CITY OF
CHULA VISTA

Sharp Ocean View Tower Project

Final Environmental Impact Report

EIR 15-0002

SCH No. 2016021010

September 2016

276 Fourth Ave. • Chula Vista • California • 91910

ERRATA

SHARP OCEAN VIEW TOWER

A FINAL ENVIRONMENTAL IMPACT REPORT

Subsequent to the public review period, the text of the Draft EIR has been modified which is indicated in underline and strikeout format as follows:

~~Old Text~~ Revised Text

The Final EIR is organized in the same manner as the Draft EIR, as each section of the document has retained the same section number. Immediately following this page are the comments and responses to the Draft EIR. Following the comments and responses is the revised EIR. Where changes in the text have been made in response to comments on the EIR, such changes are noted in the responses.

Specifically, these changes to the SEIR are limited to the following sections:

Executive Summary:

A misspelling was corrected

Aesthetics:

References to “VA hospital” in two locations have been corrected to “Veteran’s Home of California.”

Figure 5.2-3 caption was corrected.

MMRP:

Table 11-1 has been corrected to properly match the Traffic section.

FINAL ENVIRONMENTAL IMPACT REPORT

FOR THE

SHARP OCEAN VIEW TOWER PROJECT

Letters of Comment and Responses

Comment letters received during the Draft EIR public review period contained accepted revisions that resulted in changes to the Final EIR text. Revisions to the Final EIR are intended to correct minor discrepancies and provide additional clarification. The revisions do not constitute significant changes to the project or environmental setting, no new significant environmental effects have been identified for the project and the severity of environmental impacts would not be increased.

Federal Agencies

Letter A State Clearinghouse

State Agencies

None

Local Agencies

None

Local Organizations

None

Individual

Letter B Cesar Jimenez

Letter A

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

Edmund G Brown Jr
Governor

Ken Alex
Director

August 2, 2016

Jeff Steichen
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910

Subject: Sharp Ocean View Tower
SCH#: 2016021010

Dear Jeff Steichen:

A-1 The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on August 1, 2016, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

RECEIVED
AUG 04 2016
PLANNING

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

A-1 Comment noted.

Document Details Report
State Clearinghouse Data Base

SCH#	2016021010
Project Title	Sharp Ocean View Tower
Lead Agency	Chula Vista, City of
Type	EIR Draft EIR
Description	The proposed project would include construction of a new hospital tower within the existing Sharp Chula Vista Hospital campus. The new critical care tower (Ocean View Tower) would be a max of 120' in height (when including the elevator enclosure) and would include 138 beds, 6 operating rooms with pre- and post-op support, sterile processing, dietary services, material management, dock, and other related support services. The 197,696-sf Ocean View Tower would be seven floors, six above grade and one mostly sub-grade (subterranean on three sides; above ground on one side) adjacent to the existing East Tower and the newly constructed loop road.

Lead Agency Contact

Name	Jeff Steichen
Agency	City of Chula Vista
Phone	(619) 585-5778 *Fax*
email	
Address	276 Fourth Avenue
City	Chula Vista *State* CA *Zip* 91910

Project Location

County	San Diego
City	Chula Vista
Region	
Lat / Long	32° 37' 10" N / 117° 01' 21" W
Cross Streets	Medical Center Court and Medical Center Dr
Parcel No.	641-010-28
Township	*Range* *Section* *Base*

Proximity to:

Highways	I-805
Airports	
Railways	
Waterways	
Schools	Rogers, Parkview
Land Use	LU: Public/Quasi Public Z: Administrative and Professional office (with precise plan)

Project Issues	Aesthetic/Visual; Air Quality; Flood Plain/Flooding; Noise; Geologic/Seismic; Sewer Capacity; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Landuse; Cumulative Effects
Reviewing Agencies	Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 11; State Water Resources Control Board, Division of Drinking Water, District 14; Regional Water Quality Control Board, Region 9; Native American Heritage Commission; Statewide Health Planning

Date Received 06/17/2016 *Start of Review* 06/17/2016 *End of Review* 08/01/2016

Letter B

August 3, 2016

Jeff Steichen
Associate planner
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910

SUBJECT: COMMENTS FOR THE SHARP OCEAN VIEW TOWER PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT EIR 15-0002

B-1 The above report states on page 5.2-3 that "the views from Caminito Cumbres would not change substantially as the view for both existing and proposed condition is primarily that of multi-story hospital structures". That is not true because the negative visual impacts will increase as the new building is taller and closer to the Bella Sol subdivision. Caminito Linares will also have negative visual impacts. Therefore I oppose to the propose increase in allowable height

Thank you,

Cesar Jimenez
811 Caminito Alicia
Chula Vista, CA 91911
619-942-0633

RECEIVED
AUG 03 2016
DEVELOPMENT SERVICES DEPARTMENT

B-1 The commenter's concerns about the changes in views and the height of the proposed tower are acknowledged. The CEQA threshold of significance pertaining to aesthetics and visual character asks whether the project would "Substantially degrade the existing visual character or quality of the site and its surroundings." The EIR discloses that there would be changes to the visual setting; as stated on pages 5.2-3 and 5.2-13, the Ocean View Tower would "appear to be closer and larger as compared to the existing East Tower" from the perspective someone on one of the public streets within the Bella Sol subdivision or from Caminito Cumbres." The EIR goes on to conclude that the alteration in views would not be substantial given that both existing and proposed views consist of multi-story hospital buildings and the proposed OVT being visually similar and architecturally compatible. The commenter's concerns are included in the Final EIR for the decision-makers to consider during the public hearing for the project.

While not a CEQA issue because the EIR found the alteration in views to be less than significant -- in response to comments made at the March 10, 2016 community forum, the hospital has planted approximately 50 new trees on the hillside which currently provide screening, and in three years when the construction is complete, will screen views of the first couple of levels of the proposed tower.

CITY OF
CHULA VISTA

Sharp Ocean View Tower Project

Final Environmental Impact Report

EIR 15-0002

SCH No. 2016021010

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FIGURES

FIGURES (cont.)

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TABLES (cont.)

APPENDICES (bound separately)

ACRONYMS

$\mu g/m^3$	Micrograms per cubic meter of air
AB	Assembly Bill
ADT	Average daily traffic
AMSL	Above mean sea level
BACM	Best Available Control Measures
BAU	Business-as-usual
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
CalEEMod	California Emissions Estimator Model
Cal EPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
Cal Fire	California Department of Forestry and Fire
Cal OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCWG	Climate Change Working Group
CEC	California Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQA	California Environmental Quality Act
cfs	Cubic feet per second
CFR	Code of Federal Regulations
CH_4	Methane
City	City of Chula Vista
CNEL	Community noise equivalent level
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CVFD	Chula Vista Fire Department
CVMC	Chula Vista Municipal Plan
CVPD	Chula Vista Police Department
CWA	Clean Water Act
dB	Decibels
dB(A)	A-weighted Decibels
DEH	Department of Environmental Health

DOT	Department of Transportation
DPM	Diesel particulate matter
DSWM	Development Storm Water Manual
DTSC	Department of Toxic Substances Control
ED	Emergency Department
EIR	Environmental Impact Report
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
FDD	Facilities Development Division
FEMA	Federal Emergency Management Act
FIRM	Flood Insurance Rate Map
FTA	Federal Transit Administration
GBS	Green Building Standards
GDP	General Development Plan
GHG	Greenhouse Gas
GMO	Growth Management Ordinance
GMOC	Growth Management Oversight Committee
gpd	Gallons per day
gpm	Gallons per minute
HFC	Hydrofluorocarbon
HMBP	Hazardous Materials Business Plan
HMD	Hazardous Materials Division
HRA	Health Risk Assessment
HRO	High Reliability Organization
Hz	Hertz
I	Interstate
In/sec	Inch per second
IWMA	California Integrated Waste Management Act
LCFS	Low Carbon Fuel Standard
L_{eq}	Equivalent Continuous Noise Level
LEV	low-emissions vehicle
LID	Low Impact Development
LLG	Linscott Law & Greenspan
LOS	Level of Service
LRA	Local responsibility area
LUST	Leaking underground storage tanks
LUT	Land Use and Transportation Element
METRO	Metropolitan Wastewater System
mgd	Million Gallons per Day
MHMP	Multi-Jurisdictional Hazard Mitigation Plan
MJHMP	Multi-Jurisdictional Hazards Mitigation Plan
MAP	Major Planning Application
MMR	Mitigation Monitoring Report

MMRP	Mitigation Monitoring and Reporting Program
mph	Miles per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zones
MSCP	Multiple Species Conservation Program
$MTCO_2E$	Metric tons of CO_2 equivalent
$MMTCO_2E$	Million metric tons of CO_2 equivalent
MWD	Metropolitan Water District of Southern California
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Communities Conservation Planning Act
NFIP	National Flood Insurance Program
NOP	Notice of Preparation
NOx	Nitrogen Oxides
N_2O	Nitrous Oxide
NO_2	Nitrogen Dioxide
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Act
OSHPD	Office of Statewide Health Planning and Development
OVT	Ocean View Tower
OWD	Otay Water District
Pb	Lead
PCB	Polychlorinated biphenyls
PeMS	Performance Measurement System
PFC	Perfluorocarbon
$PM_{2.5}$	2.5-micron particulate matter
PM_{10}	10-micron particulate matter
ppm	Parts per million
PPV	Peak particle velocity
Psi	Pounds per square inch
PQ	Public/Quasi Public
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
RCP	Regional Comprehensive Plan
RMP	Resource Management Plan
ROG	Reactive Organic Gases
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Boards
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAB	South Coast Air Basin

SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SF_6	Sulfur hexafluoride
SFHA	Special Flood Hazard Areas
Sharp	Sharp Healthcare
SIP	State Implementation Plan
SJVAQCD	San Joaquin Valley Air Pollution Control District
SO_2	Sulfur Dioxide
SPA	Sectional Planning Area
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SZA	Select Zone Assignment
T-BACT	Toxic Best Available Control Technology
TAC	Toxic Air Contaminant
TCM	Transportation Control Measure
TDIF	Transportation Development Impact Fee
TDM	Transportation Demand Management
TIA	Traffic Impact Analysis
TMDL	Total maximum daily loads
TMP	Traffic Monitoring Program
UDC	Unified Disaster Council
USC	United States Code
U.S. EPA	United States Environmental Protection Agency
UST	Underground storage tanks
UWMP	Urban Water Management Plan
v/c	Volume per capacity
VHFHSZ	Very High Fire Hazard Severity Zones
VMT	Vehicle Miles Traveled
WDR	Report of Waste Discharge
WRMP	Water Resource Master Plan

1.0 EXECUTIVE SUMMARY

1.1 Project Synopsis

This Environmental Impact Report (EIR) is for the proposed Sharp Ocean View Tower project and is for informational use by the City of Chula Vista, other public agencies, and members of the public. This summary provides a brief synopsis of: (1) the proposed project, (2) results of the environmental analysis contained within this environmental document, (3) alternatives to the proposed 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 chapters within the document. Therefore, the reader should review the entire document to fully understand the proposed 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 proposed project is located within the City of Chula Vista, in southwestern San Diego County approximately one mile east of Interstate 805 (I-805) and one-quarter of a mile south of Telegraph Canyon Road. The project site is located in the northeastern portion of assessor's parcel number 641-010-28. The project footprint is 2.47 acres of the 16.49-acre parcel. The property is in the East Planning Area of the City's General Plan (Public/Quasi Public Lands category) and is zoned Administrative and Professional Office (C-O) and includes a P modifying district, which indicates that the project is subject to Precise Plan. The zoning designation is C-O-P.

There are multiple existing buildings (Sharp Chula Vista Medical Center and Birch Patrick Skilled Nursing Facility), as well as two medical office buildings and one new parking structure on the property that will remain. The proposed Ocean View Tower footprint is located on a relatively flat (ranging from 445 to 455 feet above mean sea level area surrounded by existing development and currently containing a loading dock and trash enclosures. North-facing and east-facing manufactured cut and fill slopes are located north/northeast of the proposed facility. In general, the overall property is located on a topographic hill and descends southward and westward toward existing medical office facilities and the Birch Patrick Nursing Facility.

1.3 Project Description

The proposed project would include construction of a new hospital tower (Ocean View Tower) within the existing Sharp Chula Vista hospital campus. The new tower would be

constructed immediately adjacent to the existing Sharp Chula Vista Hospital and would be seven stories in height to include 138 beds, 6 operating rooms with pre- and post-operational support, sterile processing, dietary services, material management, dock, morgue, and pharmacy; as well as a rooftop Ocean View Café. The proposed tower would be adjacent to the existing hospital; with the first two floors interfacing directly with the east tower. The proposed 197,696-square-foot Ocean View Tower would be seven floors, six above grade and one mostly sub-grade (subterranean on three sides; above ground on one side) Total height would 110 feet 9 inches for the seven-story tower itself (to the top of the parapet); reaching a maximum height of 120 feet when including the elevator enclosure.

1.3.1 Project Objectives

Section 15124(b) of the CEQA Guidelines requires an EIR to include a statement of objectives for the proposed 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 10.0).

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-15-0025) to allow an "unclassified use" (hospital) to be constructed within the Administrative and Professional Office (CO) zone.

- Approval of a Major Planning Application (MPA-15-0021) as specified in the Precise Plan, P district to allow for an increase in the allowable building height of the Administrative and Professional Office (CO) zone from 45 to 120 feet.

- Approval of a Design Review (DR15-030) to allow for the construction of the proposed hospital tower.

- Certification of a Final EIR, adoption of the Mitigation Monitoring and Reporting Program pursuant to CEQA, and approval of the CEQA Findings and Statement of Overriding Considerations (EIR 15-002).

1.4 Areas of Controversy

The Notice of Preparation (NOP) was distributed on January 27, 2016 for a 30-day public review and comment period and a public scoping meeting was held February 11, 2016. Public comments were received on the NOP and comments from

the scoping meeting reflect controversy related to several environmental issues. The NOP, comment letters, and comment forms are included in this EIR as Appendix A.

Concerns associated with the proposed project are reflected in the issues of aesthetics (shadow), 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 proposed project and how to mitigate significant effects created by its implementation. The City will also decide if the significant impacts associated with the environmental issues of transportation/circulation and paleontological resources have been fully mitigated to below a level of significance. Lastly, the City should determine whether any alternative might meet the key objectives of the proposed project while reducing its 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.

The EIR addresses two alternatives: the No Project-No Build Alternative and the Reduced Height Alternative. Alternatives to the proposed project are evaluated in full in Chapter 10.0 of this document.

1.6.1 No Project–No Build Alternative

The No Project–No Build Alternative reflects the existing conditions of the project area. CEQA Guidelines Section 15126.6(e)(3)(B) states that the No Project–No Build Alternative "means 'no build' wherein the existing environmental setting is maintained." The No Project–No Build Alternative, presents the scenario where the project area would remain in the existing condition and no additional hospital facilities or associated parking lots would be constructed.

1.6.2 Reduced Height Alternative

The Reduced Height Alternative would result in construction of a 3-story tower (i.e., 45 feet) within the same footprint as the proposed project to include: 46 patient beds

(including 10 intensive care unit beds), 6 operating rooms with pre- and post-operational support; sterile processing; dietary services; material management; dock; morgue; and pharmacy.

The layout would be similar to the proposed project; however, with a reduction in overall patient room and a corresponding decrease in square footage designated for the additional hospital support components. The first level, mostly subterranean, would include sterile processing, material management, other support services such as the morgue, and dietary services. The ground level would include the new lobby, reception, gift shop, intensive care unit rooms, the six new operating rooms, pre-operational rooms, and post-anesthesia care unit. The third floor would include 36 patient beds as well as family waiting areas, staff lounge, nurse station, and other supporting uses.

The existing east tower would require future seismic upgrades by 2030 in order to comply with SB 1953. Under this alternative, these upgrades would not be feasible because the number of beds lost during the upgrade process (44 beds) would not offset the number gained under this alternative (36 beds). Therefore, in the absence of a seismic retrofit prior to 2030, the existing east tower would be decommissioned for acute care facilities, resulting in the loss of all existing 139 patient beds.

1.6.3 Environmentally Superior Alternative

The No Project–No Build Alternative would result in reduced environmental impacts compared to the proposed project. However, Section 15126.6(e)(2) of the CEQA Guidelines requires identification of an alternative other than the No Project Alternative as the environmentally superior alternative. As such, the Reduced Height Alternative would be considered the environmentally superior alternative due to its potential for reducing impacts to land use, aesthetics, air quality, greenhouse gases, hazards/risk of upset, noise, and public utilities while still meeting some of the objectives of the proposed project.

1.7 Summary Table

Table 1-1 identifies the subject areas analyzed in the EIR, providing a summary of potential impacts, mitigation measures, and significance of impacts.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
LAND USE			
Conflict with any applicable habitat conservation plan or natural community conservation plan.	The proposed Ocean View Tower is not subject to the MSCP because the property is not located within or adjacent to any Preserve Areas. The project footprint 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, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, including the MSCP and would have a less than significant impact on the MSCP.	No mitigation is required.	Impacts would be less than significant.
AESTHETICS			
Have a substantial adverse effect on a scenic vista?	The project site is located on a mesa with an existing medical center as described above. No scenic vistas occur within the immediate project area. While there are prominent landforms to the east, the project would not alter views from these areas, as the project area has been developed and does not contain scenic vistas. Further, Ocean View Tower would not block any public vantage points of the Pacific Ocean. Therefore, the project would have a less than significant impact to scenic vistas.	No mitigation is required.	Impacts would be less than significant.
Substantially damage scenic resources, including, but not limited to, tress, rock outcroppings, and historic buildings within a state scenic highway?	As indicated under the existing conditions, no state-designated scenic highways are present in the proposed project vicinity. However, Telegraph Canyon Road, located approximately a half mile to the north of the project site, is a City-designated Scenic Roadway and Gateway. This roadway is located at a lower elevation than the project site. Immediately to the north, the views from Telegraph Canyon Road to the project area are screened by topography and existing development. Motorists and pedestrians heading westbound on Telegraph Canyon Road have intermittent views of the project area but those views currently take in the existing medical center and would not be substantially altered by the addition of the Ocean View Tower. Therefore, views from the scenic roadway would be generally the same as current views with the existing buildings and development on the mesa.	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Substantially degrade the existing visual character or quality of the site and its surroundings?	The Ocean View Tower would be 120 feet in height (including the elevator enclosure), within seven stories. While this is taller than the existing structures at 95 feet and five floors for the hospital and 70 feet and five levels for the new parking structure (102 feet to the top of the elevator tower), the exterior would be consistent with the existing buildings on-site. The proposed Ocean View Tower, while slightly taller than the two existing towers, would simply be replacing views of existing hospital buildings with views of another hospital building from most vantage points. Further, the Ocean View Tower would be visually similar and architecturally compatible with the existing buildings. Therefore, the proposed project would have a less than significant impact on the character of the site and the surrounding area.	No mitigation is required.	Impacts would be less than significant.
Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	The proposed Ocean View Tower has been designed with a combination of solid surfaces and windows to allow for natural light to enter both open public areas and patient rooms. Exterior surfaces and windows while they have the potential to result in glare to the east during morning hours, would be limited due to the elevation differential (approximately 60 feet) with the surrounding residential development, as well as use of building and windows materials that are absorptive of light or made of anti-reflective materials. This included glazing techniques on both solid walls and windows, and use of concrete which is non-reflective. Exterior lighting would be similar to existing lighting of other on-site buildings and would be consistent with the lighting requirements of the City's Zoning Ordinance for placement and design. The existing loop road would not be changed by the proposed project, and therefore, the vehicular traffic would be routed in a same manner not altering the effects of vehicle headlights from the proposed project.	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
TRANSPORTATION AND CIRCULATION			
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.	Existing + Project INTERSECTIONS The addition of project traffic to any intersection operating at unacceptable LOS E or F would be considered a significant cumulative impact. Thus, the project would have a significant cumulative impact to the following intersections under the existing + project conditions: • E. Palomar Street/Heritage Road (LOS F in AM) • Olympic Parkway/I-805 SB Ramps (LOS E in AM/PM) • Olympic Parkway/I-805 NB Ramps (LOS F in AM) STREET SEGMENTS As the project would add more than 800 ADT and project traffic would be more than 5 percent of the total traffic, the project would have a significant direct impact to the following segment under the existing + project conditions: • Medical Center Court: East of Medical Center Drive As the project would add less than 800 ADT and project traffic would be less than 5 percent of the total traffic on these segments, the project impact would have a less than significant direct impact to the remaining Telegraph Canyon Road and Olympic Parkway segments operating at LOS D or worse. However, the project impacts at these segments (listed below) would be cumulatively significant under the existing + project conditions, as these segments would operate at LOS D for more than 2 hours or LOS E/F for 1 hour (see Table 5.3-6): • Telegraph Canyon Road: Halecrest Drive to Oleander Avenue • Telegraph Canyon Road: Oleander Avenue to Medical Center Drive • Olympic Parkway: I-805 Ramps to Oleander Avenue • Olympic Parkway: Oleander Avenue to Brandywine Avenue • Olympic Parkway: Brandywine Avenue to Heritage Road Near-term (Existing + Cumulative Projects) + Project INTERSECTIONS Under the near-term conditions, seven intersections (Intersections 2, and 12 to 17) would operate at unacceptable LOS E or F (Table 5.3-9). With the addition of project traffic to the near-term conditions, these	To mitigate the construction-related direct intersection impact to Medical Center Court/Main Hospital Driveway, the following shall be implemented: **TRAF-1** Prior to the issuance of any construction-related permits, such as a demolition or grading permit, the applicant shall prepare and implement a traffic control plan during the construction phase of the project. This plan may include construction personnel directing traffic, construction start/end times which avoid peak periods, and/or other traffic reducing measures. Ultimately, measures shall be included to regulate construction traffic flow to improve intersection operations to LOS D or better, to the satisfaction of the City Traffic Engineer. To mitigate the direct operational impact to the Medical Center Court: East of Medical Center Drive street segment, the following shall be implemented: **TRAF-2** Prior to the issuance of occupancy permits for the Ocean View Tower, the applicant shall provide eastbound left turn lanes at the Veterans Home Driveway and the West Hospital Loop Road and restripe Medical Center Court between the West Hospital Loop Road and the Main Hospital Driveway to provide a two-way left-turn lane. Medical Center Court is currently 38 feet wide, and could accommodate two 14-foot through lanes and a 10-foot two-way left-turn lane. Curbside parking along this segment is currently prohibited. To mitigate the significant cumulative impacts	Impacts would be less than significant after mitigation is incorporated.
Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.			Impacts would be less than significant after mitigation is incorporated.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	same seven intersections would operate unacceptably and no additional intersections would operate unacceptably. As identified below, the project impact to these seven intersections would be cumulatively significant under the near-term + project conditions: • Telegraph Canyon Road/I-805 NB Ramps (LOS E in PM) • E. Palomar Street/Heritage Road (LOS F in AM) • Olympic Parkway/I-805 SB Ramps (LOS E in AM and LOS F in PM) • Olympic Parkway/I-805 NB Ramps (LOS F in AM) • Olympic Parkway/Oleander Avenue (LOS E in AM) • Olympic Parkway/Brandywine Avenue (LOS E in PM) • Olympic Parkway/Heritage Road (LOS E in PM) STREET SEGMENTS As the project would add more than 800 ADT and project traffic would be more than 5 percent of the total traffic, the project impact would have a significant direct impact to the following segment in the near-term + project conditions: • Medical Center Court: East of Medical Center Drive The project impacts at these segments (listed below) would be cumulatively significant, as these segments would operate at LOS D for more than 2 hours or LOS E/F for 1 hour under the near-term + project conditions: • Telegraph Canyon Road: Halecrest Drive to Oleander Avenue • Telegraph Canyon Road: Oleander Avenue to Medical Center Drive • Olympic Parkway: I-805 Ramps to Oleander Avenue • Olympic Parkway: Oleander Avenue to Brandywine Avenue • Olympic Parkway: Brandywine Avenue to Heritage Road Long-term + Project INTERSECTIONS Under the long-term conditions, the following one intersection (Intersection 10) would operate at unacceptable LOS E or F representing a significant cumulative impact in the long-term with project scenario: • E. Palomar Street/Medical Center Drive (LOS E in AM/PM)	identified at eight study intersections and five street segments, the following shall be implemented: **TRAF-3** Prior to issuance of occupancy permits for the Ocean View Tower, the project applicant shall contribute to the City's Capital Project Fund in an amount determined by the City to be sufficient to mitigate the project's cumulative impacts. These funds would be used in conjunction with TDIF program funds to construct system improvements that address cumulative traffic impacts.	

