require that the significant unavoidable impacts of the project, as well as any significant irreversible environmental changes that would result from project implementation, be addressed in the Environmental Impact Report (EIR).

9.1 Significant Environmental Effects Which Cannot Be Avoided if the Project Is Implemented

In accordance with CEQA Guidelines Section 15126.2(b), any significant unavoidable impacts of a project, including those impacts that can be mitigated but not reduced to below a level of significance despite the applicant's willingness to implement all feasible mitigation measures, must be identified in the EIR. As discussed throughout Chapter 5.0 and in Chapter 6.0 of this EIR, the project would not result in a significant direct or cumulative impact that cannot be avoided.

9.2 Irreversible Environmental Changes Which Would Result if the Project Is Implemented

In accordance with CEQA Guidelines Section 15126.2(c):

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvements which provide access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Non-renewable resources generally include agricultural land; biological, archaeological and paleontological resources; mineral deposits; water bodies; and some energy sources. As evaluated in Chapters 5.0 and 6.0 of this EIR, implementation of the project would not result in significant irreversible impacts to any of the aforementioned resources areas.

Implementation of the project would require the irreversible consumption of natural resources and energy. Natural resource consumption would include lumber and other forest products, sand and gravel, asphalt, steel, copper, other metals, and water. Building materials, while perhaps recyclable in part at some long-term future date, would for practical purposes be considered permanently consumed. Energy derived from non-

renewable sources, such as fossil and nuclear fuels, would be consumed during construction and operational lighting, heating, cooling, and transportation uses.

To minimize the use of energy, water, and other natural resources, the project would incorporate sustainable building practices into the project design. The project would adhere to local regulations and General Plan policies requiring the inclusion of green building design measures. Additionally, the project has been designed to utilize recycling, and reduce water and energy use.

10.0 GROWTH INDUCEMENT

The California Environmental Quality Act (CEQA) Guidelines Section 15126.2(d) requires that an Environmental Impact Report (EIR):

> Discuss ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included are projects which would remove obstacles to population growth (for example, a major expansion of a waste water treatment plant might allow for more construction in service areas). Increases in the population might tax existing community services facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

10.1 Population and Growth Projections

The City of Chula Vista (City) General Plan Update was specifically intended to provide for the orderly growth of the City, define the limits to that growth, and act as a mechanism to accommodate and control future growth. Development permitted by land use policy would provide needed housing for all income levels, create compact and pedestrian-friendly urban development, and protect natural resources. Implementation of the General Plan would result in a more inclusive community, maintain a balance between housing and employment, and foster a stable economic base and diverse employment opportunities (City of Chula Vista 2005a).

The project would construct a behavioral health hospital within the boundaries of the Eastlake General Development Plan (GDP). The proposed use is allowed with approval of a Conditional Use Permit and is consistent with the policies of the GDP and has been anticipated by the General Plan Update. Therefore, the project would not result in changes to population growth projections and would not have a growth inducing effect on the City.

10.2 Public Services and Infrastructure

The project is located within the existing Eastlake Business Center surrounding by commercial and residential uses. It is an infill project that would connect to existing infrastructure and utilities lines without the need for expansion or extensions. Although the project would result in an incremental increase in demand for fire protection and emergency medical services, police protection, water demand, wastewater treatment, and solid waste services, these anticipated increases would not significantly burden existing

community services facilities or require construction of new facilities that would cause significant environmental effects (see Sections 5.10 and 5.12).

The project would connect to the existing underground water, storm water, and sewer pipelines that serve the surrounding area. The project would also construct an on-site bioretention basin that would adequately reduce volume and convey runoff from the project site to the existing infrastructure.

Because the project is located in an urbanized area surrounded by existing commercial, residential, and transportation facilities, project implementation would not remove obstacles to population growth. Access to the site would be obtained from existing major roadways and the primary public infrastructure (e.g., water and sewer pipelines) are already in place and have sufficient capacity to support buildout of the project. Therefore, the project would not require extension of roads or other infrastructure that could induce population growth either directly or indirectly.

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12.0 ENVIRONMENTAL IMPACT REPORT PREPARATION

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