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	STREET SEGMENTS The following six street segments would operate at LOS D, E, or F under the long-term with project conditions: • Telegraph Canyon Road: Halecrest Drive to Oleander Avenue • Telegraph Canyon Road: Oleander Avenue to Medical Center Drive • Telegraph Canyon Road: Medical Center Drive to Heritage Road • Medical Center Drive: Telegraph Canyon Road to Medical Center Court • Medical Center Court: East of Medical Center Drive • Olympic Parkway: Brandywine Avenue to Heritage Road Based on the City's significance criteria, a significant direct impact is calculated in the long-term condition for the following segment: • Medical Center Court: East of Medical Center Drive And a significant cumulative impact is calculated in the long-term condition for the following segments: • Telegraph Canyon Road: Halecrest Drive to Oleander Avenue • Telegraph Canyon Road: Oleander Avenue to Medical Center Drive Construction Traffic Phase 3 would involve the highest construction traffic volumes (510 ADT) with internal roadway closures and, therefore, would represent the worst-case construction traffic conditions. In order to evaluate the expected conditions at the time of construction, this construction traffic analysis also incorporates the near-term cumulative traffic (i.e., assumes a 10 percent traffic growth factor). With the addition of project construction traffic to the near-term conditions, Medical Center Court/Main Hospital Driveway intersection would operate at unacceptable LOS F in the AM peak hour. As the project construction traffic would represent over 5 percent of the traffic entering the intersection, the project construction would result in the following direct impact: • Medical Center Court/Main Hospital Driveway (LOS F in AM)		

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	The project would not result in an increase in hazards due to a design feature of the project because the project would be accessed by the existing Loop Road. TRAF-1 requires implementation of a traffic control plan. Additionally, the project would construct improvements to improve traffic flow along Medical Center Court, east of Medical Center Drive (refer to Section 5.3.5.1, measure TRAF-2). These improvements would improve traffic flow and would not increase hazards along this segment. No project features have been identified that would result in an increase in hazards.	No mitigation is required.	Impacts would be less than significant.
AIR QUALITY AND GREENHOUSE GAS EMISSIONS			
Obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP.	The project site is designated as PQ (Public and Quasi-Public) land use in the General Plan and is zoned as Administrative and Professional Office (C-O) and includes a P modifying district, which indicates that the project is subject to Precise Plan. The zoning designation is C-O-P. The project site is currently used as a hospital and the project would not alter that land use. While the proposed project would add new hospital beds, it would not generate any additional population nor would it encourage population growth in excess of what is considered in the RAQS and applicable portions of the SIP. As the project would be consistent with the General Plan land use designation and with the growth anticipated by the General Plan and SANDAG.	No mitigation is required.	Impacts would be less than significant.
Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation.	Construction Construction operations are subject to the requirements established in Regulation 4, Rules 52, 54, and 55, of the SDAPCD's rules and regulations. Standard dust control measures would be implemented as a part of project construction in accordance with SDAPCD rules and regulations. Maximum daily construction emissions are projected to be less than the applicable thresholds for all criteria pollutants. Operation Mobile source emissions would originate from traffic generated by the project. Area source emissions would result from activities such as the use of natural gas and consumer products. In addition, landscaping maintenance activities associated with the proposed land uses would produce pollutant emissions. Project-generated emissions are projected to be less than the significance thresholds for all criteria pollutants.	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	Stationary Source Emissions The cooling tower would generate minimal amounts of PM_{10}. As discussed previously, the cooling tower must comply with the requirements of SDAPCD Rule 1202 and, thus, is not anticipated to generate substantial amounts of air pollutant or toxic emissions.		
Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors).	The project would not generate emissions in quantities that would result in an exceedance of the NAQQS or CAAQS for ozone, PM_{10}, or $PM_{2.5}$.	No mitigation is required.	Impacts would be less than significant.
Expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates.	CO Hot Spots There would be no harmful concentrations of CO as localized air quality emissions would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations. Construction – Diesel Particulate Matter The use of off-road heavy-duty diesel equipment would be temporary, short in duration when compared to 30 years, and in combination with the highly dispersive properties of diesel PM beyond 300 feet, project-generated, construction-related emissions of TACs would not expose off-site sensitive receptors to substantial emissions of TACs. Stationary Equipment The project proposes the installation of new mechanical equipment including boilers, chillers, a cooling tower, air handling units, and an emergency generator. These sources would be subject to the requirements of SDAPCD Rule 1200. Under SDACPD Rule 1200 the project would be required to prepare a Health Risk Assessment to demonstrate that impacts are less than 1 in a million excess cancer risk without use of T-BACT, or less than 10 in a million excess cancer risk with T-BACT. TAC emission sources are also be required to obtain a permit to construct and operate from the SDAPCD. The Health Risk	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	Assessment demonstrating the risk associated with the new sources would be required prior to issuance of these permits.		
Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	The project would result in a total of 8,565 $MTCO_2E$ per year. The level of impacts associated with contribution of GHGs to cumulative statewide emissions would be less than significant as project emissions would be less than the 10,000 $MTCO_2E$ threshold.	No mitigation is required.	Impacts would be less than significant.
Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs.	The project would emit less than 10,000 $MTCO_2E$ annually. Further, the project's 2020 emissions totals represent the maximum emissions inventory for the project; as project emissions would continue to decline from 2020 through at least 2050 based on regulatory forecasting. Emission reductions beyond 2020 would occur because of continuing implementation of regulations that further increase vehicle fuel efficiency and reduce GHG emissions from mobile sources, and the continuing procurement of renewable energy sources to meet RPS goals through year 2030. Given the reasonably anticipated decline in project emissions once fully constructed and operational, the project is in line with the GHG reductions needed to achieve the EOs' interim (2030) and horizon-year (2050) goals. Therefore, the project would not conflict with the long-term GHG policy goals of the state.	No mitigation is required.	Impacts would be less than significant.
GEOLOGY AND SOILS			
Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:			
a) Rupture of a known earthquake fault.	The geotechnical studies recommended that essential facilities maintain a setback distance from the mapped fault traces. The design of the project has incorporated this measure, and all essential facilities have been setback from the mapped fault traces.	No mitigation is required.	Impacts would be less than significant.
b) Strong seismic ground shaking	To accommodate effects of ground shaking produced by regional seismic events, seismic design can be performed in accordance with the 2013 CBC. The CBC sets forth methods to determine site-specific seismic response spectra and design parameters, which have been developed for the project (see Appendix E-2). As previously detailed, the project must also comply with SB 1953 requirements that are enforced by OSHPD. For example, the project is required to submit all design plans that would be subject to the approval of OSHPD. The proposed project would be constructed in accordance with applicable	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	regulatory requirements, which would reduce the potential for risks related to seismic events.		
c) Seismic-related ground failure, including liquefaction	The potential for liquefaction and seismically induced settlement occurring within the project site is considered to be low due to the absence of a shallow ground water table and the presence of dense fill materials (i.e., the San Diego Formation). Seismically induced settlement may occur whether the potential for liquefaction exists or not. Although there is potential for seismic-related ground failure to occur, compliance with current seismic design specifications, CBC standards, and OSHPD requirements would ensure that impacts associated with seismic-related ground failure would be less than significant.	No mitigation is required.	Impacts would be less than significant.
d) Landslides	No landslides or indications of deep-seated landsliding were indicated at the site during the field exploration or the review of available geologic literature. However, based on an open-file report from the California Geological Survey in 1995, the site is mapped as being "generally susceptible" to landslides. Therefore, a slope stability analysis was conducted as part of the Geotechnical Investigation. Based on the observations of the cut and natural slopes within a portion of the site and elsewhere across the site, there was no indication of slope failures. In addition, only slight sloughing along the toes of any of these slopes was observed. Elsewhere, slightly sloping to moderately sloping natural topography also had no indication of slope failures. Therefore, compliance with current seismic design specifications, CBC standards, and OSHPD requirements would ensure that impacts associated with seismic-related ground failure would be less than significant.	No mitigation is required.	Impacts would be less than significant.
Result in substantial soil erosion or the loss of topsoil.	Construction Impacts 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. Prior to construction, a SWPPP shall be prepared in accordance with the SWRCB Construction General Permit. The SWPPP shall describe BMPs to be used during and after construction to prevent discharge of sediment and other pollutants in storm water runoff from the project site.	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	Operational Impacts Potential erosion would be minimized by following items listed in the erosion control plan (part of the rough grading plans). In addition, BMPs such as minimizing soil compaction in landscaped areas, soil amendments, and protection of slopes, would help reduce any potential erosion. With the implementation of BMPs and proposed drainage facilities outlined in Section 5.7, Hydrology and Water Quality, impacts related to soil erosion and the loss of topsoil would be less than significant.		
Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	As previously discussed under Threshold 1, all essential facilities have been designed with at least the minimum setback from the mapped fault traces. Surface ground cracking or lateral spreading related to shaking from distant events is not considered a significant hazard. The potential for liquefaction and seismically induced settlement occurring within the project site is considered to be low due to the dense nature of proposed fill and the dense nature of the formational materials. Compliance with current seismic design specifications, CBC standards, and other regulatory requirements would ensure that the proposed project would have less than significant impacts associated with soil stability and associated geologic hazards.	No mitigation is required.	Impacts would be less than significant.
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.	According to the Geotechnical Investigation (see Appendix E-1), based on field observations, subsurface investigation, and laboratory testing, no highly expansive soils were observed at the site. However, localized more clayey expansive soils were observed in an area of the project site at 10–15 feet below the ground surface. An expansion index test performed on representative clayey soils at the site indicated a classification of “medium.” The Geotechnical Investigation contains recommendations that shall be incorporated into the design of the project.	No mitigation is required.	Impacts would be less than significant.
HAZARDS AND RISKS OF UPSET			
Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	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 hospital would continue to appropriately manage, handle, use, transport, store, and dispose of all	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	hazardous materials and waste in accordance with applicable federal, state, and local laws and manifestation of these laws will be prescribed in the HMBP and RMP. Additionally, routine hospital operations require the safe handling of bio-hazards, medical and radioactive waste. 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. 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 Occupational Safety and Health Act [OSHA] of 1970 (29 USC Sections 650 et seq.) and the Cal-OSHA program (Title 8 of the California Code of Regulations Sections 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.		
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 HMBP and RMP prescribed under applicable laws described above would ensure prevention and awareness in the event of a catastrophe involving hazardous materials release. Other plans, described in the City of Chula Vista chapter in the Multi-Jurisdictional Hazards Mitigation Plan (MJHMP) and the General Plan identify the risks of a hazardous event and the steps involved to react and mitigate for such catastrophic events. Additionally, the building is designed to reduce the transmission of infection and bio-hazards, for example, by providing separate beds for each room and placing the cafeteria on its own separate floor. Sharp's migration into a HRO is also a way of preventing or reducing mistakes that can equal great harm, especially in the healthcare industry where the stakes are very high. Required preparation of, and compliance with, plans including but not limited to the HMBP, RMP, MJHMP would ensure that the risk of upset is less than significant.	No mitigation is required.	Impacts would be less than significant.
Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances,	There are four schools located less than one mile from the proposed project: La Petite Preschool and Hedencamp, Parkview, and Rogers elementary schools. These schools are located approximately 0.90,	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
or waste within one-quarter mile of an existing or proposed school?	0.5, 0.70, and 0.75 mile, respectively, north, southeast, southwest, and west of the project site. None of the above-mentioned schools are located within one-quarter of a mile, and as noted previously, the project would adhere to regulatory requirements regarding all forms of handling, storage, and disposal of hazardous chemicals including bio-hazardous and radioactive waste. The project would not expose schools or school-aged youth to hazardous materials and substances.		
Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	The Sharp Ocean View Tower project area is currently used as loading docks and for parking, and the land has been recently graded as part of the "make ready" phase. According to the SWRCB GeoTracker database, along with the California DTSC EnviroStor database, the project site and vicinity (one-mile radius) would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.	No mitigation is required.	Impacts would be less than significant.
For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	The project site is located 3.75 miles northwest of the Brown Field Municipal Airport. The project site is surrounded by existing development and is not located within the airport's influence area based on Figure 9-13 of the City's General Plan (2005) and the Brown Field Airport Land Use Compatibility Plan (San Diego County Regional Airport Authority 2010). Thus, the project would not result in a safety hazard for sensitive receptors in the project area.	No mitigation is required.	No impacts would occur.
Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	The proposed 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.	No mitigation is required.	Impacts would be less than significant.
HYDROLOGY AND WATER QUALITY			
Result in an increase in pollutant discharges to receiving waters (including impaired water bodies pursuant to the Clean Water Act Section 303(d) list), result in significant alteration of receiving water quality during or following construction, or violate any water quality standards or waste discharge requirements.	The project would discharge into the Otay River which is not a 303(d) listed water body. However, runoff would eventually be conveyed to the west into San Diego Bay, which is a 303(d) water body for PCBs (polychlorinated biphenyls). Construction and operation of the project would release sediments, heavy metals, organic compounds, trash and debris, and oil and grease. The project has the potential to release nutrients, oxygen-demanding substances, bacteria and viruses, and pesticides into surface water. Therefore, the project must comply with the City's Development Storm Water Manual and other applicable storm water	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	quality standards during and after construction. As such, the project would employ source control and site design BMPs. Additionally, the project would implement rain shutoff devices and flow reducers for landscaping and irrigation. Construction activities would include (but not be limited to) the following temporary BMPs: silt fence, fiber rolls, desilting basin, storm drain protection, and stockpile management. LID and site design BMPs are designed to infiltrate, filter, and/or treat runoff from the project footprint. Two modular wetlands and two cisterns located east and south of the Ocean View Tower would be implemented. Implementation of these BMPs, along with regulatory compliance, would preclude any violations of applicable standards and discharge regulations.		
Substantially deplete ground water supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). Result in a potentially significant adverse impact on ground water quality.	The project would not use ground water sources and would instead connect to the Otay Water District's public water system that is available to the Sharp hospital campus.	No mitigation is required.	Impacts would be less than significant.
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.	Runoff from the project site currently flows to the City of Chula Vista storm drain inlet located along the easterly border of the property. The proposed project would not alter the drainage contours of the existing land surface and would result in the same peak runoff volumes and flow rates for the 100-year event, equivalent to 6.84 cubic feet per second (cfs) for Basin A and 6.02 cfs for Basin B. The existing flow rates would remain the same post-construction; however, the on-site drainage pattern would change slightly to be conveyed around the new tower, resulting at the same point of compliance along the eastern border and northwest corner of the project footprint. The proposed condition would not create additional hardscape as the existing condition is a paved parking lot and staging area. Nevertheless, improvements proposed as part of the project include	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	new grated storm drain inlets in paved areas and a new underground storm drain system which would ensure the total peak flow runoff does not increase.		
Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, or place structures within a 100-year flood hazard area which would impede or redirect flood flows.	The project site is not located within a 100-year flood hazard area. As described above, the project would retain the existing drainage pattern, and runoff would continue to be primarily conveyed to the eastern border. The proposed project would have no increase in runoff and would not increase flooding on- or off-site.	No mitigation is required.	Impacts would be less than significant.
Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	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 (City of Chula Vista General Plan 2005). The site is not at risk for inundation from a failure of a levee or a dam, because it is not located downstream of a dam.	No mitigation is required.	Impacts would be less than significant.
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.	Runoff from the site would be directed to two proposed modular wetlands and two cisterns (9,750 cubic feet) located south and northeast of the proposed structure prior to discharging into the point of compliance along the eastern border. These site design BMPs would treat storm water runoff via the on-site modular wetlands and the cisterns would store and release water through a meter prior to off-site discharge in order to comply with hydromodification and City/RWQCB storm water quality standards. The project would not create or contribute to runoff that would exceed the capacity of existing or planned storm water drainage systems, because runoff volumes in the post-development condition would be the same as the existing condition.	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
NOISE			
Result in the exposure of persons to or generation of noise levels in excess of standards established in the Chula Vista General Plan or noise ordinance, or applicable standards of other agencies.	Vehicle Traffic Noise The main source of traffic noise at the project site is vehicle traffic on Medical Center Court, Telegraph Canyon Road, East Palomar Street, and Medical Center Drive. On-site noise level contours were calculated based on the peak traffic hour volumes. Peak hour traffic volumes were calculated as 10 percent of the total average daily traffic (ADT) volume. Typically, the predicted CNEL and the maximum daytime hourly L_{eq} calculated are equal. Cumulative (2035) traffic volumes on roadways in the vicinity of the project site were obtained from the project traffic report (LLG 2015). The vehicle classification mix was developed from field observations, which were used to determine the vehicle classification mix, or the percentage of automobiles, medium trucks, and heavy trucks from the total volume. Interior noise levels attributable to exterior sources shall not exceed 45 CNEL. Standard masonry construction would provide a noise reduction of at least 25 dB (FHWA 2011). The loudest projected exterior noise level due to vehicle traffic is 57 CNEL. A 25 dB reduction would result in interior noise levels of 32 CNEL. Thus, interior noise levels are not projected to exceed 45 CNEL. On-Site Generated Noise The noise sources on the project site after construction would be those typical of the existing hospital campus, such as vehicles arriving and leaving, including emergency vehicles; mechanical equipment; and maintenance activities. Parking lot noise, emergency vehicles, and general maintenance activities are not anticipated to violate the CVMC or result in a substantial permanent increase in existing noise levels. Mechanical equipment would be added as a part of the project. A new cooling tower would be installed within the existing cooling tower structure at the north end of the parking structure. A new 1,500-kilowatt emergency generator would be located immediately east of the existing emergency generator building. The new tower would also include a boiler room on the top floor. Other mechanical noise sources associated with the new structure would be 11 roof-mounted air handler units, 9 of which would be located on the second floor of the tower between the new seven-story tower and the existing hospital building.	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
	Equipment noise levels at the property line would not exceed the most restrictive CVMC standard of 45 dB(A) L_{eq} at the nearest residential property line.		
Result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	Groundborne vibration is not a common environmental problem. It is unusual for vibration from transportation sources, such as buses and trucks, to be perceptible, even in locations close to major roads (Caltrans 2013a). Project construction equipment used during site excavation would have the greatest potential to generate vibrations that would affect nearby residential land uses. Construction equipment would include loaded trucks, an excavator, as well as a dozer or loader. Vibration levels from these pieces of equipment would generate vibration levels with a PPV ranging from 0.035 to 0.089 in/sec PPV at the nearest residence. Human reaction to vibration is dependent on the environment the receiver is in as well as individual sensitivity. Construction vibration levels would be below the distinctly perceptible threshold.	No mitigation is required.	Impacts would be less than significant.
Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	The project would increase traffic volumes on local roadways. Noise level increases would be greatest nearest the project site, as this location would represent the greatest concentration of project-related traffic. Existing traffic noise level increase along all roadway segments would be 1 CNEL or less when looking at the increase associated with the project only. Under the near-term condition, noise level increases would also be 1 CNEL or less. Under cumulative condition, there are predicted to be increases of 6 CNEL along East Palomar Road between Oleander Avenue and Medical Center Drive and 2 CNEL increases along East Palomar Street between Medical Center Drive and Medical Center Court and along Medical Center Court between Medical Center Drive and the hospital, however, the project would contribute 1 CNEL or less to cumulative increases.	No mitigation is required.	Impacts would be less than significant.
Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	Although the existing adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be short-term. 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 Chula Vista Construction Noise Ordinance. Because construction activities associated with the proposed project would comply with the applicable regulation for construction, temporary increases in noise levels from construction.	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
PALEONTOLOGICAL RESOURCES			
Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	The project site contains geologic formations considered to be of high and moderate sensitivity for fossils. The area proposed for the Ocean View Tower (OVT) is underlain by the San Diego and Lindavista formations, which are formations of high and moderate paleontological sensitivity, respectively. Undocumented fill is of low sensitivity. Based on the potential to encounter fossils within formations of high and moderate paleontological sensitivity, impacts due to grading and excavation, for project would potentially impact significant the paleontological resources (**PALEO-1**).	Paleontological monitoring shall be undertaken during ground disturbing activities for the project in order to ensure that impacts are reduced to below a level of significance. **PALEO-1;** Prior to the issuance of grading permits for the proposed project, the Applicant shall confirm to the Development Services Director, or their designee, that a qualified paleontologist (QP) has been retained to carry out an appropriate mitigation program. A QP is defined as an individual with a doctorate or a master's degree in paleontology or geology, who is familiar with paleontological procedures and techniques. A pre-grade meeting shall be held between the paleontologist and the grading and excavation contractors. A paleontological monitor shall be on-site at all times during the original cutting of previously undisturbed sediments of highly sensitive geologic formations (i.e., San Diego Formation) to inspect cuts for contained fossils. (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.) The paleontological monitor shall work under the direction of a qualified paleontologist. The monitor shall be on-site on at least a half-time basis during the original cutting of previously undisturbed sediments of moderately sensitive geologic formations (i.e., Lindavista Formation) to inspect cuts for contained fossils. When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time. However, some fossil specimens (such as a complete whale skeleton) may require an extended salvage time. In these instances, the	Impacts would be less than significant after mitigation is incorporated.
Be inconsistent with General Plan paleontological policies thereby resulting in a significant physical impact.	The San Diego and Lindavista formations present underlying the footprint of the OVT, have high and moderate (respectively) potential for paleontological resources, and therefore this would be a potentially significant impact due to construction. With implementation of the **PALEO-1** mitigation measure, the proposed project would comply with all necessary procedures to protect and minimize damage to paleontological resources and would be consistent with all General Plan goals, objectives, and policies related to paleontological resources.		Impacts would be less than significant after mitigation is incorporated.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
		paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains such as isolated mammal teeth, it may be necessary in certain instances and at the discretion of the paleontological monitor to set up a screen-washing operation on the site. Prepared fossils along with copies of all pertinent field notes, photographs, and maps shall be deposited in a scientific institution with paleontological collections such as the San Diego Natural History Museum. A final summary report shall be completed. This report shall include discussions of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.	
PUBLIC UTILITIES			
Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	The Otay Water District has evaluated the projected 350 GPM requirements for the proposed project, In a letter dated November 23, 2015 the OWD determined that the district has the water storage capacity to serve the proposed project. Therefore the construction of new facilities will be not required to serve the projects projected water requirements. The project proposes to construct a 12-inch public line extending from the end of the existing 8-inch water main in the Sharp Center Cancer Private Driveway north and west around the Sharp Medical center buildings to the existing 12-inch 711 Zone water main in Medical Center Court. Extending off this new 12-inch water main wil be new domestic water, fire hydrant services, new fire sprinkler laterals, and irrigation services. New fire sprinkler system laterals will supply the project building fire sprinkler systems. The project also proposes to add a new 4-inch domestic water meter to augment the existing 4-inch domestic meter serving the Sharp Medical Center hospital. Construction of the project will increase the total load of water utilized by 350 GPM.	No mitigation is required.	Impacts would be less than significant.

TABLE 1-1
SUMMARY OF SIGNIFICANT ENVIRONMENTAL ANALYSIS RESULTS

Environmental Issue	Results of Impact Analysis	Mitigation	Impact Level After Mitigation
Require new or expanded supplies or facilities to meet projected needs.	The Otay Water District has evaluated the projected 350 GPM requirements for the proposed project, In a letter dated November 23, 2015 the OWD determined that existing district infrastructure is sufficient to serve the proposed project. Therefore the construction of new facilities will be not be required to serve the projects projected water requirements.	No mitigation is required.	Impacts would be less than significant.
Result in the Proposed Project being inconsistent with the UWMP prepared by the CWA.	The SDCWA approved and published its 2010 UWMP in June 2011. Based on SANDAG's 2050 Regional Growth Forecast the 2010 UWMP includes population growth anticipated by the City's 2005 GPA, as well as the current GPA application.	No mitigation is required.	Impacts would be less than significant.
Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate planned capacity to serve projected demand in addition to the provider's existing commitments.	The wastewater outflow for the existing Medical Center facilities is calculated to be approximately 29,400 gpd. The approved City of Chula Vista Sewer Master Plan identified the entire Medical Center site area as producing 82,375 gpd at final build-out. The proposed project will have an estimated flow of 28,400 gpd. Existing plus proposed would be 47,800 gpd, which is within the final build-out projections for the campus.	No mitigation is required.	Impacts would be less than significant.
Be served by landfills with insufficient permitted capacity to accommodate the project's solid waste disposal needs.	According to CalRecycle (State of California 2011), the Otay estimated closing date is February 28, 2028. As calculated using the Integrated Waste Management estimates of yearly hospital solid waste generation per bed per year, the Proposed Project would generate an additional 460.92 tons of solid waste per year of operation. This incremental increase in contribution to the Otay Landfill would not be considered significant.	No mitigation is required.	Impacts would be less than significant.

2.0 INTRODUCTION

This introduction provides the background and rationale for the purpose, content, and review procedures for this Environmental Impact Report (EIR) 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 proposed project;
- To disclose potential environmental impacts of the proposed 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 proposed project.

The environmental impact analysis outlines the environmental setting of the proposed 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 proposed 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, 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 prepared and circulated on January 27, 2016. The purpose of the NOP is to solicit comments from the public on potential environmental issues to be examined in the EIR. The NOP and comments are included in 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. Pursuant to CEQA Guidelines Section 15126, all phases of the project are considered in this EIR when evaluating its potential impacts on the environment, including the planning, acquisition, development, and operation phases. 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
- Aesthetics
- Transportation and Circulation
- Air Quality
- Greenhouse Gas
- Geology and Soils
- Hazards and Risks of Upset
- Hydrology and Water Quality
- Noise
- Paleontological Resources
- Public Utilities

The following subject areas have been determined to not be considered significant and are further discussed in Section 9.0 of this EIR.

- Cultural Resources
- Biological Resources
- Agricultural Resources
- Housing and Population
- Mineral Resources
- Public Services

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, 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 8.0, 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 9.0, 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 10.0, Project Alternatives.** Provides a description of alternatives to the project, including a No Project (No Development) Alternative and a Reduced Development Alternative.

- **Chapter 11.0, Mitigation Monitoring and Reporting Program (MMRP).** Documents all the mitigation measures identified in the EIR and required as part of the project.

- **Chapter 12.0, References Cited.** Lists all of the reference materials cited in the EIR.

- **Chapter 13.0, 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 provides the basis for approving the project.

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 proposed project, or entities which are likely to have an interest in the proposed project, including, but not limited to the following:

- California Air Resources Board
- California Department of Fish and Game
- 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 proposed project is located within the City of Chula Vista, in southwestern San Diego County approximately one mile east of Interstate 805 (I-805) and one-quarter of a mile south of Telegraph Canyon Road. The project area is located on the U.S. Geological Survey 7.5-minute series Imperial Beach quadrangle. The topography consists of a relatively flat (ranging from 435 to 455 feet above mean sea level) area bounded to the north/northeast by Loop Road. The property is in the East Planning Area of the City's General Plan (Public/Quasi Public Lands category) and is subject to a zoning designation of Administrative and Professional Office Precise Plan. The environmental setting is discussed in more detail within subsequent Chapter 4.0 of this document.

North-facing and east-facing manufactured cut and fill slopes are located north/northeast of Loop Road. There are multiple existing buildings (Sharp Chula Vista Medical Center and Birch Patrick Skilled Nursing Facility), as well as four medical office buildings, a 150-space parking structure, and the new 717-space parking structure on the property that will remain.

3.2 Project Background

The 343-bed Sharp Chula Vista Medical Center has grown over the years to accommodate increased demand and need for services. The East Tower was the first major facility, opening in 1975, and was supplemented by the construction of the Birch Patrick Facility in 1989, which included 100 skilled nursing and long-term care beds. An additional 104 beds were added in 1991 when the West Tower was constructed; then the Douglas and Nancy Barnhart Cancer Center and medical offices opened in 2012. However, the hospital experiences shortages of 25 to 30 beds every day, resulting in diversions of patients to other facilities and the shortage is anticipated to increase as the population in the South Bay continues to expand. In 2012 Sharp began planning for this growth by developing a new Master Plan which provides a comprehensive solution to both the current overcrowding situation and the need to meet the requirements of the Senate Bill (SB) 1953 seismic requirements.

The City of Chula Vista approved "Make Ready" work which was completed in late 2015. The Make Ready phase included relocations and reorganization of existing utilities, cooling towers, and surface parking; as well as construction of a new parking structure and Loop Road.

3.3 Project Objectives

Section 15124(b) of the California Environmental Quality Act (CEQA) Guidelines requires an 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 Ocean View Tower (OVT), as well as the underlying purpose of "hardwiring" safety and redundant systems in order to facilitate the goal of zero defects. To achieve both the primary and secondary purpose, the following objectives are envisioned:

1. Provide a state-of-the-art medical center that provides the best place to receive care, practice medicine and to work, in the universe. (Sharp HealthCare's mission statement.)

2. To construct a medical center compliant with the state's Office of Statewide Health Planning and Development (OSHPD) seismic safety regulations beyond 2030 and relocate support services to compliant space, right sized for the growth of patient volumes beyond 2030.

3. To construct a seven-story, 197,696-square-foot tower with 138 single occupancy beds, 6 operating rooms with pre- and post-operating recovery spaces, sterile processing, dietary services, materials management, a loading dock, and other support services.

4. Facilitate Sharp Chula Vista Medical Center's goals of becoming a "High Reliability Organization" or "HRO" by designing and constructing the OVT such that high quality, patient centered care is delivered while hardwiring the highest safety standards in infection and defect prevention.

5. Facilitate the goal of Sharp Chula Vista Medical Center to achieve "Designation with Distinction – Planetree Patient Centered Hospital" - by including inspiring features such as the Ocean View Café, and calming/relaxing features such as natural lighting, family zones in the patient rooms, a chapel, meditation gardens, library and hospitality-like-finishes.

6. Construct the "Ocean View Café" on the seventh floor, providing high quality fresh food in a naturally lit and inspiring setting.

7. Provide enough acute care and intensive care beds to enable the future conversion of approximately 70 of the existing semi-private (2-bed) acute care patient rooms into single occupancy rooms. This conversion drives the safety goal by reducing the chance of infection between patients.

8. Provide six state-of-the-art operating rooms, with associated support space and systems, such that the patient flow is optimized.

9. Construct acute care beds and operating rooms, in conjunction with the expansion to the Emergency Department (ED) completed in 2012, to eliminate the approximately 30 patients per month which are "overflow" and redirected to other facilities (both Sharp and non-Sharp Medical Centers).

10. Provide optimized space and flow for sterile processing, dietary services, and post-op support to reduce bottlenecks, increase safety, and ensure that patients who need to be admitted, are able to be admitted quickly and to this campus.

11. Reduce or eliminate the current need to divert patients when space at the Chula Vista Medical Center is not available and drastically reduce:

    - Number of hours per month of ambulance diversion or bypass.

    - Number of patients leaving without treatment (elopements) and leaving against medical advice.

    - Number of patients diverted to other facilities or remaining in the ED longer than 4 hours before being admitted.

3.4 Discretionary Actions

The Chula Vista City Council will consider the following discretionary actions required to implement the project:

- Conditional Use Permit (CUP)
- Major Planning Application (Precise Plan)
- Design Review

3.4.1 Conditional Use Permit

Implementation of the project would require approval of a Conditional Use Permit (CUP-15-0025) to allow an "unclassified use" (hospital) to be constructed within the Administrative and Professional Office (CO) zone.

3.4.2 Major Planning Application

The project would require approval of a Major Planning Application (MPA-15-0021) as specified in the Precise Plan, P district to allow for an increase in the allowable building height in the Administrative and Professional Office (CO) zone from 45 to 120 feet.

3.4.3 Design Review

Approval of a Design Review (DR15-030) to allow for the construction of the proposed hospital tower..

3.4.4 Certification of Final EIR

In order to comply with requirements of CEQA, approval of the three 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 and approval of the CEQA Findings and Statement of Overriding Considerations (EIR 15-002).

3.5 Project Overview

The applicant, Sharp Healthcare (Sharp) proposes to construct a new hospital tower (Ocean View Tower or OVT) on a 2.47-acre footprint within the existing Sharp Chula Vista Medical Center campus. The new tower would be constructed in the northerly portion of the campus, within an area bounded by the recently completed Loop Road (Figure 3-1). The OVT would be seven stories in height: to include 138 beds; 6 operating rooms with pre- and post-operational support; sterile processing; dietary services; material management; dock; morgue; and pharmacy; as well as a rooftop ocean view café. Figure 3-2 provides a floor plan for the first level, mostly subterranean, with receiving, sterile processing, material management, and other support services such as the morgue. Figure 3-3 shows the second floor, at ground level, which includes the new lobby, reception, gift shop, intensive care unit rooms, the six new operating rooms, pre-op rooms, and post-anesthesia care unit. A typical bed floor, containing 32 beds per floor as well as family waiting areas, staff lounge, nurse station, and other supporting uses is shown in Figure 3-4. The floor plan for the proposed Ocean View Café on the seventh level is shown in Figure 3-5.

The proposed tower would be adjacent to the existing hospital; with the first two floors interfacing directly with the East Tower. The proposed 197,696-square-foot OVT would be seven floors, six above grade and one mostly sub-grade (subterranean on three sides; above ground on one side). The west and north elevations are shown on Figure 3-6, while the east and south elevations are shown on Figure 3-7. Three-dimensional renderings illustrating how the proposed OVT would interface with the existing hospital towers are shown on Figures 3-8 and 3-9. Total height would be 110 feet 9 inches for the 7-story tower itself; reaching a maximum height of 120 feet to the top of the elevator enclosure (see Figure 3-7, East and South elevations).

Source:Hensel Phelps

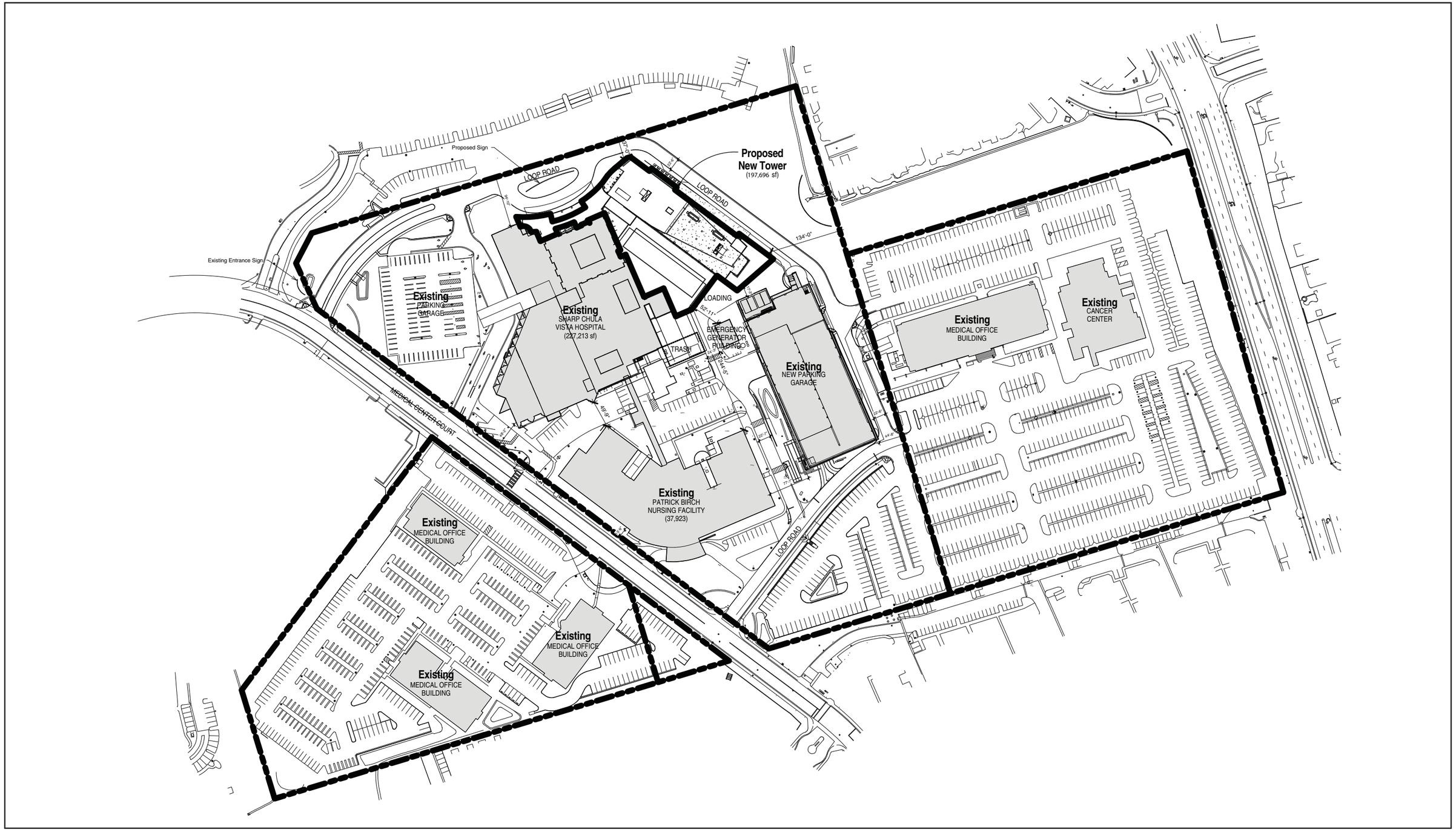

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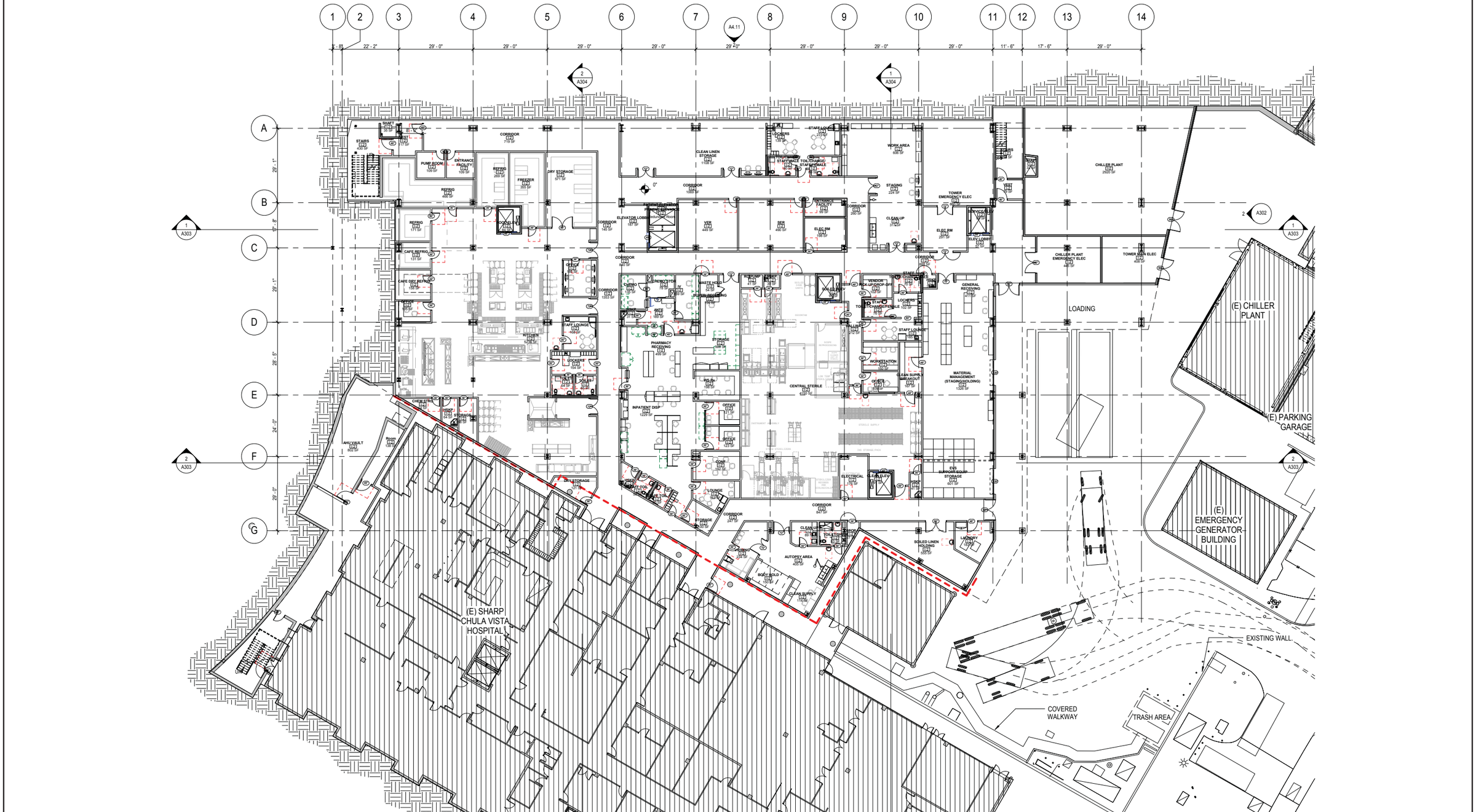
FIGURE 3-1
Site Plan

Source:Hensel Phelps



0 Feet 32

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FIGURE 3-2
First Floor Plan

Source:Hensel Phelps

FIGURE 3-3

Second Floor Plan

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Source:Hensel Phelps

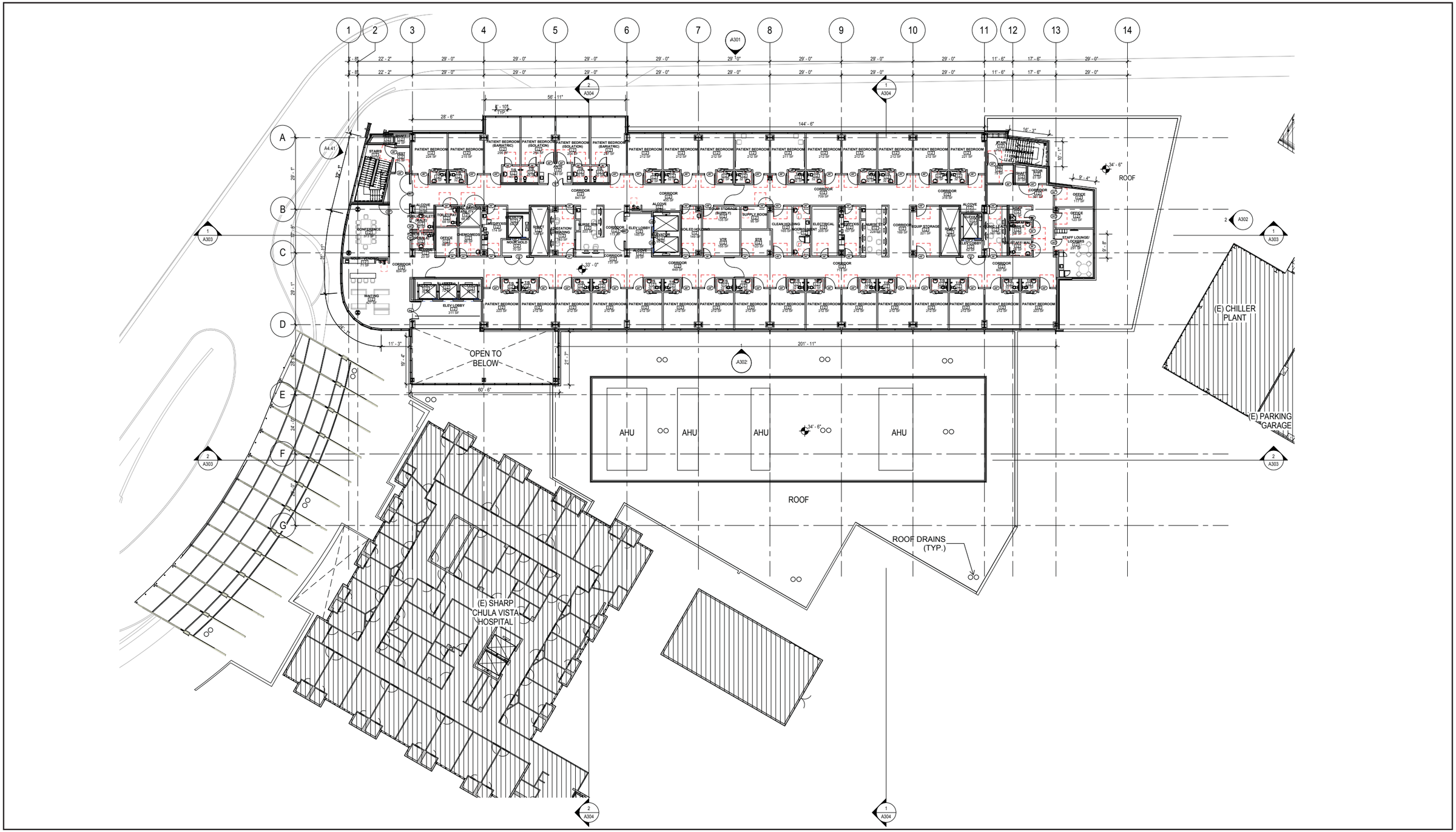

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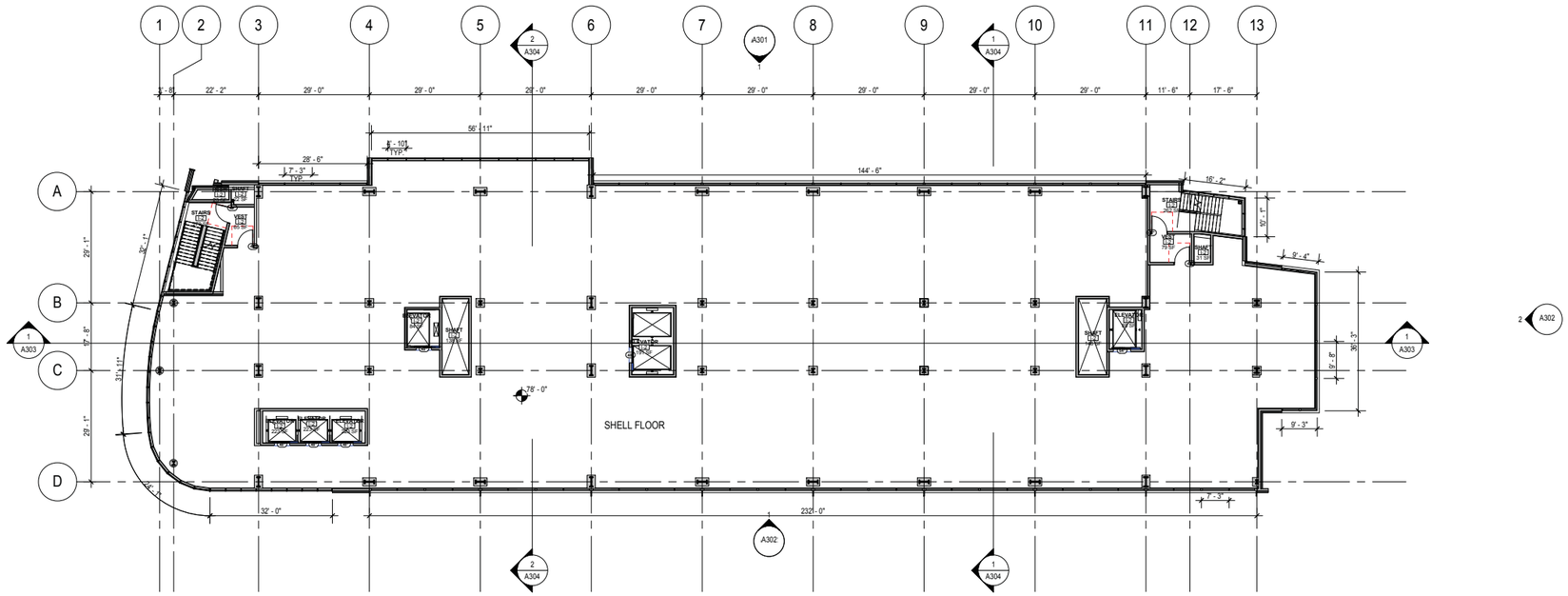
FIGURE 3-4

Typical Bed Floor (Floors 3 through 6)

Source:Hensel Phelps



1 OVERALL LEVEL 6 FLOOR PLAN
SCALE: 1/16" = 1'-0"

2 OVERALL LEVEL 7 FLOOR PLAN
SCALE: 1/16" = 1'-0"

0 Feet 32

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FIGURE 3-5
Ocean View Café (Seventh Floor)

Source:Hensel Phelps

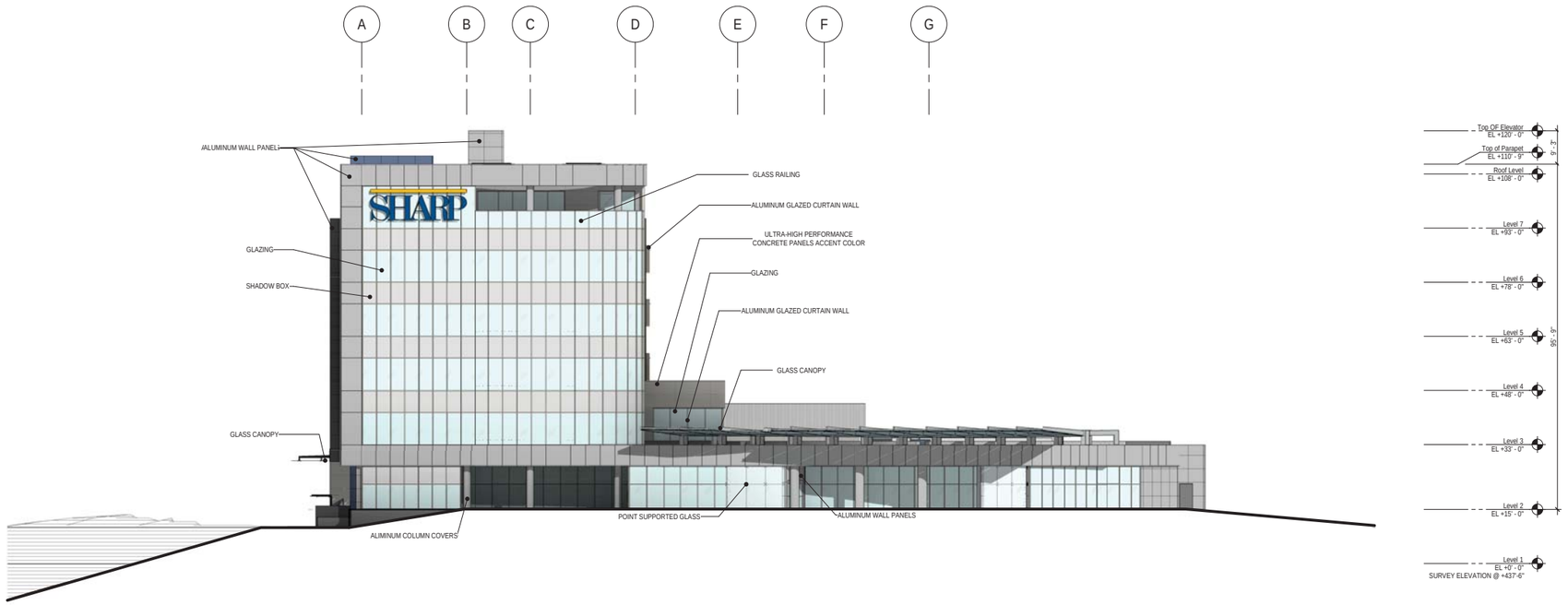

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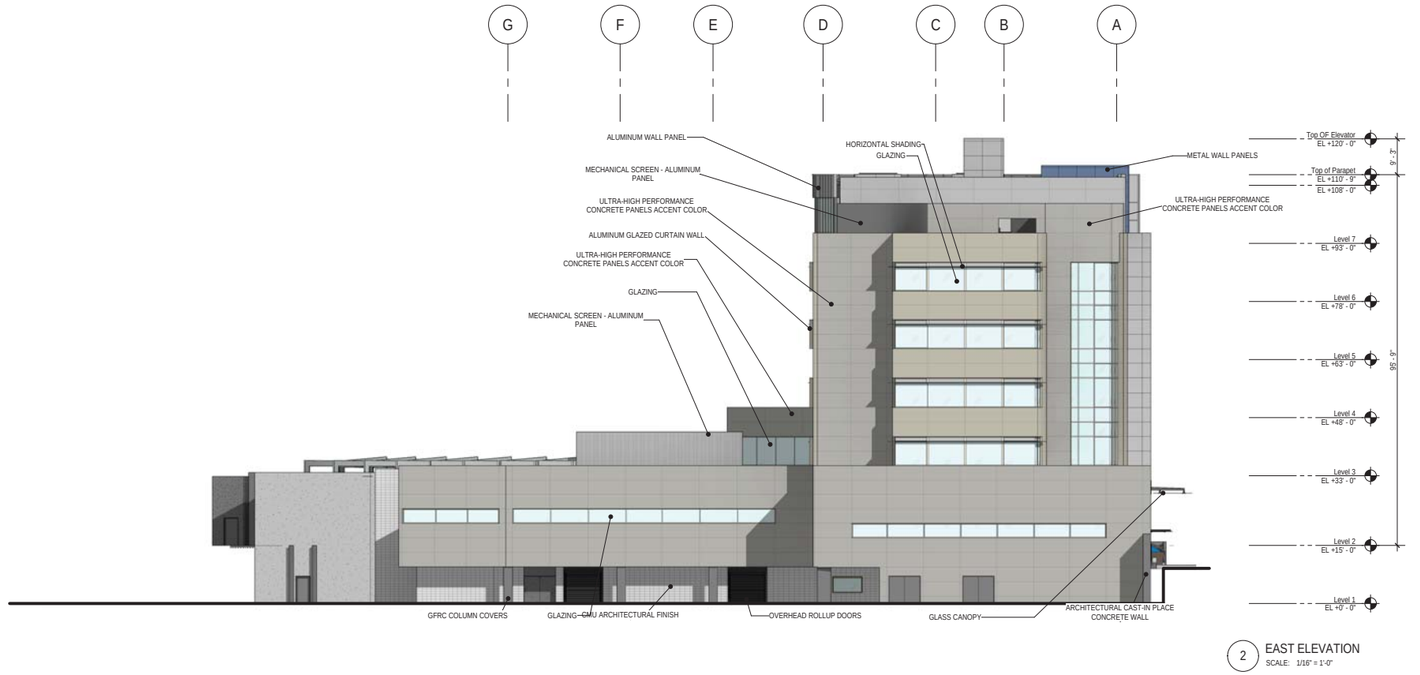
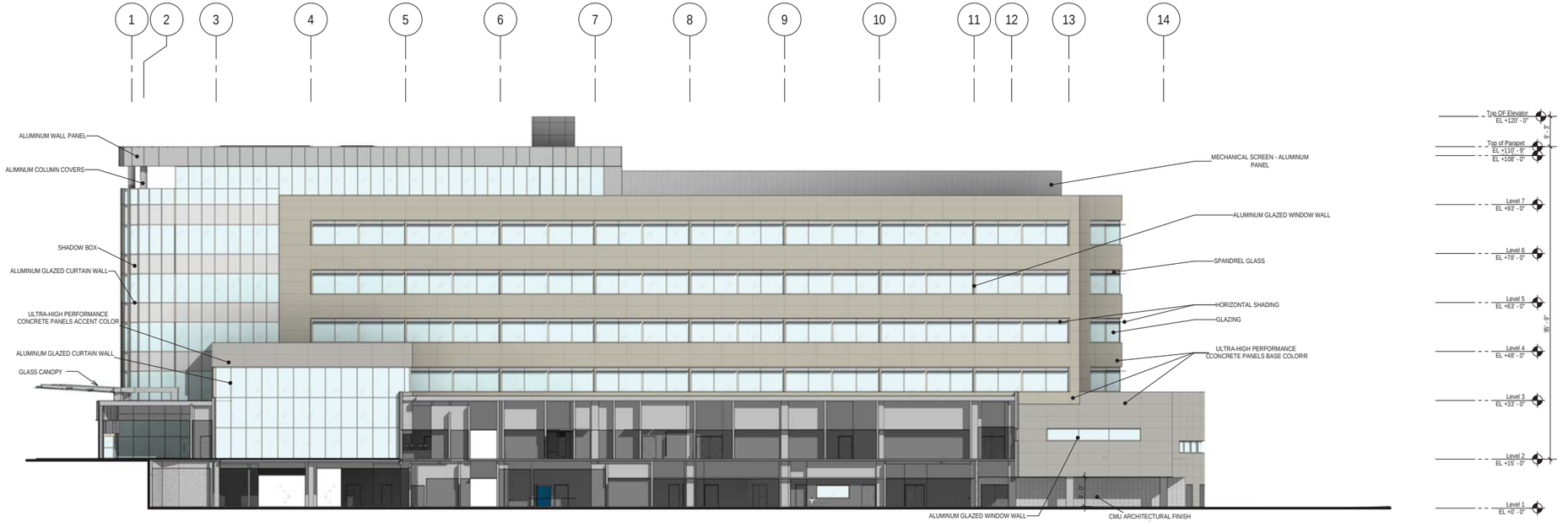
FIGURE 3-6

North and West Elevations

Source:Hensel Phelps



2 EAST ELEVATION
SCALE: 1/16" = 1'-0"



1 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

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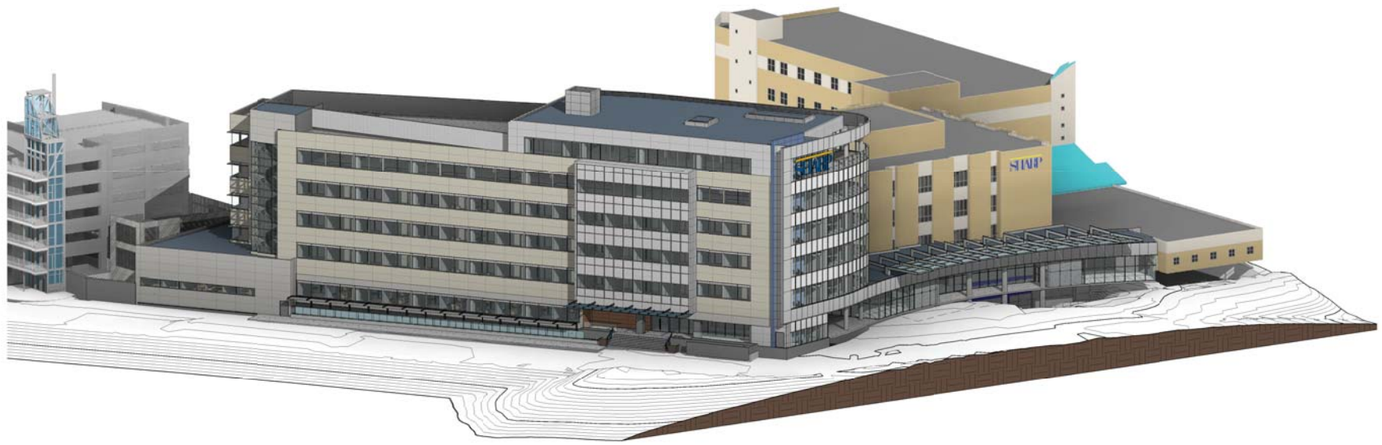
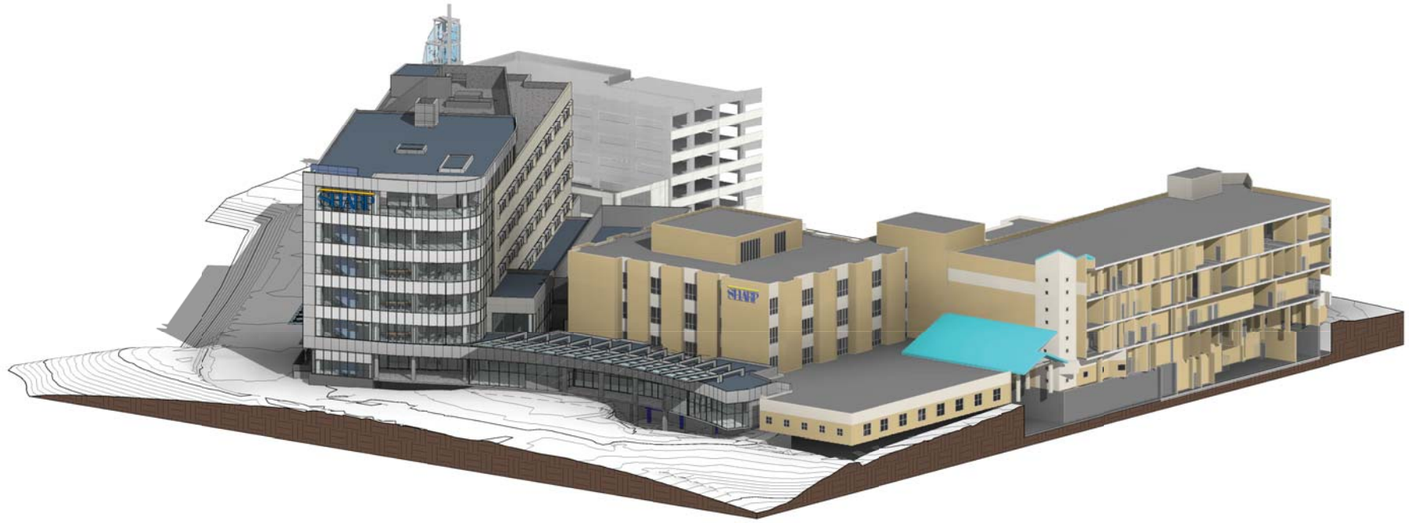
FIGURE 3-7
East and South Elevations

Source:Hensel Phelps



1 NE 3D VIGNETTE
SCALE:



2 NW3D VIGNETTE
SCALE:

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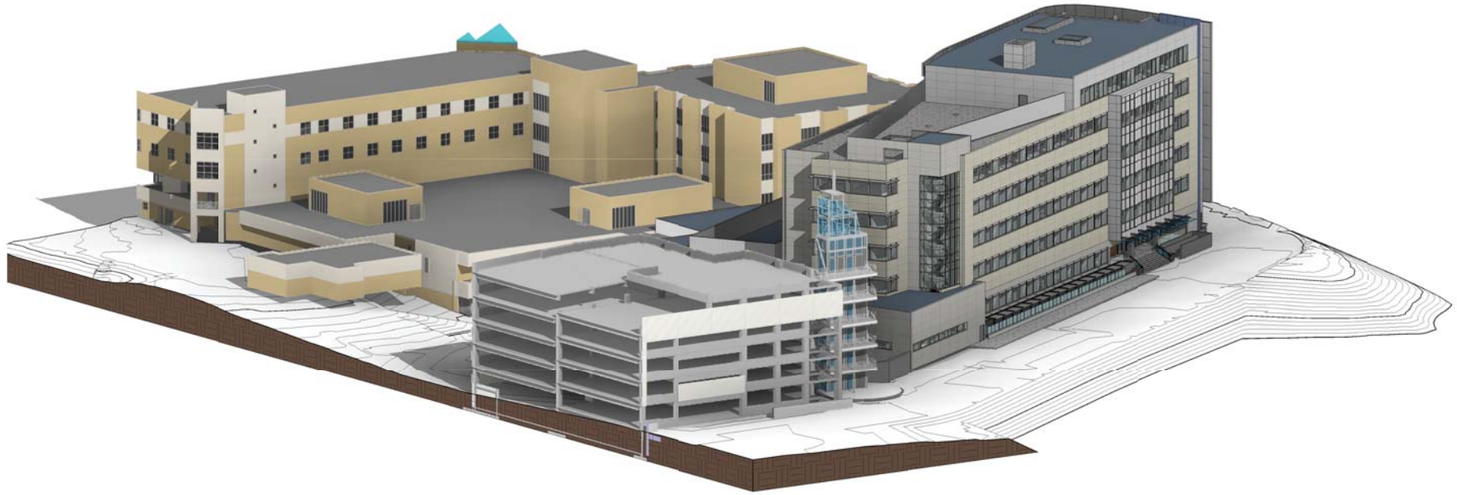
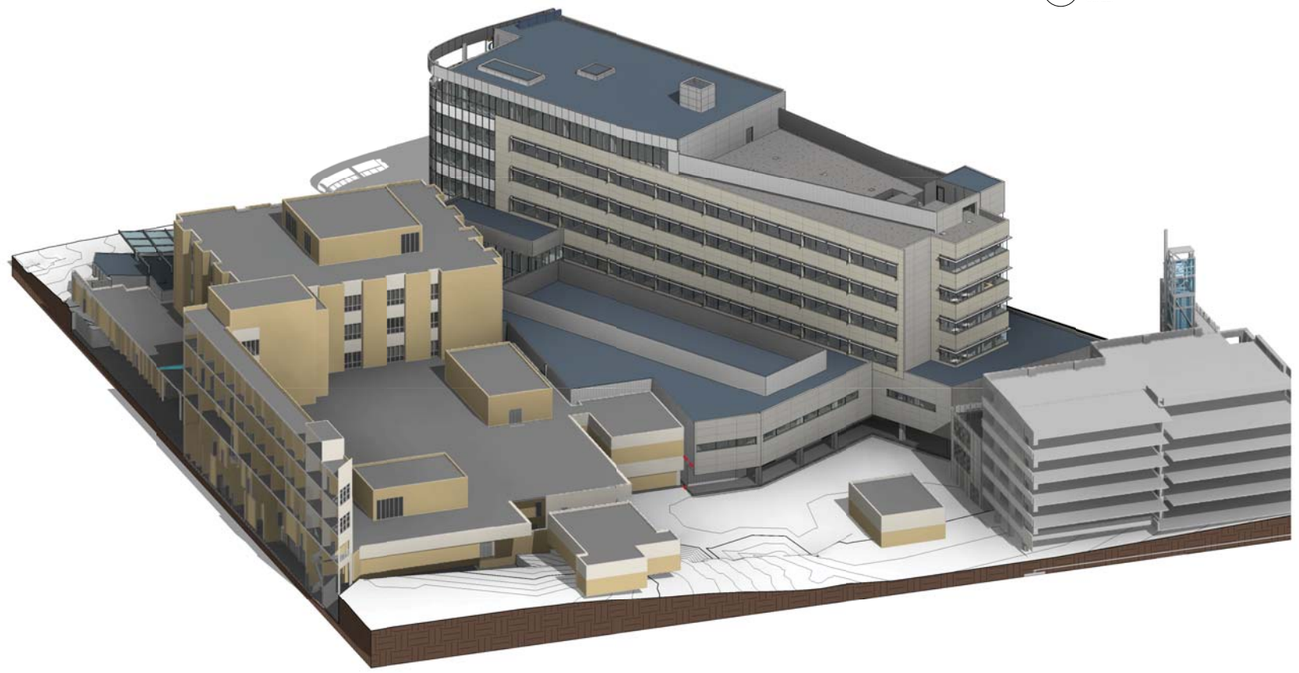
FIGURE 3-8
3D Renderings (NE & NW Views)

Source:Hensel Phelps



1 SE 3D VIGNETTE
SCALE:



2 SW 3D VIGNETTE
SCALE:

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FIGURE 3-9
3D Renderings (SE & SW Views)

3.6 Circulation and Access

A key aspect of the project is to improve the hospital entrance as well as the access to patient drop-off and parking for the medical center. Primary access to Sharp Chula Vista Medical Center is provided via Medical Center Court, which is equivalent to a Class II Collector in the City of Chula Vista. The new Loop Road, completed in late 2015, can now be used for more direct access to the new parking structure on the southeastern side of the campus, but patient drop-off is still along the north side of the medical center.

The project would construct a new main entrance (Figure 3-10) which seamlessly connects the existing east tower to the proposed OVT. When the new entrance opens, it would provide patient drop-off access along the new Loop Road. Following drop-off, drivers would then have direct access to the new parking structure and other surface lots to the east. As discussed in Section 5.2, the project would implement left-turn lanes from Medical Center Court, into the new Loop Road, as part of its CEQA required mitigation.

3.7 Parking

As shown on Figure 3-1, there are numerous surface stalls on the eastern and southwestern portions of the campus, but parking in close proximity to the medical center was previously limited primarily to the 150-stall parking structure immediately to the west of the existing west tower. The new parking structure to the east of Birch Patrick opened in 2014, providing an additional 717 parking stalls. The new Loop Road opened in 2015, providing more direct and convenient access to the new parking structure.

A Parking Study was prepared by AVRP Studios for the Sharp Chula Vista Medical Center campus (part of Appendix B).

Per 19.62.050 of the City of Chula Vista's Municipal Code, hospitals shall provide 1.5 parking spaces/bed and 1 parking space/200 square feet of floor space. Therefore, based on the uses outlined in the parking study, the center is required to provide a total of 1,605 parking spaces, as summarized below:

- 481 beds x 1.5 parking spaces = 722 parking spaces
- 176,588 square feet of floor space x 1 parking space per 200 square feet = 883 parking spaces
- Total required = 1,605 parking spaces

Source:Hensel Phelps

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FIGURE 3-10
New Main Entrance

While there is currently a total of 2,300 parking spaces within the campus, 32 spaces would be removed in order to construct the OVT. Therefore, a total of 2,268 spaces would be provided on the Sharp Chula Vista Medical Center campus post-construction, resulting in a surplus of 663 parking spaces above the 1,605 spaces required.

3.8 Phasing

Construction of the OVT and associated preparatory work (e.g., utility and loading dock relocations, etc.) are anticipated to proceed as follows:

- **Phase 1 (Planning and Coordination)** - January 2016–August 2016: Key activities include design, OSHPD permitting, investigation of existing conditions, and coordination/planning.

- **Phase 2 (Preliminary Utility Relocation, Shoring, and Foundations)** - September 2016–February 2017: Key activities include design, OSHPD permitting, securing of the construction site, the construction of pedestrian walkways, initial utilities, and the construction of a temporary loading dock. The Loop Road would be closed for this Phase of construction.

- **Phase 3 (Constructing the OVT)** - March 2017–September 2019: Key activities include construction of the building structure, building enclosure, interior finishes, and site work/loading dock. The Loop Road will be closed for this phase of construction. Traffic using the Loop Road will be rerouted to the medical center's main driveway.

- **Phase 4 (Finishing Touches)** - October 2019–February 2020: Key activities include Sharp move-in, licensing, and corridor tie-in/renovation.

3.9 The Sharp Experience

The overarching philosophy of Sharp Healthcare is contained in the quotation below:

> The Sharp Experience is not one thing we do, it's everything we do. It's our care philosophy — treating people, not patients, and transforming the health care experience for our entire community. It's not a diagnosis delivery or a treatment plan. Instead, it's the nurse who shares her story, the doctor checking in on his day off or the volunteer who delivers your favorite paper. Our journey started in 2001, when the people of Sharp HealthCare came together with a desire to make Sharp the best place to work, practice medicine and receive care. Today, we are an organization filled with passionate, determined and caring people — from our clinicians to our housekeepers, from our engineers to our call center operators. And together we are dedicated to creating an advanced, personal experience for you, your family and the people of San Diego.

3.9.1 Mission Statement

Sharp's mission statement is to "provide a state of the art medical center that provides the best place to receive care, practice medicine, and to work, in the universe." As introduced above, in the Project Objectives (Section 3.3), the project has been designed to further this goal and others through thoughtful design which hardwires safety, promotes a healing environment, and encourages patients to be active participants in improving their health. The reason the "Sharp Experience" and mission statement is relevant to this EIR is that the new OVT is the physical manifestation of the Sharp Experience and the layout of the OVT is designed consistent with the principles of a High Reliability Organization.

3.9.2 Planetree Designated Hospital

Since its founding in 1978 as a not-for-profit organization, Planetree has been a pioneer in personalizing, humanizing, and demystifying the health care experience for patients and their families. The Planetree Model empowers patients and families through information and education, and encourages "healing partnerships" with caregivers. Planetree's approach is holistic and encourages healing in all dimensions—mental, emotional, spiritual and social, as well as physical. It seeks to maximize health care outcomes by incorporating integrative medical therapies such as mind/body medicine and therapeutic massage with conventional medical therapies. Access to arts and nature are also incorporated into the healing environment.

The Planetree Model recognizes the importance of architectural and interior design in the healing process. A growing body of scientific data points to improved patient outcomes and satisfaction as a result of design factors that are homelike, barrier free, support patient dignity and encourage family participation in care. In 2014, Sharp Chula Vista Medical Center became a Designated Planetree Patient-Centered Hospital, alongside its on-site Birch Patrick Convalescent Center, as the first co-located entities in the United States to receive the prestigious patient-centered care recognition. As discussed above, Objective 4 is to facilitate the "designation with distinction" of the Sharp Chula Vista facility as a Planetree Patient-Centered Hospital. The project would incorporate the 10 principles of Planetree:

1. Value human interactions.

2. Create a healing environment – Focus of the tower through enhances views, lighting, hospitality like finishes, quiet, calm spaces.

3. Stimulate through food and nutrition – the seventh floor includes a new kitchen and café that offers quality, fresh food in an inspiring space.

4. Encourage the involvement of family and friends in the care experience – the OVT bed floors include family zones in the patient rooms and have waiting rooms and public spaces with great light and views. There are also exterior gardens that family members can wait in.

5. Communicate through human touch.

6. Be open to complimentary therapies.

7. Evolve through arts and entertainment.

8. Share the information – the design includes collaborative work spaces and a patient education library.

9. Support the quest for sense – the tower has been designed to include natural light and inspiring views as well as meditation space/chapel and fountain.

10. Be a partner with the community – the design includes public spaces like the ocean view café, an education library, and gardens.

The new surgery rooms, the café, lobby, sterilization, and pharmacy are all the optimal size to support the 138 beds without any of the departments having to sacrifice space to make room for other needs or uses. This also helps with the issue of logjams and having to turn people away. With a larger ED (completed in 2012) and now with all of these additional surgery rooms and beds, the patient flow will be better: more people can be admitted (if need be) after being seen in the ED. And this efficient flow contributes to eliminating defects (HRO) and improving the patient experience. The Ocean View Café, as well as other components of the tower such as the abundant natural lighting, large family-friendly rooms, and the calming materials and finishes, are all designed to be amenities which contribute toward patient well-being and healing.

3.9.3 High Reliability Organization

Sharp is currently working on becoming an HRO. An HRO is a grassroots way of reorganizing systems that are already in place by accomplishing goals to avoid potentially catastrophic errors. There are five guidelines relevant to an HRO and are summarized by the following:

1. Sensitive to operations (transparency) - each employee pays close attention to operations and maintains awareness through improved communication and data sharing.

2. Prevent over-simplification by finding the specific source of the problem.

3. De-stigmatize failure by encouraging employees to come forward with near-misses and focus on the processes that work best.

4. Work to find ways in which each employee, regardless of hierarchy, can provide input in order to make the organization better.

5. Resilience, despite failure, lead to problem-solving skills that helps prevent catastrophes.

The primary purpose of constructing a seismic-compliant tower with 138 additional beds is closely intertwined with the underlying goal of ensuring that the design hardwires safety, reliability, and patient comfort, with support space and facilities that are “right-sized” to improve efficiency and eliminate bottlenecks. This focus is anticipated to facilitate the future goal of becoming an HRO.

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

Chula Vista 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 4-1 and 4-2 depict the regional location and vicinity location (U.S. Geological Survey 7.5-minute series, Imperial Beach and National City quadrangles), respectively.

The proposed Sharp Ocean View Tower (OVT) project site is located on the Sharp Chula Vista Hospital campus within the East Planning Area of the City of Chula Vista. The East Planning Area is generally bounded on the west by Interstate 805 (I-805); on the north by State Route 54 (SR-54) and the Sweetwater River valley, where the City's corporate and Sphere of Influence boundaries lie; on the northeast and east by State Route 94 (SR-94), within the unincorporated County, in the San Miguel Mountain/Proctor Valley area; and on the south within and adjacent to the boundaries designated by the Otay Ranch General Development Plan (GDP).

Specifically, the project area is located one mile east of I-805, and a quarter of a mile south of Telegraph Canyon Road. Medical Center Drive is to the west, East Palomar Street is to the south, Paseo Ladera to the east, and Telegraph Canyon Road to the north. The project site is on the northeastern portion of Sharp Hospital's 16.49-acre parcel and is depicted on Figure 4-3.

4.2 Physical On-Site Characteristics

The proposed location of the OVT is on a previously graded and undeveloped portion of the Sharp Chula Vista Medical Center site. The area was previously used for surface parking; however, parking was removed with the recent completion of the parking structure located to the south of the proposed OVT.

FIGURE 4-1

Regional Location

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Image Source: SANDAG (flown November 2014)

FIGURE 4-2

Vicinity Map

RECON

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Image Source: SANDAG (flown November 2014)

FIGURE 4-3

Existing On-site Uses

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The OVT site lacks any native vegetation and is relatively flat with elevation ranging from 435 to 455 feet mean sea level. The site is bounded to the north/northeast by the newly constructed Loop Road. Beyond the Loop Road are north-facing and east-facing manufactured cut and fill slopes. Additional information regarding the topographic character of the project area is provided in Section 5.2, Landform/Visual Quality, of this EIR.

There are multiple existing buildings on-site that will remain including the Sharp Chula Vista Medical Center, Birch Patrick Skilled Nursing Facility, as well as two medical office buildings and one new parking structure (see Figure 4-3).

The OVT structure would be accessed via the newly constructed Loop Road, which provides access through the Sharp Chula Vista Medical Center in a loop configuration accessed from two locations along Medical Center Court. Loop Road is accessed from two locations at the western end of Medical Center Court (via Loop Road West and Loop Road East) and from the southernmost corner of the Sharp Chula Vista Medical Center site via the main hospital driveway. Loop Road would border the OVT structure on its northern side.

4.3 Surrounding Land Uses

As shown on Figure 4-3, the project area is surrounded by existing development. Apartments and the Chula Vista Veterans Home are located to the northwest, single-family residences to the northeast, doctor's offices and apartments to the southeast, single-family residences to the south, a cardiology center/pharmacy/doctor's offices to the southwest, and a County mental health facility to the west.

The site sits at a higher elevation than surrounding land uses to the north and northeast, with slopes providing topographic separation between land uses. When compared to land uses in other directions (to the west, south and east), the site is at a similar elevation to the surrounding land uses.

The project site is located approximately one-quarter mile south of Telegraph Canyon Road and one-quarter mile east of Medical Center Drive. The project site is accessed from Medical Center Court via Medical Center Drive.

4.4 Planning Context

The project site is in the East Planning Area of the City's General Plan within the Public/Quasi Public Lands category which is intended for schools, churches, hospitals, civic center, fire stations, libraries, landfills, public utilities, and other similar public uses. Within the East Planning Area there are six master planned communities that provide a variety of services consisting of housing; office parks; local and regional commercial

centers; schools; hospitals, and churches. The project site is located within the Sunbow Master Planned Community.

The site has been used as a medical center since the 1970s and was rezoned from residential (R1H) to Administrative and Professional Office with Precise Plan (C-O-P) zone in 1990. The precise plan (P) allows flexibility beyond the requirements of the C-O zone, acknowledging the special land use characteristics for hospitals.

5.0 ENVIRONMENTAL IMPACT ANALYSIS

The following sections analyze the potential environmental impacts that may occur as a result of project implementation. The environmental issues subject to detailed analysis in the following sections include those that were identified by the City through scoping analysis (see Appendix A) and subsequent preliminary project review as potentially significant.

Eleven environmental issues are addressed in the following sections, and the issues of land use, aesthetics, and traffic are addressed first, followed by the remaining issues in alphabetical order. The issues of cultural resources, biological resources, agricultural and forestry resources, housing and population, mineral resources, and public services were determined to be less than significant pursuant to the initial study and are discussed briefly in Chapter 9.0. The environmental issues addressed in Section 5.0, in sequential order, include:

- Land Use
- Aesthetics
- Transportation and Circulation
- Air Quality
- Greenhouse Gas
- Geology and Soils
- Hazards and Risks of Upset
- Hydrology and Water Quality
- Noise
- Paleontological Resources
- Public Utilities

Each issue analysis 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, 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 direct and indirect impacts in Chapter 5.0 are evaluated in relation to applicable City, state, and federal standards.

5.1 Land Use

This section addresses the consistency of the project with the development regulations of the City of Chula Vista's General Plan, Master Plan Communities Subarea, Zoning Ordinance, and Multiple Species Conservation Program (MSCP). The determination of significance regarding any inconsistency with development regulations or plan policies is evaluated in terms of the potential for the inconsistency to result in the creation of secondary environmental impacts considered significant under the California Environmental Quality Act (CEQA). The compatibility of the project with surrounding land uses is also discussed.

5.1.1 Existing Conditions

As it relates to land use, the project includes requests for the following entitlements:

- Approval of a Conditional Use Permit (CUP-15-0025) to allow an "unclassified use" (hospital) to be constructed within the Administrative and Professional Office (CO) zone.

- Approval of a Design Review (DR15-030) to allow for the construction of the proposed hospital tower.

- Approval of a Major Planning Application (MPA-15-0021) for a precise plan to allow a height that is in excess of the maximum allowed height of 45 feet in the C-O-P zone.

5.1.1.1 Existing and On-site and Surrounding Land Uses

The project footprint is located on 2.47 acres of the Sharp Chula Vista Medical Center. As described in Chapter 4.0, Environmental Setting, the project area was previously graded and while it is not currently developed with any occupiable structures; it contains a loading dock and trash enclosures as well as a retaining wall. The footprint is surrounded by existing development. There are multiple existing buildings; Sharp Chula Vista Medical Center to the southwest, Birch Patrick Skilled Nursing Facility to the south, a loop road to the north/northeast, medical office buildings to the south; and one new parking structure to the southeast. Beyond the immediate setting is a mixture of uses that include: care facilities; residences; apartments; the Veterans Home of California, located to the northwest; single-family residences to the northeast; doctors' offices and apartments to the southeast; single-family residences to the south; a cardiology center/pharmacy/doctors' offices to the southwest; and a County mental health facility to the west.

5.1.1.2 Regulatory Framework

Vison 2020 is the fundamental policy document of the City of Chula Vista. By providing a basis for rational decision-making, this document provides the framework for civic 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 Chula Vista Municipal Code 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.

City of Chula Vista General Plan

The City's General Plan, known as Vision 2020, was adopted on December 13, 2005 and most recently amended in March 2015. Vision 2020 is the long-range planning implementation tool that focuses on the City's land use development and is divided into six elements: (1) Land Use and Transportation, (2) Economic Development, (3) Public Facilities and Services, (4) Growth Management, (5) Environmental, and (6) Housing.

The Land Use and Transportation Element in the City's General Plan intends to provide a link between land use designations, intensity of development, and mobility. The City's differing neighborhoods, districts, and open space networks are framed by its circulation network and defined by the Bayfront, Northwest, Southwest, and East Planning Areas. The proposed 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.

Within the East Planning Area there are six master planned communities that provide a variety of services consisting of housing; office parks; local and regional commercial centers; schools; hospitals, and churches. Chula Vista's master planned communities include (1) Sunbow, (2) Rancho del Rey, (3) EastLake, (4) Rolling Hills Ranch, (5) San Miguel Ranch, and (6) Otay Ranch. Each of the master planned communities has an adopted General Development Plan (GDP) that is implemented by the Sectional Planning Area (SPA) Plans. The SPA provides zoning regulations and design standards. Many of the Master Plan Communities Subareas are already approved and constructed.

The project site is located in the CO Zone and is surrounded by the Sunbow Master Planned Community. Within each planning area there are a variety of activity centers that provide City-serving land uses that unite the community. The activity centers are generally located within a high concentration of jobs, shopping, and local/regional

services. The Sharp Chula Vista Medical Center is located within Activity Center 7. The medical center campus is categorized as an Educational and Institutional land use.

The following paragraphs summarize the City of Chula Vista's General Plan chapters that support the project in terms of Land Use themes, objectives, and policies.

CHAPTER 4 – VISION AND THEMES

Theme 6 - High Quality Community Services

All areas of the City of Chula Vista enjoy an equitable balance of services and infrastructure, recognizing their respective and unique situations. The community encourages integrated health and human services that are provided with dignity, are conveniently and equitably located, and are recognized as community centers that sustain families and residents.

CHAPTER 5 – LAND USE AND TRANSPORTATION ELEMENT

The Land Use and Transportation Element (LUT) describes the land use plan and circulation pattern for the City's future growth. The following objective and policy are relevant to the proposed project:

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.

CHAPTER 6 – ECONOMIC DEVELOPMENT ELEMENT

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

Objective ED 2

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

Policy

ED 2.3: 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.

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

CHAPTER 8 – PUBLIC FACILITIES AND SERVICES ELEMENT

The Public Facilities and Services 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 of Chula Vista over the past two decades has caused an increased demand for medical services. The following objective and policy are relevant to the proposed project:

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

PFS 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.

Land Use Designation

Land use designations are for general planning purposes from which the City is mapped into six different land use categories. The land use designation for the project site is Public and Quasi Public (PQ), which is intended for schools, churches, hospitals, civic center, fire stations, libraries, landfills, public utilities, and other similar public uses. This land use category is not expressly limited by density or floor area ratios.

Vision 2020 identifies buildings that are four to seven stories as mid-rise buildings and buildings of eight or more stories as high-rise buildings. At seven stories, the proposed Ocean View Tower would be a mid-rise building.

City of Chula Vista Municipal Code

The City of Chula Vista Municipal Code (CVMC) is the primary tool for implementing the City's General Plan and is outlined within Title 19 Planning and Zoning. The CVMC details regulations that control land use, density, the location, height, bulk, appearance, dimension, open space, and appearance of structures. The project site is zoned Administrative and Professional Office (C-O) as defined in Chapter 19.30 of the CVMC. The purpose of the C-O zone is described by the following:

- Provide appropriate locations where professional and administrative office zones may be established, maintained and protected.

- Promote a quiet and dignified environment for business administration, professional and government activities, free from the congestion and traffic of the usual retail business district.

- Permit office buildings and medical and financial facilities; appropriate commercial facilities primarily for the service of the occupants of the district are permitted subject to special controls.

- The intensity of development of such a district is intended to reflect its environmental setting with building height and coverage generally similar to and harmonious with those of neighboring districts.

According to section 19.30.040 of the CVMC an "unclassified use" is permitted in the C-O zone once the Planning Commission has approved a ***conditional use permit***. Unclassified uses are further defined under 19.54.020 of the CVMC as the following:

- Hospitals, including, but not limited to, emergency, general, convalescent, rest homes, nursing homes (for the aged, crippled, and mentally retarded of all ages), psychiatric, etc.

PRECISE PLAN

The site has been used as a medical center since the 1970s and was rezoned from residential (R1H) to a C-O-P zone in 1990. The C-O zone was deemed compatible with the existing use, but has a maximum height requirement of 45 feet. Therefore, a P modification was added to the site's zoning designation to allow flexibility beyond the requirements of the C-O zone, acknowledging the special land use characteristics for hospitals. A Precise Plan is a special zoning implementation tool that is applied to a specific project upon City Council approval. CVMC 19.56.040 and 19.56.041 states the following:

- The purpose of the P precise plan modifying district is to allow diversification in the spatial relationship of land uses, density, buildings, structures, landscaping and open spaces, as well as ***design review*** of architecture and signs through the adoption of specific conditions of approval for development of property in the City.

- The boundaries of the P district, the location, height, size and setbacks of buildings or structures, open spaces, signs and densities indicated on the precise plan shall take precedence over the otherwise applicable regulations of the underlying zone.

- The property or area to which the P modifying district is applied is an area adjacent and contiguous to a zone allowing different land uses, and the development of a precise plan will allow the area so designated to coexist between land usages which might otherwise prove incompatible.

As indicated in the second bullet above, the P district takes precedence over the underlying zone (C-O) height limitation of 45 feet. Therefore, the proposed seven-story, 110 feet 9 inches (120 feet when including the elevator enclosure) Ocean View Tower is requested to be considered by City Council through the approval of the Precise Plan.

City of Chula Vista Multiple Species Conservation Program Subarea Plan

The City of Chula Vista'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.

5.1.2 Thresholds of Significance

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

1. Physically divide or adversely affect the community character of an established community.

2. Conflict with any applicable land use plan, policy, or regulation or an agency with jurisdiction over the Proposed Project adopted for the purpose of avoiding or mitigating an environmental effect.

3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

5.1.3 Impacts

Threshold 1: Physically Divide an Established Community

Community character is defined by the natural and built features that identify the environment. The proposed Ocean View Tower is located within an existing hospital campus setting. Within the immediate proximity to the site is the main Sharp Hospital (southwest), Patrick Birch nursing facility (south), a parking garage (southeast), and a

loop road (north, northeast). The campus is surrounded by a mixture of uses that are primarily care facilities and residential. More specifically, apartments and the Veterans Home of California, Chula Vista are located to the northwest, single-family residences to the northeast, doctor's offices and apartments to the southeast, single-family residences to the south, a cardiology center/pharmacy/doctor's offices to the southwest, and a County mental health facility to the west. The proposed seven-story hospital would not physically divide these surrounding established neighborhoods because the project does not involve the introduction of new infrastructure such as major roadways to the area, which would interfere with the connectivity of the surrounding neighborhoods. No impact would occur.

The community character or visual quality aspects of the project are addressed in Section 5.2, Aesthetics.

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

The Land Use and Transportation Element of Chula Vista Vison 2020 identifies the Sharp Hospital Medical Complex as a Community Activity Center. One of the defining features of Community Activity Centers is that they are areas with a high concentration of jobs. The proposed Ocean View Tower would increase an already high concentration of jobs for this Community Activity Center and would therefore be consistent.

The proposed project is subject to the PQ land use designation in the City's General Plan, and the East Planning Area, Master Planned Communities Subarea under the Land Use and Transportation Element. Zoning for the Ocean View Tower is Administrative and Professional Office (C-O) and includes a P modifying district, which indicates that the project is subject to Precise Plan. The Precise Plan is specific to the project and would allow the proposed hospital tower to reach a height of 110 feet 9 inches (120 feet including the elevator enclosure), which exceeds the maximum allowable height under the standard C-O zone. Upon approval of the Precise Plan, the project would be consistent with the PQ land use designation and C-O zoning.

In conclusion, the proposed project would not conflict with applicable land use plans, policies, or zoning regulations.

Threshold 3: Affecting Applicable Habitat Conservation Plan

The proposed Ocean View Tower is not subject to the MSCP because the property is not located within or adjacent to any Preserve Areas. The project footprint 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, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan, including the MSCP and would have a less than significant impact on the MSCP.

5.1.4 Level of Significance Prior to Mitigation

The proposed land use, design, and layout for the project would be compatible with the rest of the medical center. There are residential neighborhoods in the project vicinity; however, the project would not physically divide these neighborhoods. The project would be consistent with the City's General Plan and Chula Vista Municipal Code. As required, the project includes a CUP and design review 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.

5.1.5 Mitigation Measures

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

5.2 Aesthetics

This section presents an analysis of impacts of the proposed project with respect to aesthetic resources, specifically as they relate to landform alteration and visual quality. Visual simulations of the new Ocean View Tower were prepared to illustrate the appearance of the project from public vantage points.

5.2.1 Existing Conditions

5.2.1.1 Existing Visual Character

The proposed project would be located on 2.47 acres of the existing Sharp Chula Vista Medical Center, which includes the hospital, medical office buildings, parking structures, and surface lots and ancillary facilities. The medical center is situated on the top of a mesa, with descending slopes, including a manufactured hillside to the northeast with vegetated slopes. The existing elevation is approximately 435 feet above mean sea level (see Figure 4-3). The Ocean View Tower site has been previously graded and is currently a paved area, with parking and loading areas. Landscaping and the newly constructed loop road border the Ocean View Tower site to the north and northeast.

Surrounding the medical center is a mixture of uses that include care facilities and residential in the form of multi-family (one-, two- and three-stories) and single-family homes. The Veterans Home of California, Chula Vista and apartments are located to the northwest; single-family residences to the northeast; apartments to the southeast; single-family residences to the south, a cardiology center/pharmacy/doctor's offices to the southwest, and a County mental health facility to the west. The adjacent single-family residential is located downslope at approximately 375 feet above mean sea level. The development to the northwest, west, and south has a more gradual descending slope from the medical center.

5.2.1.2 Regulatory Plans and Policies

City of Chula Vista General Plan

The regulation of visual resources and quality is primarily found within the Land Use Element of the General Plan. Scenic resources within the City include both natural and built features and resources. Within the project area there are no designated natural scenic resources and no designated City entryways. Telegraph Canyon Road, located half a mile to the north, is a City-designated Scenic Roadway and Gateway.

5.2.2 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to 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. Substantially degrade the existing visual character or quality of the site and its surroundings; or
4. Create a new source of light or glare which would adversely affect day or nighttime views in the area.

5.2.3 Impacts

Threshold 1: Scenic Vista

The project site is located on a mesa with an existing medical center as described above. No scenic vistas occur within the immediate project area. While there are prominent landforms to the east, the project would not alter views from these areas, as the project area has been developed and does not contain scenic vistas. Further, Ocean View Tower would not block any public vantage points of the Pacific Ocean. Therefore, the project would have a less than significant impact to scenic vistas.

Threshold 2: Scenic Resources

As indicated under the existing conditions, no state-designated scenic highways are present in the proposed project vicinity. However, Telegraph Canyon Road, located approximately a half mile to the north of the project site, is a City-designated Scenic Roadway and Gateway. This roadway is located at a lower elevation than the project site. Immediately to the north, the views from Telegraph Canyon Road to the project area are screened by topography and existing development. Motorists and pedestrians heading westbound on Telegraph Canyon Road have intermittent views of the project area but those views currently take in the existing medical center and would not be substantially altered by the addition of the Ocean View Tower. Therefore, views from the scenic roadway would be generally the same as current views with the existing buildings and development on the mesa.

With respect to the site, there are no scenic resources (e.g. trees, rock outcroppings, and historic buildings). The site currently yields views of the coastline and Pacific Ocean. The proposed Ocean View Tower is oriented in a manner to take advantage of these views in public areas within the Ocean View Tower. Broad windows would face the northwest, with seating for visitors and patients. Therefore, no significant impacts to scenic resources would occur as a result of the project.

Threshold 3: Visual Character

The Ocean View Tower would be 110 feet 9 inches in height within seven stories. The elevator enclosure would be at a height of 120 feet. While the tower would be taller than the existing structures at 95 feet and five floors for the hospital and 70 feet and five levels for the new parking structure (102 feet to the top of the elevator tower), the exterior would be consistent with the existing buildings on-site. The Ocean View Tower site has been previously graded and would require minimum earthwork to prepare the site for the proposed building. Simulations of the Ocean View Tower were prepared from several different vantage points to illustrate the visual effect of the project from the surrounding area. Figure 5.2-1 provides a key map showing the locations that the simulations were taken.

The first simulation, Figure 5.2-2, is from Caminito Cumbres within the single-family residential neighborhood to the northeast. As shown in the photograph of the existing view, the east tower is clearly visible in the background when looking west toward the medical center from Caminito Cumbres, with the graded and newly revegetated slope associated with construction of the loop road visible in the foreground. The simulation shows the proposed Ocean View Tower which would be placed between the existing east tower and the viewer. Accordingly, the Ocean View Tower would appear to be closer and larger as compared to the existing east tower. However, the views from Caminito Cumbres would not change substantially as the view for both the existing and proposed condition is primarily that of multi-story hospital structures. The current views of the existing building would be replaced by views of another building. In addition, the landscaped slope in the foreground would provide visual relief for the viewer.

Figure 5.2-3 is from the same residential subdivision as the first, but taken from farther away. As shown, the existing hospital is visible in the distant background when viewed from the intersection of Paseo Ladera and Mandeville Drive; with single-family residences visible in the foreground. As with the first simulation (see Figure 5.2-1), the Ocean View Tower would be constructed between the existing East Tower building and the viewer; accordingly, the simulation shows the Ocean View Tower appearing to be closer and larger as compared to the existing condition. However, hospital buildings are visible in both the existing and proposed condition; views of the existing building would simply be replaced by views of the proposed Ocean View Tower.

Figure 5.2-4 is a view for a driver travelling uphill toward the hospital on Medical Center Court from the intersection at Medical Center Drive. Currently in the foreground is the monument sign for the Veterans Home of Chula Vista and Sharp's 150-space parking structure. The five-story west tower is partially visible in the background. As shown in the simulated view, only the gently rounded northern face of the Ocean View Tower would be visible due to the intervening topography, trees, and the existing east and west towers of the medical center.

Source:Hensel Phelps

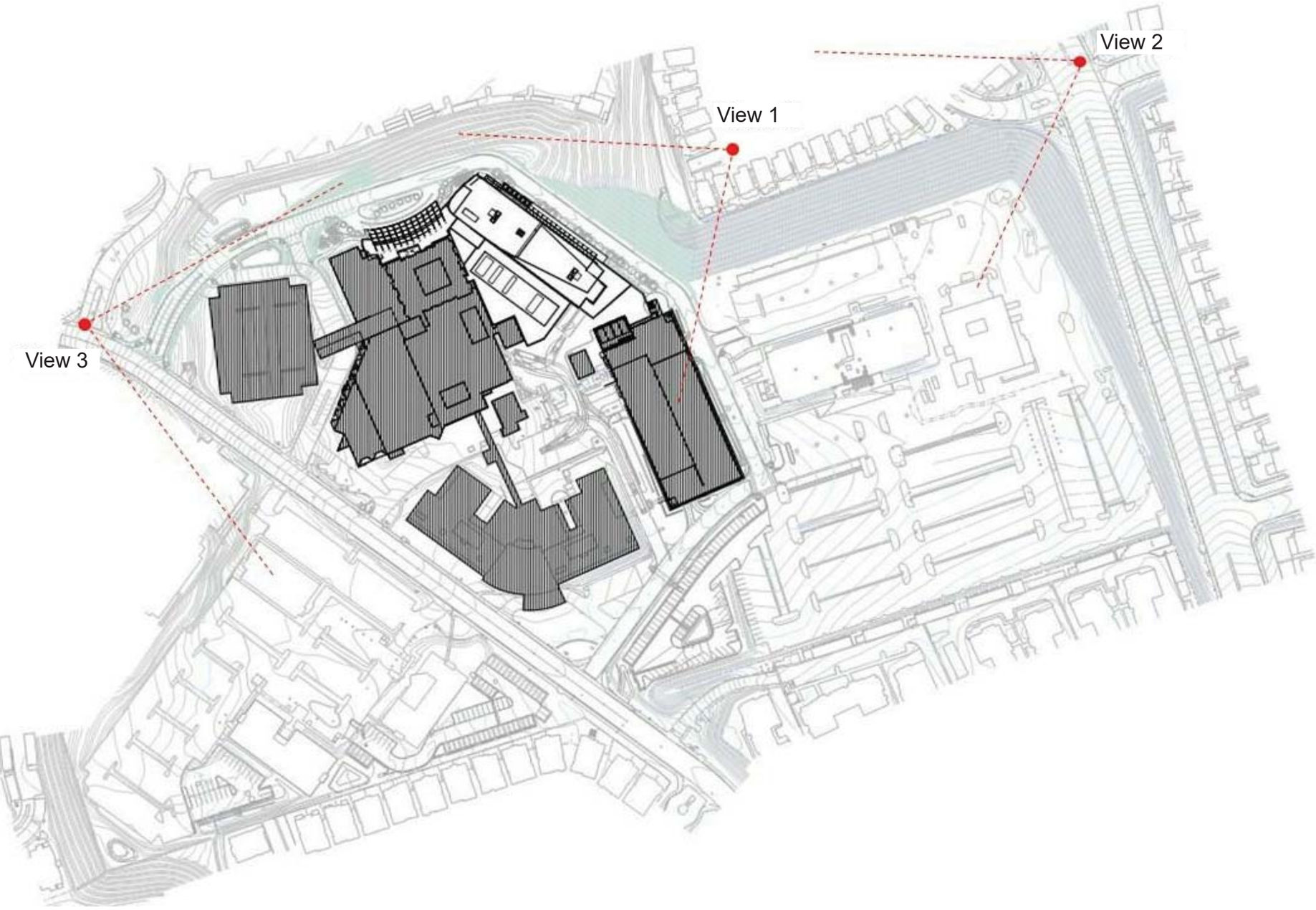

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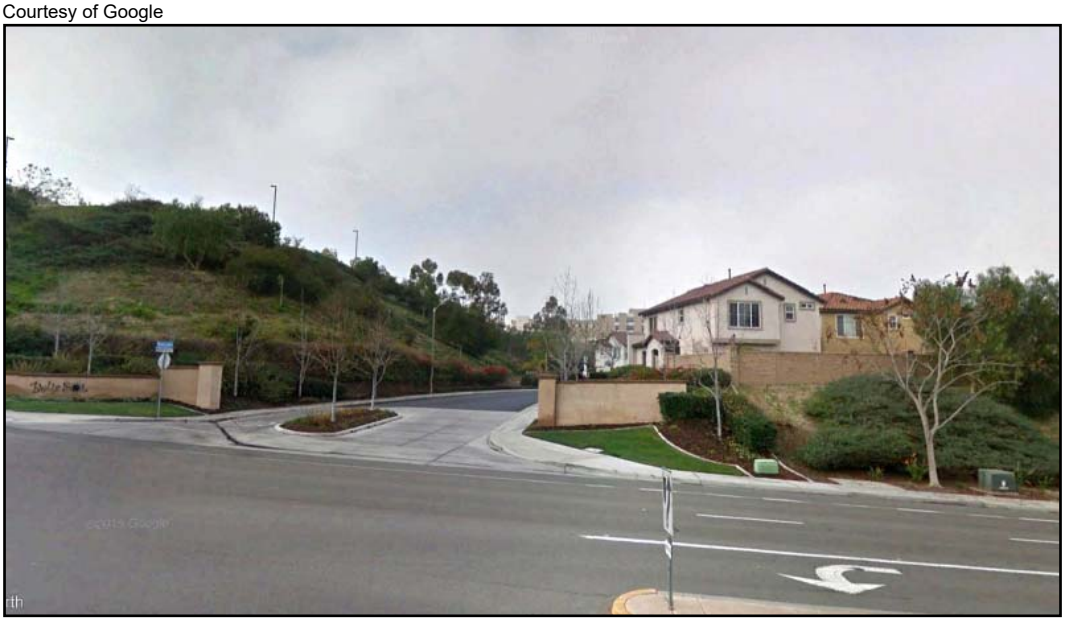
FIGURE 5.2-1
Visual Simulation Key Map

View of Existing East Tower from Caminito Cumbres Facing West

Simulation of OVT from Caminito Cumbres Facing West

FIGURE 5.2-2
View of OVT from Caminito Cumbres Facing West

Courtesy of Google



View of Existing East Tower from Intersection of
Paseo Ladera and Mandeville Drive Facing West

Simulation of ~~Existing East Tower~~ OVT from Intersection of
Paseo Ladera and Mandeville Drive Facing West

FIGURE 5.2-3
View of OVT from Intersection of
Paseo Ladera and Mandeville Drive Facing West

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Courtesy of Google

View of Existing Medical Center Looking East from Medical Center Court

Simulation of OVT Looking East from Medical Center Court

FIGURE 5.2-4
View of OVT Looking East from Medical Center Court

As shown in all three simulations, the proposed Ocean View Tower, while slightly taller than the two existing towers, would simply be replacing views of existing hospital buildings with views of another hospital building from most vantage points. Further, the Ocean View Tower would be visually similar and architecturally compatible with the existing buildings. Therefore, the proposed project would have a less than significant impact on the character of the site and the surrounding area.

A shadow study (Figure 5.2-5) was prepared for the proposed project to review and illustrate the shadowing effect that would occur from the project. Using the proposed height of 110 feet 9 inches for the building (and 120 feet for the elevator tower), the shadowing effect was illustrated for both the summer and winter solstice (June 21 and December 21, respectively), as well as the equinox which represents the mid-point between the two solstices (around March 20 and September 23). The study shows that the shadow effect of the proposed Ocean View Tower would be minimal during the times of the summer solstice and the equinox. Leading up to and after the winter solstice, the new building would result in shadowing to the northwest, over a small portion of the existing Veterans Administration buildings during the morning hours. This shadowing would be for both a short period of time during the morning hours, as well as during a relatively small number of days (approximately 15) before and after the winter solstice.

During this same time period, within the afternoon hours from approximately 2:20 p.m. to sunset (4:47 p.m. on winter solstice), the study illustrated that a shadow effect would occur on the residential properties located to the northeast. Similar to the shadowing during the morning, this shadow effect would occur for a short period of time during the afternoon hours and over a relatively small number of days (approximately 15) before and after the winter solstice. Furthermore, as the sun sets in the west, the obstruction of the sun by the existing buildings immediately to the east would occur as it does under the present condition. It should be noted that there are existing hospital buildings in almost the same location as the proposed Ocean View Tower, albeit they are 35 feet shorter.

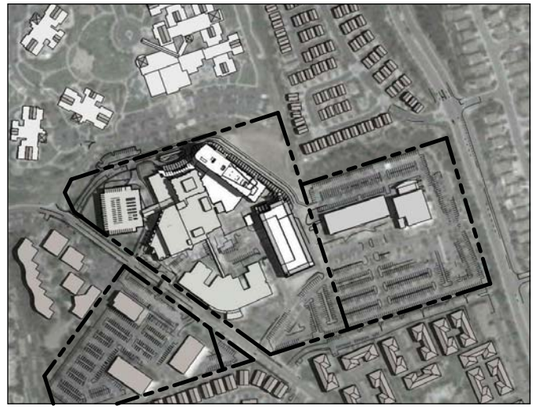
In summary, several of the residences nearest the Ocean View Tower would receive approximately 70 hours of shadow per year (0.008 percent of the 8,760 total hours in a year), which would not be considered significant. No significant impacts would occur relative to shading or shadowing of adjacent land uses.

Threshold 4: Light and Glare

The proposed project would include new lighting sources for both construction and operation. General construction practices would be limited 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, consistent with the City's construction noise ordinance.

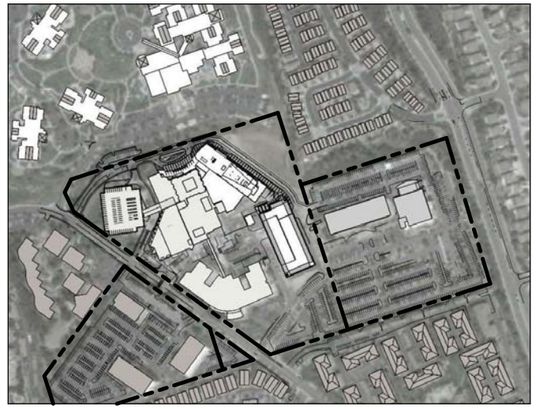
Source:Hensel Phelps

SUMMER SOLSTICE - 9AM NO SHADING



NEW & EXISTING BUILDINGS

SUMMER SOLSTICE - 12PM NO SHADING

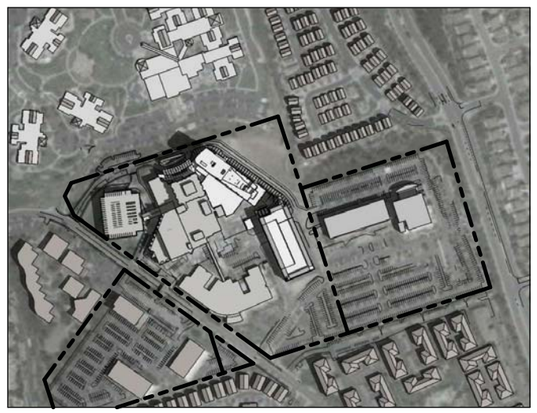


NEW & EXISTING BUILDINGS

SUMMER SOLSTICE - 3PM NO SHADING

NEW & EXISTING BUILDINGS

EQUINOX - 9AM NO SHADING



NEW & EXISTING BUILDINGS

EQUINOX - 12PM NO SHADING

NEW & EXISTING BUILDINGS

EQUINOX - 3PM NO SHADING

NEW & EXISTING BUILDINGS

WINTER SOLSTICE - 9AM NO SHADING

NEW & EXISTING BUILDINGS

WINTER SOLSTICE - 12PM NO SHADING

NEW & EXISTING BUILDINGS

WINTER SOLSTICE - 3PM SHADING, PARTIAL SHADING: APPROX. 12 RESIDENCES

NEW & EXISTING BUILDINGS

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FIGURE 5.2-5
Shadow Studies

During construction, lighting for security purposes would be similar or less than the on-site lighting associated with the existing surrounding buildings and parking garage. With respect to the construction of the building, all lighting would be limited to nighttime safety lighting. Lighting would be oriented downward with shielding and away from the perimeter road to ensure roadway lighting is safe for motorists. This would also ensure lighting does not spill to the northeast, toward the residences located at lower elevations.

The proposed Ocean View Tower has been designed with a combination of solid surfaces and windows to allow for natural light to enter both open public areas and patient rooms. Exterior surfaces and windows while they have the potential to result in glare to the east during morning hours, would be limited due to the elevation differential (approximately 60 feet) with the surrounding residential development, as well as use of building and windows materials that are absorptive of light or made of anti-reflective materials. This included glazing techniques on both solid walls and windows, and use of concrete which is non-reflective.

Light sources include indoor lighting, outdoor lighting, and vehicle headlights. Indoor lighting would be reduced in the evening associated with normal nighttime activities. The western end of the proposed building primarily faces the direction of the existing hospital and on-site medical buildings and the ~~VA hospital~~Veteran's Home of California located at a slightly lower elevation (Figure 5.2-6). This portion of the building would be comprised of open floor waiting areas with floor to ceiling windows. During nighttime hours this area would be dimmed to emit a soft glow consistent with the light emissions that are present from the existing medical center. The exterior of the eastern elevation is not intentionally lit; therefore, the main sources of light would come from the Sharp sign and the lights coming from the interiors of the bed floors (Figure 5.2-7). Both the bed floor interior lighting and the Sharp sign would utilize LED lighting which would be intentionally dimmed at night. In addition, the glass would be tinted to prevent glare and bird strikes. Lastly, the bed floor windows (floors 3 through 6) would have shades that are typically drawn at night.

Exterior lighting would be similar to existing lighting of other on-site buildings and would be consistent with the lighting requirements of the City's Zoning Ordinance for placement and design. The existing loop road would not be changed by the proposed project, and therefore, the vehicular traffic would be routed in a same manner not altering the effects of vehicle headlights from the proposed project. Impacts from lighting and glare would be less than significant.

Source:Hensel Phelps

RECON

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FIGURE 5.2-6
Nighttime Lighting shown on Northern Face of OVT

Source:Hensel Phelps

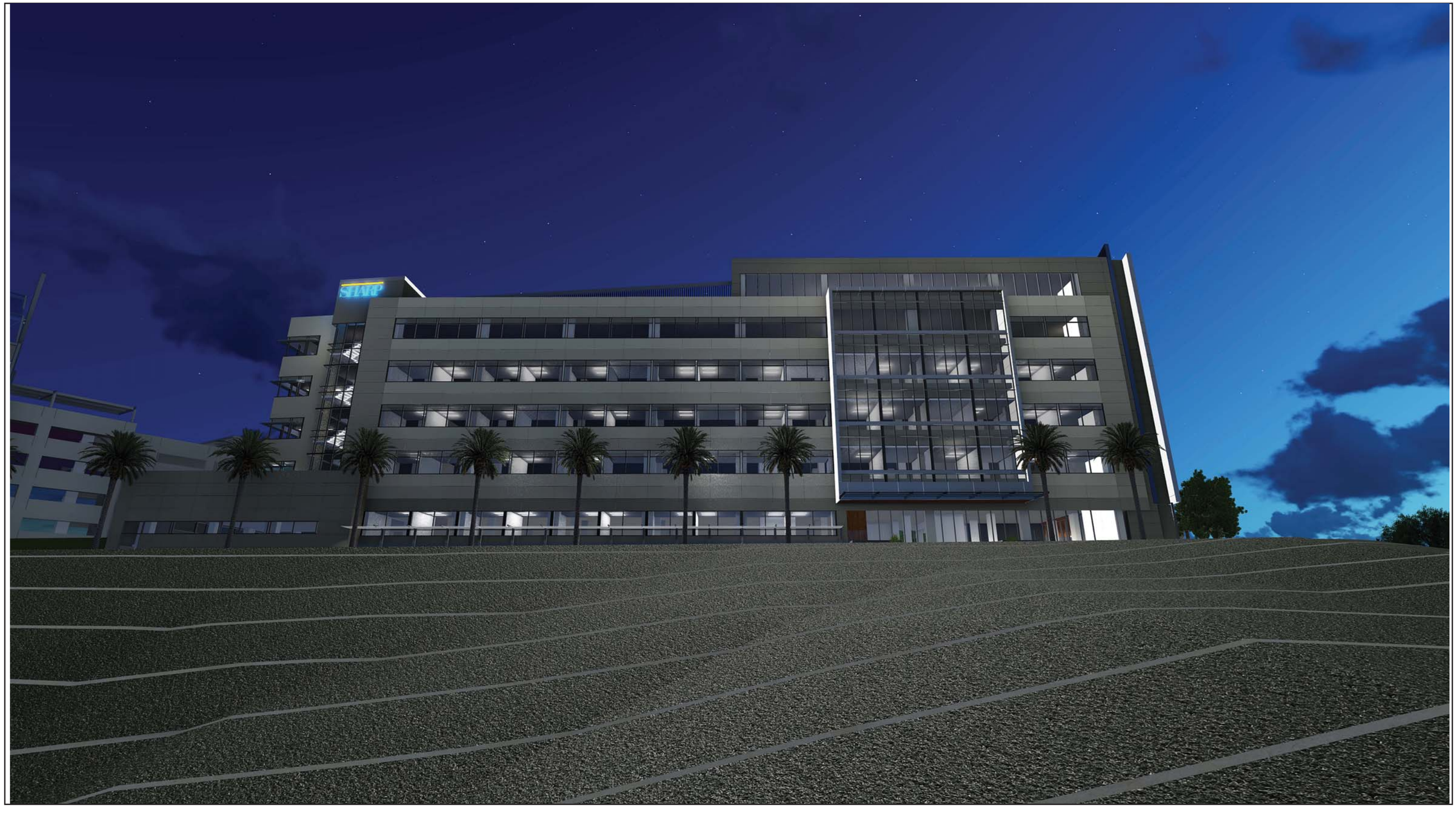

FIGURE 5.2-7
Nighttime Lighting shown on Eastern Face of OVT

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5.2.4 Level of Significance Prior to Mitigation

Threshold 1: Scenic Vista

The project site is located on a mesa with an existing medical center and no designated scenic vistas occur within the immediate project area. The addition of the proposed hospital building would not alter the views from prominent landforms east of the project site, as the existing development on the mesa and in the surrounding area previously altered the views from these locations; nor would the project block any views westward of the Pacific Ocean from any public vantage points. Therefore, impacts would be less than significant to scenic vistas.

Threshold 2: Scenic Resources

No state-designated scenic highways exist in the proposed project vicinity; nor are there any scenic resources within the project area. However, Telegraph Canyon Road is a City-designated Scenic Roadway and Gateway. The roadway is located at a lower elevation than the project site, and views from Telegraph Canyon Road to the project area are mostly blocked by existing development. Motorists and pedestrians heading westbound on Telegraph Canyon Road from neighborhoods east of the project site would have intermittent views of the project area. Those views currently are of the existing medical center and would not change substantially with the new Ocean View Tower. Therefore, impacts would be less than significant to scenic resources.

Threshold 3: Visual Character

As demonstrated in the visual simulations, the proposed Ocean View Tower, while slightly taller than the two existing towers, would be visually similar and architecturally compatible with the existing hospital buildings. Further, the proposed Ocean View Tower would simply replace views of existing medical center buildings with views of another building; therefore, impacts relative to the site and surrounding area would be less than significant.

A shadow study illustrated that the proposed Ocean View Tower would have a minimal shadow effect during the times of the summer solstice and the equinox. Leading up to and after the winter solstice, the new building would result in shadowing to the northwest, over a small portion of the existing ~~VA~~ Veteran's Home of California Building buildings during the morning hours, and during the afternoon hours over residential properties to the northeast (approximately 20 houses). The new tower would be approximately 35 feet taller than the existing hospital and most of the residences are already being affected by both the existing hospital and other neighboring houses, as depicted in the shadow study (see Figure 5.2-5). The shadow effect would occur for a short period of time during both the morning and afternoon hours and over a relatively small number of days (approximately 0.008 percent of the total number of hours in a

year). Therefore, the proposed project would have a less than significant impact on the character of the site and surrounding area.

Threshold 4: Light and Glare

Lighting for the proposed project would be similar to the lighting that is present from the existing medical center. Construction lighting would be limited to nighttime safety lighting and oriented downward with shielding, away from the perimeter road and the residences located at lower elevations to the northeast. The proposed Ocean View Tower has been designed with a combination of solid surfaces. Glare to the east and northeast from exterior surfaces and windows would be limited due to the elevation differential (approximately 60 feet) with the surrounding residential development, as well as use of building and windows materials that are absorptive of light or made of anti-reflective materials. Indoor lighting would be dimmed during nighttime hours emitting a soft glow consistent with the light emissions that are present from the existing hospital and medical center. Exterior lighting would be similar to existing lighting of other on-site buildings. Impacts from lighting and glare would be less than significant.

5.2.5 Mitigation Measures

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

5.3 Transportation and Circulation

This section addresses the potential transportation and circulation effects that could result from implementation of the proposed project. A Traffic Impact Analysis (TIA) was prepared for the proposed project by Linscott, Law & Greenspan (LLG) (March 2016) and is included in Appendix B. The analysis in this section addresses and considers City of Chula Vista traffic impact guidance in evaluating the potential for direct and/or cumulative impacts in the existing conditions, near-term conditions, and long-term conditions. Each of these three analyses includes a "without project" scenario and a "with project" scenario to determine the change in conditions due to the project. In addition, this section includes a construction traffic analysis to determine potential traffic impacts during construction.

5.3.1 Existing Conditions

5.3.1.1 Existing Transportation and Circulation

Study Area

The transportation study area was determined based on City of Chula Vista standards and the San Diego Traffic Engineers Council/Institute of Transportation Engineers (SANTEC/ITE) Regional Guidelines for Traffic Impact Studies. The study area is shown in Figure 5.3-1 and the facilities analyzed are listed below.

INTERSECTIONS

1. Telegraph Canyon Road/Interstate 805 (I-805) Southbound Ramps
2. Telegraph Canyon Road/I-805 Northbound Ramps
3. Telegraph Canyon Road/Oleander Avenue
4. Telegraph Canyon Road/Medical Center Drive
5. Telegraph Canyon Road/Heritage Road
6. Medical Center Court/Medical Center Drive
7. Medical Center Court/Loop Road Access West
8. Medical Center Court/Loop Road Access East
9. Medical Center Court/Main Hospital Driveway
10. E. Palomar Street/Medical Center Drive
11. E. Palomar Street/Medical Center Court
12. E. Palomar Street/Heritage Road
13. Olympic Parkway/I-805 Southbound Ramps
14. Olympic Parkway/I-805 Northbound Ramps
15. Olympic Parkway/Oleander Avenue
16. Olympic Parkway/Brandywine Avenue
17. Olympic Parkway/Heritage Road

Map Source: Linscott, Law & Greenspan Engineers

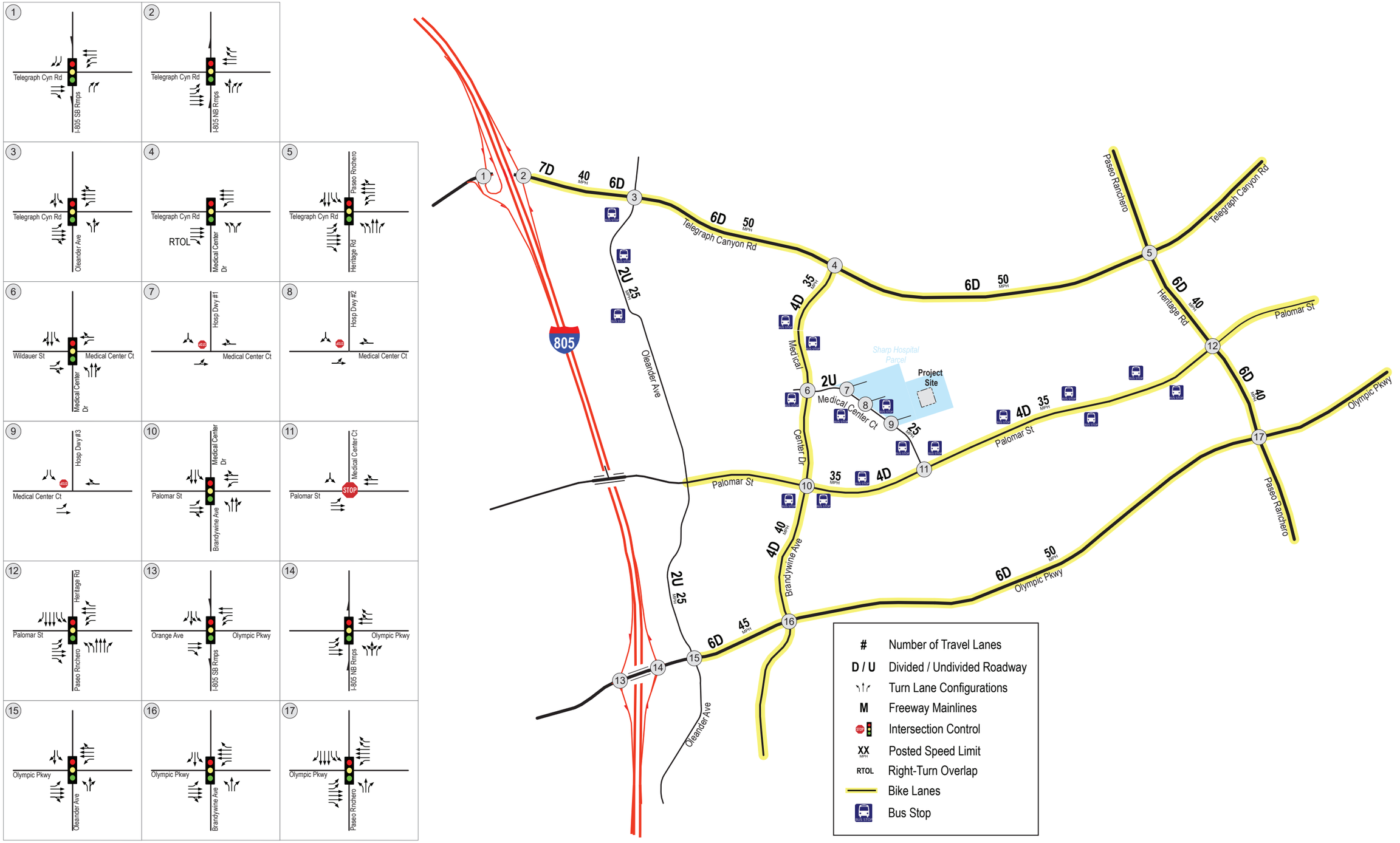

FIGURE 5.3-1
Project Study Area and Existing Network

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STREET SEGMENTS

- Telegraph Canyon Road
  - Halecrest Drive to Oleander Avenue
  - Oleander Avenue to Medical Center Drive
  - Medical Center Drive to Heritage Road

- Medical Center Drive
  - Telegraph Canyon Road to Medical Center Drive
  - Medical Center Drive to Medical Center Court
  - Medical Center Court to Heritage Road

- Medical Center Court
  - East of Medical Center Drive
  - North of E. Palomar Street

- E. Palomar Street
  - Oleander Avenue to Medical Center Drive
  - Medical Center Drive to Medical Center Court
  - Medical Center Court to Heritage Road

- Olympic Parkway
  - I-805 Ramps to Oleander Avenue
  - Oleander Avenue to Brandywine Avenue
  - Brandywine Avenue to Heritage Road

FREEWAY RAMP METERS

- Telegraph Canyon Road/I-805 NB On-Ramp (AM peak hour only)
- Olympic Parkway/I-805 NB On-Ramp (AM peak hour only)

FREEWAY MAINLINE SEGMENTS

- I-805: North of Telegraph Canyon Road
- I-805: South of Olympic Parkway

Existing Street Network

Figure 5.3–1 depicts the existing conditions for the study area street segments and freeway segments within the study area. The streets within the study area are described below.

Telegraph Canyon Road is classified as a six-lane Prime Arterial in the City of Chula Vista General Plan (2005). Currently, Telegraph Canyon Road 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 50 mph.

Medical Center Drive is classified as a four-lane Class I Collector in the City of Chula Vista General Plan (2005). Currently, Medical Center Drive is constructed as a four-lane divided roadway. Bike lanes exist on both sides of the street and curbside parking is prohibited. The posted speed limit is 35 miles per hour (mph). Medical Center Drive becomes Brandywine Avenue south of E. Palomar Street.

Medical Center Court is an unclassified two-lane undivided roadway in the City of Chula Vista General Plan (2005), but the City Traffic Engineer identifies that this roadway is equivalent of a Class II Collector. Bus stops exist on both sides of the street and curbside parking is prohibited. The posted speed limit is 25 mph. Medical Center Court provides primary access to Sharp Medical Hospital.

E. Palomar Street is classified as a four-lane Major Road in the City of Chula Vista General Plan (2005). Currently, E. Palomar Street is constructed as a four-lane divided roadway. On-street parking is prohibited. The posted speed limit is 35 mph and bike lanes are provided.

Olympic Parkway is classified as a six-lane Prime Arterial in the City of Chula Vista General Plan (2005). Olympic Parkway is currently constructed as a six-lane divided roadway with bike lanes on both sides of the roadway. Bus stops are not provided along the segment. The posted speed limit is 45 mph from Oleander Avenue to Brandywine Avenue and 50 mph east of Brandywine Avenue.

Existing Traffic Volumes and Levels of Service

LEVEL OF SERVICE ANALYSIS BACKGROUND

The City utilizes a traffic level of service (LOS) analysis that assigns traffic operation levels from LOS A to LOS F, where LOS A represents free-flowing traffic and LOS F represents long traffic delays. LOS is determined for each roadway facility type based on a number of criteria in accordance with the 2010 Highway Capacity Manual, as briefly explained below. Refer to Appendix B, Chapter 4 for additional details.

Intersection operations are determined based on seconds of delay per vehicle, and unacceptable levels (LOS E or F) are triggered at delays over 55 seconds at signalized intersections and at 35 seconds at unsignalized intersections.

Street segment operations are based on the volume of vehicles on the roadway to the capacity of the roadway, and street segment LOS D or worse occurs when the volume-to-capacity ratio (V/C) exceeds 0.9.

Similar to intersections, ramp meter delay operation analysis is based on delay. Ramp meter delays are measured in minutes, and delays over 15 minutes are considered excessive.

Freeway mainline LOS analysis is based on V/C, where the V/C correlates to a LOS A to LOS F(3) level. Unacceptable freeway LOS E is triggered when the V/C ratio exceeds 1, which is when the vehicle volume exceeds the freeway capacity.

VOLUMES

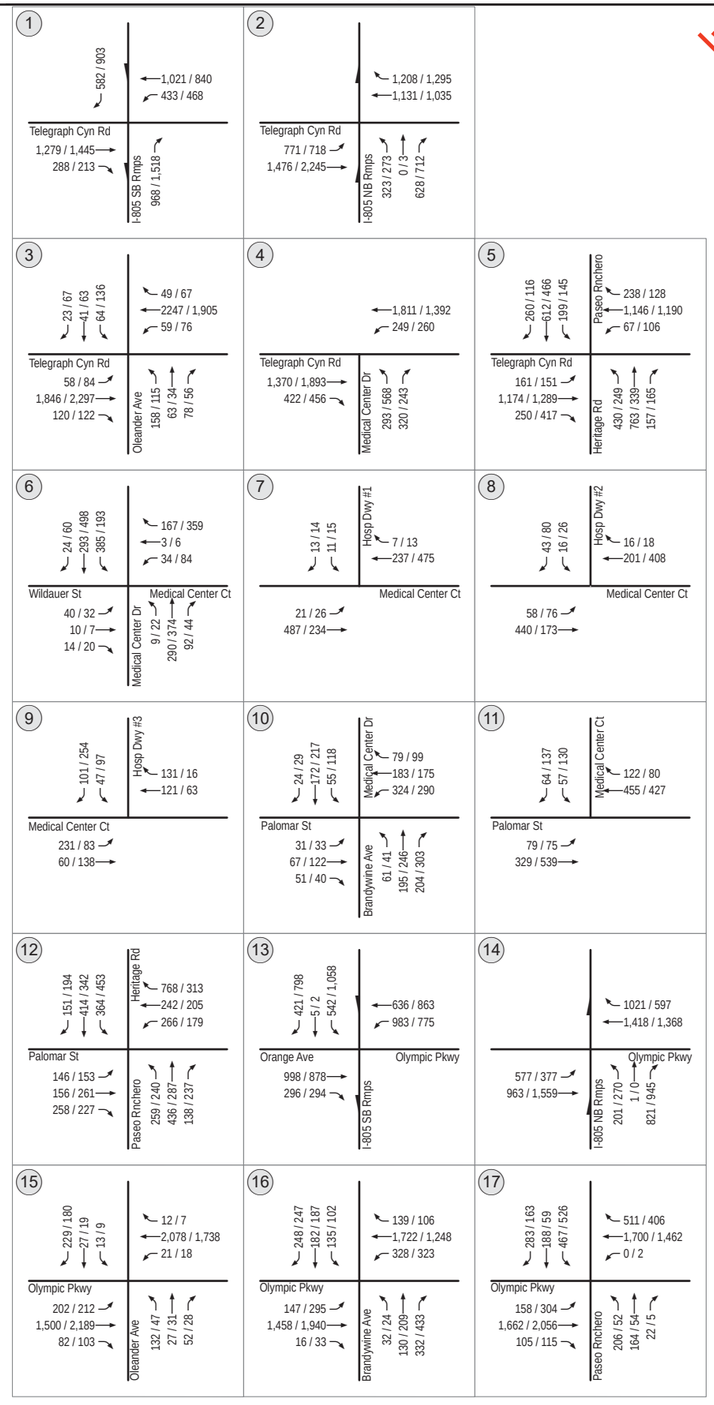
As indicated above, the number of vehicles on the roadway (also known as traffic volumes) as well as the number of vehicles turning at intersections (also known as turning movements) is needed for the LOS analysis utilized by the City to evaluate transportation facilities. Intersection and street segment traffic counts were taken on October 27, 2015 while schools were in session, and project driveway counts were taken on November 3 and 4, 2015. Freeway volumes were obtained from data collected during October 2015 and the Performance Measurement System (PeMS) traffic modeling software. This information is illustrated on Figure 5.3-2, and was utilized to complete the LOS analysis.

INTERSECTION LOS

As shown in Table 5.3-1, all intersections are operating at acceptable LOS D or better with the following three exceptions:

- E. Palomar Street/Heritage Road (LOS F during the AM peak hour)
- Olympic Parkway/I-805 SB Ramps (LOS E during the AM and PM peak hours)
- Olympic Parkway/I-805 NB Ramps (LOS E during the AM peak hour)

Map Source: Linscott, Law & Greenspan Engineers



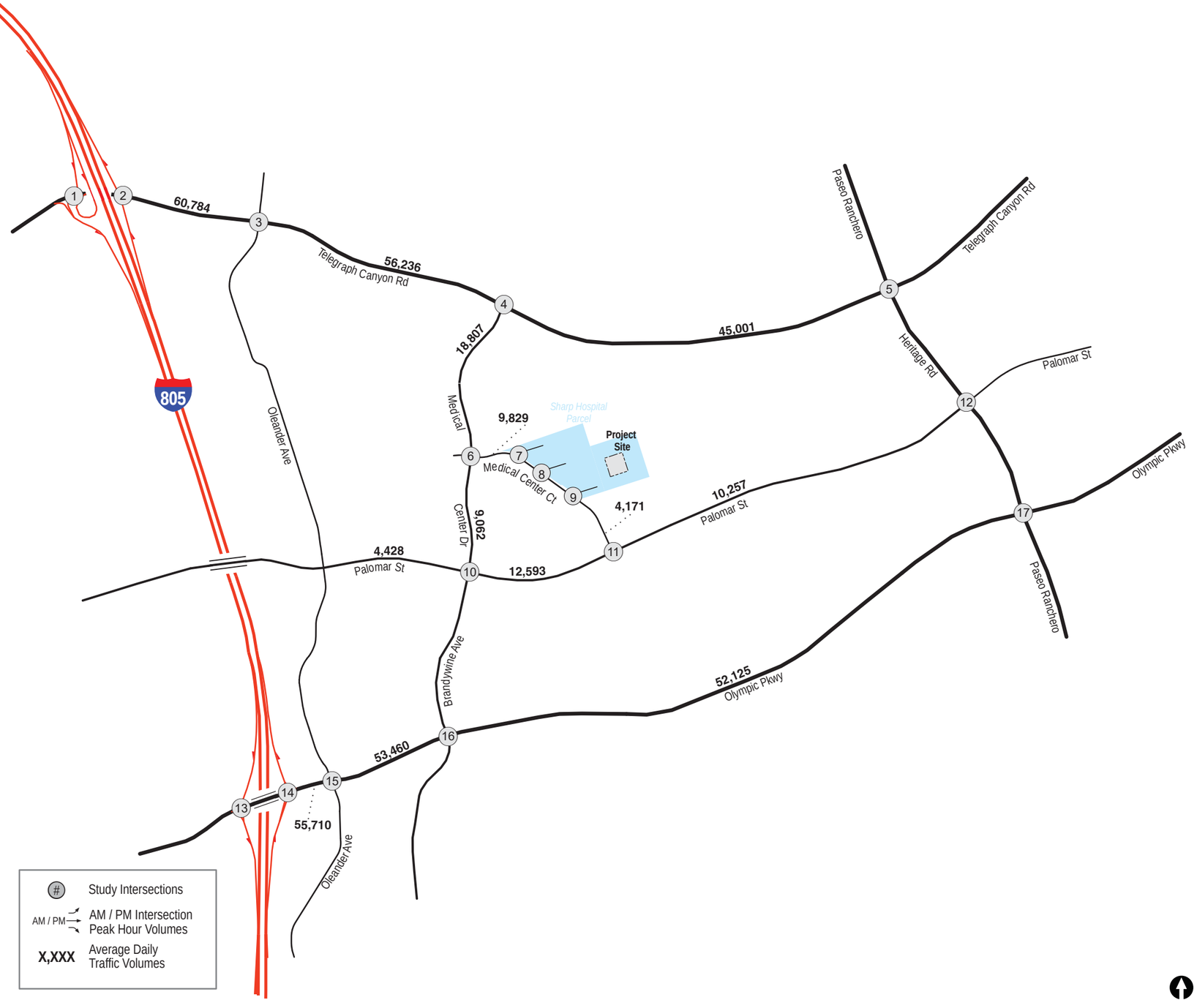


FIGURE 5.3-2
Existing Traffic Volumes

TABLE 5.3-1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing Delay[a]	Existing LOS[b]
1. Telegraph Canyon Road/I- 805 SB Ramps	Signal	AM	11.9	B
		PM	29.0	C
2. Telegraph Canyon Road/I-805 NB Ramps	Signal	AM	34.5	C
		PM	46.0	D
3. Telegraph Canyon Road/Oleander Avenue	Signal	AM	23.1	C
		PM	23.9	C
4. Telegraph Canyon Road/Medical Center Drive	Signal	AM	25.7	C
		PM	31.0	C
5. Telegraph Canyon Road/Heritage Road	Signal	AM	47.6	D
		PM	42.5	D
6. Medical Center Court/Medical Center Drive	Signal	AM	20.0	C
		PM	21.4	C
7. Medical Center Court/Loop Road Access West	OWSC[c]	AM	13.5	B
		PM	15.2	C
8. Medical Center Court/Loop Road Access East	OWSC	AM	12.8	B
		PM	14.5	B
9. Medical Center Court/Main Hospital Driveway	OWSC	AM	13.8	B
		PM	10.9	B
10. E. Palomar Street/Medical Center Drive	Signal	AM	30.7	C
		PM	41.9	D
11. E. Palomar Street/Medical Center Court	AWSC[d]	AM	12.6	B
		PM	15.3	C
12. E. Palomar Street/Heritage Road	**Signal**	**AM**	**81.8**	**F**
		PM	46.4	D
13. Olympic Parkway/I-805 SB Ramps	**Signal**	**AM**	**57.8**	**E**
		PM	**65.7**	**E**
14. Olympic Parkway/I-805 NB Ramps	**Signal**	**AM**	**79.3**	**E**
		PM	43.6	D
15. Olympic Parkway/Oleander Avenue	Signal	AM	44.5	D
		PM	38.9	D
16. Olympic Parkway/Brandywine Avenue	Signal	AM	34.6	C
		PM	51.5	D
17. Olympic Parkway/Heritage Road	Signal	AM	44.9	D
		PM	51.7	D

SOURCE: Appendix B.
Bold text represents a significant impact.
[a]Average delay expressed in seconds per vehicle.
[b]Level of Service.
[c]OWSC – One Way Stop Controlled intersection. Minor street left-turn delay reported.
[d]AWSC – All Way Stop Controlled intersection.

STREET SEGMENT LOS

All street segments are operating at acceptable LOS C or better, except the following four segments (Table 5.3-2):

- Telegraph Canyon Road: Oleander Avenue to Medical Center Drive (LOS D)
- Olympic Parkway: I-805 Ramps to Oleander Avenue (LOS D)
- Olympic Parkway: Oleander Avenue to Brandywine Avenue (LOS D)
- Olympic Parkway: Brandywine Avenue to Heritage Road (LOS D)

TABLE 5.3-2
EXISTING STREET SEGMENT OPERATIONS

Street Segment	Functional Classification	Capacity (LOS C)[a]	Existing	
			ADT[b]	LOS[c]
Telegraph Canyon Road				
Halecrest Drive to Oleander Avenue	7-Lane Expressway	61,250	60,784	C
Oleander Avenue to Medical Center Drive	**6-Lane Prime**	**50,000**	**56,236**	**D**
Medical Center Drive to Heritage Road	6-Lane Prime	50,000	45,001	C
Medical Center Drive				
Telegraph Canyon Road to Medical Center Court	Class I Collector	22,000	18,807	B
Medical Center Court to E. Palomar Street	Class I Collector	22,000	9,062	A
Medical Center Court				
East of Medical Center Drive	Class II Collector	12,000	9,829	B
North of E. Palomar Street	Class II Collector	12,000	4,171	A
E. Palomar Street				
Oleander Avenue to Medical Center Drive	4-Lane Major Road	30,000	4,428	A
Medical Center Drive to Medical Center Court	4-Lane Major Road	30,000	12,593	A
Medical Center Court to Heritage Road	4-Lane Major Road	30,000	10,257	A
Olympic Parkway				
I-805 Ramps to Oleander Avenue	**6-Lane Prime**	**50,000**	**55,710**	**D**
Oleander Avenue to Brandywine Avenue	**6-Lane Prime**	**50,000**	**53,460**	**D**
Brandywine Avenue to Heritage Road	**6-Lane Prime**	**50,000**	**52,125**	**D**

SOURCE: Appendix B.
Bold text represents a significant impact.
[a]Capacities based on City of Chula Vista Roadway Classification Table.
[b]Average Daily Traffic Volumes.
[c]Level of Service.

RAMP METER OPERATIONS

I-805 ramp metering within the study area was analyzed during the AM peak hour when meters are operating. The ramp meters do not currently operate in the PM peak hour and, therefore, no PM peak hour ramp metering analysis was completed. As shown in Table 5.3-3, all existing freeway ramp meters operate at acceptable levels (i.e., less than a 15-minute delay).

TABLE 5.3-3
EXISTING RAMP METER OPERATIONS
(AM Peak Hour)

Location	Flow	Rate	Excess Demand	Delay
Telegraph Canyon Road to NB I-805 (2 SOV + 1 HOV)	841	828	13	1
Olympic Parkway to NB I-805 (2 SOV + 1 HOV)	680	778	0	0

SOURCE: Appendix B.
SOV = Single Occupancy Vehicle, HOV = High Occupancy Vehicle

FREEWAY MAINLINE LOS

Table 5.3-4 summarizes the freeway mainline operations on I-805. As seen in this table, all segments are calculated to currently operate at acceptable levels of service.

TABLE 5.3-4
I-805 FREEWAY MAINLINE OPERATIONS

Freeway Segment	Dir.[a]	# of Lanes[b]	Hourly Capacity[c]	ADT[d]	Peak Hour Volume		V/C[e]		LOS[f]	
					AM	PM	AM	PM	AM	PM
Interstate 805										
North of Telegraph Canyon Road	NB	4/1/1	10,400	198,300	5,673	5,559	0.545	0.535	B	B
	SB	4/1/1	10,400		5,609	7,796	0.539	0.750	B	C
Interstate 805										
South of Olympic Parkway	NB	4/1/0	9,200	136,100	4,160	4,719	0.452	0.513	B	B
	SB	4/1/0	9,200		3,924	5,157	0.427	0.561	B	B

SOURCE: Appendix B.
[a]Dir. = Direction
[b]Number of mainline lanes/number of auxiliary lanes/number of HOV lanes.
[c]Capacity calculated at 2000 vph per lane, 1200 vph per Auxiliary lane and 1200 vph per HOV Lane.
[d]Existing ADT Volumes were obtained directly from the freeway Performance Measurement System (PeMS) website.
[e]Volume to Capacity ratio.
[f]Level of Service.

5.3.1.2 Regulatory Plans and Policies

City of Chula Vista General Plan

One of the overall goals of the Land Use and Transportation (LUT) Element of the General Plan is 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 2005, page LUT-85). Objectives and associated policies specifically address opportunities to support transit-oriented development in transit corridors and town centers, as well as the improvement of pedestrian and bicycle environments. Specific objectives and policies addressing this goal, relevant to the proposed project include the following:

OBJECTIVE LUT 16

Integrate land use and transportation planning and related facilities.

POLICIES

LUT 16.1: Promote the development of well-planned communities that will tend to be self-supportive and, thus, reduce the length of vehicular trips, reduce dependency on the automobile, and encourage the use of other modes of travel.

LUT 16.2: Ensure that new development and community activity centers have adequate transportation and pedestrian facilities.

OBJECTIVE LUT 17

Plan and coordinate development to be compatible and supportive of planned transit.

POLICIES

LUT 17.2: Direct higher intensity and mixed-use developments to areas within walking distance of transit, including San Diego Trolley stations along E, H, and Palomar streets, and new stations along future transit lines, including Bus Rapid Transit (BRT).

LUT 17.4: Require developers to consult and coordinate with San Diego Association of Governments (SANDAG) and the City to ensure that development is compatible with and supports the planned implementation of public transit.

OBJECTIVE LUT 18

POLICIES

Reduce traffic demand through Transportation Demand Management (TDM) strategies, increased use of transit, bicycles, walking, and other trip reduction measures.

LUT 18.1: Support and encourage the use of public transit.

LUT 18.2: Provide an efficient and effective paratransit service for elderly and handicapped persons unable to use conventional transit service.

LUT 18.3: Provide and enhance all feasible alternatives to the automobile, such as bicycling and walking, and encourage public transit ridership on existing and future transit routes.

LUT 18.4: Use master planning techniques in new development and redevelopment projects to enable effective use of public transit.

LUT 18.5: Implement TDM strategies, such as carpooling, vanpooling, and flexible work hours that encourage alternatives to driving alone during peak periods.

LUT 18.6: Encourage employer-based TDM strategies, such as: employee transportation allowances; preferential parking for rideshare vehicles; workplace-based carpool programs; and shuttle services.

LUT 18.7: Support the location of private "telework" centers.

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.

OBJECTIVE LUT 23

Promote the use of non-polluting and renewable alternatives for mobility through a system of bicycle and pedestrian paths and trails that are safe, attractive, and convenient forms of transportation.

Chapter 10 of the LUT Element of the General Plan focuses on the East Planning Area, providing a vision specific to this unique part of the City. The transportation-related visions for the planning area are to create more integrated communities including implementation of an integrated transportation network, establishing pedestrian-friendly development standards, and creating incentive to reduce driving (City of Chula Vista 2005, page LUT-226). The site is located in the Master Planned Community portion of the East Planning Area. This area does not have any specific transportation objectives or policies.

City of Chula Vista Growth Management Program

The Growth Management Oversight Commission (GMOC) was created to provide independent annual review of City compliance with the 1991 Growth Management Ordinance (GMO), which sets forth threshold standards related to 11 public facilities and services, including: air quality, drainage, fire and emergency services, fiscal, libraries, parks and recreation, police, schools, sewer, traffic, and water. The GMO specifies that the purpose of the Growth Management Program (GMP) is to implement the General Plan while assuring that development does not occur unless facilities and improvements are available to support that development. The program requires identification of all facilities and improvements necessary to accommodate land uses specified in the General Plan; specify size, capacity, service level, and threshold standards for each identified facility; project total build-out development levels and identify projected facility and improvement needs; provide a policy for timing the construction of each facility and

improvement; and identify the financing method or methods for each facility and improvement.

The traffic section of the GMO sets the requirements used to assess short-term traffic impacts for projects implemented in conformance to the General Plan. Specifically, Section 19.09.040 of the City of Chula Vista Municipal Code states that citywide traffic is expected to maintain LOS C or better as measured by observed average travel speed on all signalized arterial segments; except that during peak hours, a level of service (LOS) D can occur for no more than two hours of the day.

The Chula Vista Traffic Monitoring Program (TMP) is used to assess the operating performance of the City's arterial street system in order to determine compliance with the Threshold Standards of the GMP. Recent GMOC traffic studies have indicated that the northbound Heritage Road segment between Olympic Parkway and Telegraph Canyon Road is not in compliance with these standards (City of Chula Vista 2015). Section 5.3.2 identifies the specific Threshold Standards of the GMO for traffic.

5.3.2 Thresholds of Significance

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

1. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

4. Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

5. Result in inadequate emergency access.

6. Conflict with adopted policies, plans or programs regarding the circulation network, public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

City of Chula Vista Threshold Standards

The City has established specific standards pertaining to direct and cumulative transportation impacts under short- and long-term conditions. These standards are used to evaluate project impacts related to Thresholds 1 and 2, stated above. City thresholds are as follows:

Short-term (Next 4 Years)

Intersections

a. Project-specific impact if both the following criteria are met:

    i. Level of service is LOS E or LOS F.

    ii. Project trips comprise 5 percent or more of entering volume.

b. Cumulative impact if only (i) is met.

Street Links/Segments

If the planning analysis using the v/c ratio indicates LOS C or better, there is no impact. If the planning analysis indicates LOS D, E or F, the GMOC method should be utilized. The following criteria would then be utilized.

a. Project-specific impact if all the following criteria are met:

    i. Level of Service is LOS D, LOS E, or LOS F.

    ii. Project trips comprise 5 percent or more of segment volume.

    iii. Project adds greater than 800 ADT to the segment.

b. Cumulative impact if only (i) is met.

Freeways

a. Project-specific impact if all the following criteria are met:

    i. Freeway segment level of service is LOS E or LOS F.

    ii. Project comprises 5 percent or more of the total forecasted ADT on that freeway segment.

b. Cumulative impact if only (i) is met.

Long-term (After 5 Years)

Intersections

a. Project-specific impact if both the following criteria are met:

   i. Level of service is LOS E or LOS F.

   ii. Project trips comprise 5 percent or more of entering volume.

b. Cumulative impact if only (i) is met.

Street Links/Segments

Use the planning analysis using the v/c ratio methodology only. The GMOC analysis methodology is not applicable beyond a four-year horizon.

a. Project-specific impact if all the following criteria are met:

   i. Level of Service is LOS D, LOS E, or LOS F.

   ii. Project trips comprise 5 percent or more of segment volume.

   iii. Project adds greater than 800 ADT to the segment.

b. Cumulative impact if only (i) above is met. However, if the intersections along a LOS D or LOS E segment all operate at LOS D or better, the segment impact is considered not significant since intersection analysis is more indicative of actual roadway system operations than street segment analysis. If segment level of service is LOS F, impact is significant regardless of intersection LOS.

c. Notwithstanding the foregoing, if the impact identified in paragraph a. above occurs at study horizon year 10 or later, and is off-site and not adjacent to the project, the impact is considered cumulative. Study year 10 may be that typical SANDAG model year which is between 8 and 13 years in the future. In this case of a traffic study being performed in the period of 2000 to 2002, because the typical model will only evaluate traffic at years divisible by 5 (i.e., 2005, 2010, 2015, and 2020) study horizon year 10 would correspond to the SANDAG model for year 2010 and would be 8 years in the future. If the model year is less than 7 years in the future, study horizon year 10 would be 13 years in the future.

d. In the event a direct identified project-specific impact in paragraph a. above occurs at study horizon year 5 or earlier and the impact is off-site and not adjacent to his project, but the property immediately adjacent to the identified project-specific impact is also proposed to be developed in approximately the same time frame, an additional analysis may be required to determine whether or not the identified project-specific impact would still occur if the development of the adjacent property

does not take place. If the additional analysis concludes that the identified project-specific impact is no longer a direct impact, then the impact shall be considered cumulative.

Freeways

a. Project-specific impact if all the following criteria are met:

   i. Freeway segment LOS is LOS E or LOS F.

   ii. Project comprises 5 percent or more of the total forecasted ADT on that freeway segment.

b. Cumulative impact if only (i) is met.

As indicated above, traffic impacts are defined as either “direct” impacts or “cumulative” impacts. Direct project impacts are those impacts for which the addition of project trips results in an identifiable degradation in LOS on freeway segments or roadway segments triggering the need for specific project-related improvement strategies. Cumulative impacts are those in which the project trips contribute to a poor LOS, at a nominal level. As the project is consistent with the existing zoning, no long-term + project analysis is required and this section need not identify the long-term impact analysis criteria. Refer to Appendix B, Chapter 5 for additional details.

5.3.3 Impacts

Thresholds 1 and 2: Conflicts with Applicable Plans

Trip Generation and Distribution

Based on the (Not So) Brief Guide of Traffic Generators for the San Diego Region (SANDAG 2002) trip generation rate of 20 trips per bed and the proposed 138 beds, the proposed project would generate 2,760 average daily traffic (ADT). During the peak hours, this would be 221 trips during the AM peak hour (155 inbound/66 outbound trips) and 276 trips during PM peak hour (110 inbound/ 166 outbound trips). To determine the ADT added to each transportation facility, the trips were distributed on the roadway in accordance with the Select Zone Assignment (SZA) plot provided by SANDAG. Refer to Figures 5.3-3 and 5.3-4 for an illustration of the project traffic distribution and the existing + project roadway volumes, respectively.

Map Source: Linscott, Law & Greenspan Engineers

FIGURE 5.3-3
Project Traffic Distribution

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Map Source: Linscott, Law & Greenspan Engineers

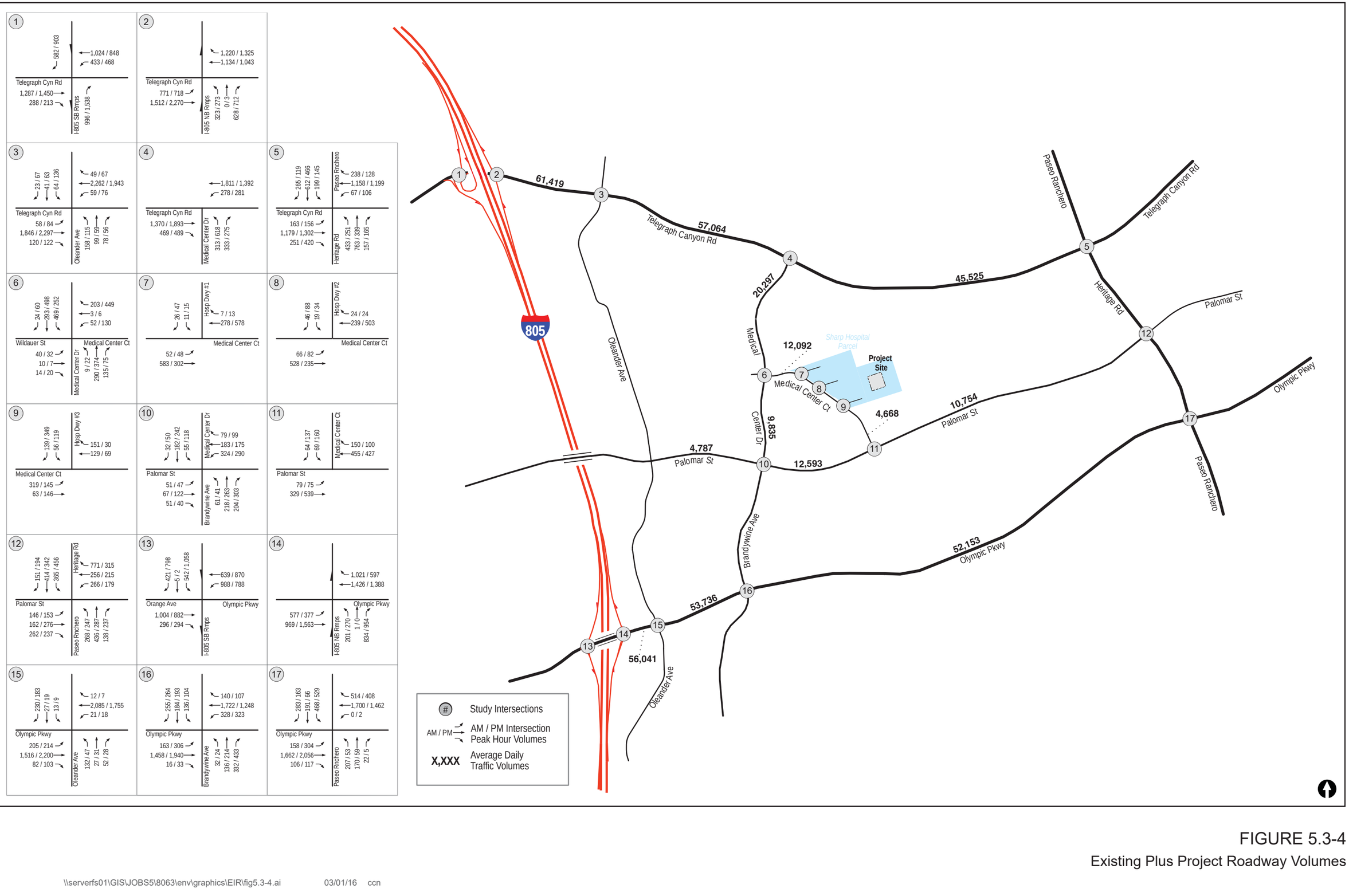

FIGURE 5.3-4

Existing Plus Project Roadway Volumes

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While the trip generation rates specified above are used for purposes of this analysis, it should be noted that Sharp Chula Vista Medical Center is experiencing a dramatic increase in patient volumes and associated trip generation even without project construction. Sharp provided growth statistics for a five-year period as shown in the table below. Currently, due to a lack of hospital capacity, there are certain times that ambulances are diverted to another facility. As shown in Table 5.3-5, the number of hours per year that ambulances are diverted decreased in 2012 and 2013 because of the completion of the new emergency department; however, the hours increased significantly again for 2014 and 2015. Similar trends can be seen for patients being seen, but not being admitted or leaving against medical advice.

TABLE 5.3-5
EMERGENCY DEPARTMENT STATISTICS FOR 2011-2015

	2011	2012	2013	2014	2015
Patients seen in the Emergency Department	51,367	54,933	58,305	65,041	69,349
Patients seen but left without being admitted (elopes)	1,329	1,107	1,094	1,737	2,484
Patients seen but left Against Medical Advice (AMA)	313	346	306	340	348
Total Elopes and AMAs	**1,642**	**1,453**	**1,400**	**2,077**	**2,832**
Hours ambulances being diverted	1,762	849	478	1,024	2,145
# of patients diverted to another facility	249	144	72	159	322
Average Length of Stay (in hours) of a patient in the Emergency Department	4.9	4.8	4.6	4.7	5.0

Therefore, while the Ocean View Tower would provide increased patient capacity which would be associated with increased trip generation, the trips are likely much less than SANDAG estimates. Additionally, the number of trips to the medical center is increasing even without the hospital expansion due to growth in the surrounding community. Over the past five years, there has been an average of 8 percent growth (per year) in the volume of patients seen at the emergency department and over 80 percent of the hospital patient count (on average) arrives via the emergency department. Thus, the project would accommodate existing and future demand for hospital services by providing improved facilities that can better handle patient volumes.

Existing + Project

INTERSECTIONS

The same three intersections (listed below) currently operating at unacceptable LOS E or F would operate at unacceptable conditions under the existing + project conditions (Table 5.3-6). The addition of project traffic to the existing conditions would not cause any additional intersections to operate unacceptably. As project traffic added to the intersections operating at unacceptable LOS E or F would be less than 5 percent of the

total traffic volume, the project would have a less than significant direct impact to intersections under the existing + project conditions. However, the addition of project traffic to any intersection operating at unacceptable LOS E or F would be considered a significant cumulative impact. Thus, the project would have a significant cumulative impact to the following intersections under the existing + project conditions:

- E. Palomar Street/Heritage Road (LOS F in AM)
- Olympic Parkway/I-805 SB Ramps (LOS E in AM/PM)
- Olympic Parkway/I-805 NB Ramps (LOS F in AM)

TABLE 5.3-6
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Project % of Entering Volume (>5%)	Impact Type[e]
			Delay[a]	LOS[b]	Delay[a]	LOS[b]		
1. Telegraph Canyon Road/ I- 805 SB Ramps	Signal	AM	11.9	B	11.9	B	1%	None
		PM	29.0	C	29.4	C	1%	
2. Telegraph Canyon Road/ I-805 NB Ramps	Signal	AM	34.5	C	34.7	C	1%	None
		PM	46.0	D	48.4	D	1%	
3. Telegraph Canyon Road/ Oleander Avenue	Signal	AM	23.1	C	23.4	C	1%	None
		PM	23.9	C	24.2	C	1%	
4. Telegraph Canyon Road/ Medical Center Drive	Signal	AM	25.7	C	27.2	C	2%	None
		PM	31.0	C	33.6	C	3%	
5. Telegraph Canyon Road/ Heritage Road	Signal	AM	47.6	D	48.1	D	1%	None
		PM	42.5	D	42.7	D	1%	
6. Medical Center Court/Medical Center Drive	Signal	AM	20.0	C	25.3	C	12%	None
		PM	21.4	C	35.8	D	12%	
7. Medical Center Court/Loop Road Access West	OWSC[c]	AM	13.5	B	14.6	B	19%	None
		PM	15.2	C	17.5	C	23%	
8. Medical Center Court/Loop Road Access East	OWSC	AM	12.8	B	14.9	B	16%	None
		PM	14.5	B	18.6	C	19%	
9. Medical Center Court/Main Hospital Driveway	OWSC	AM	13.8	B	18.2	C	19%	None
		PM	10.9	B	12.7	B	24%	
10. E Palomar Street/ Medical Center Drive	Signal	AM	30.7	C	31.3	C	4%	None
		PM	41.9	D	42.0	D	4%	
11. E Palomar Street/ Medical Center Court	AWSC[d]	AM	12.6	B	13.2	B	3%	None
		PM	15.3	C	16.8	C	3%	
12. E Palomar Street/ Heritage Road	**Signal**	**AM**	**81.8**	**F**	**82.1**	**F**	**1%**	**Cuml**
		PM	46.4	D	46.6	D	1%	
13. Olympic Parkway/ I-805 SB Ramps	**Signal**	**AM**	**57.8**	**E**	**57.8**	**E**	**0%**	**Cuml**
		PM	**65.7**	**E**	**67.0**	**E**	**1%**	
14. Olympic	**Signal**	**AM**	**79.3**	**E**	**81.5**	**F**	**1%**	**Cuml**

TABLE 5.3-6
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Project % of Entering Volume (>5%)	Impact Type[e]
			Delay[a]	LOS[b]	Delay[a]	LOS[b]		
Parkway/ I-805 NB Ramps		PM	43.6	D	44.4	D	1%	
15. Olympic Parkway/ Oleander Avenue	Signal	AM	44.5	D	50.8	D	1%	None
		PM	38.9	D	39.1	D	1%	
16. Olympic Parkway/ Brandywine Avenue	Signal	AM	34.6	C	35.1	D	1%	None
		PM	51.5	D	51.8	D	1%	
17. Olympic Parkway/ Heritage Road	Signal	AM	44.9	D	45.2	D	0%	None
		PM	51.7	D	52.0	D	0%	

NOTES:
Bold text represents a significant impact.
[a]Average delay expressed in seconds per vehicle.
[b]Level of Service.
[c]OWSC – One Way Stop Controlled intersection. Minor street left-turn delay reported.
[d]AWSC – All Way Stop Controlled intersection.
[e]Cuml = cumulative.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

STREET SEGMENTS

As shown in Table 5.3-7, the same five street segments operating at LOS D/E/F under the existing conditions would continue to operate unacceptably under the existing + project conditions. In addition, Telegraph Canyon Road segment (Halecrest Drive to Oleander Avenue) would operate at LOS D with the addition of the project to the existing conditions. As the project would add more than 800 ADT and project traffic would be more than 5 percent of the total traffic, the project would have a significant direct impact to the following segment under the existing + project conditions:

- Medical Center Court: East of Medical Center Drive

As the project would add less than 800 ADT and project traffic would be less than 5 percent of the total traffic on these segments, the project impact would have a less than significant direct impact to the remaining Telegraph Canyon Road and Olympic Parkway segments operating at LOS D or worse. However, the project impacts at these segments (listed below) would be cumulatively significant under the existing + project conditions, as these segments would operate at LOS D for more than 2 hours or LOS E/F for 1 hour (see Table 5.3-7):

- Telegraph Canyon Road: Halecrest Drive to Oleander Avenue
- Telegraph Canyon Road: Oleander Avenue to Medical Center Drive
- Olympic Parkway: I-805 Ramps to Oleander Avenue

- Olympic Parkway: Oleander Avenue to Brandywine Avenue
- Olympic Parkway: Brandywine Avenue to Heritage Road

TABLE 5.3-7
EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Capacity (LOS C)[a]	Existing		Existing + Project		Significance Criteria		Impact Type[d]
		ADT[b]	LOS[c]	ADT[b]	LOS[c]	Project ADT >800	Project Contribution >5%	
Telegraph Canyon Road								
Halecrest Drive to Oleander Avenue	61,250	60,784	C	**61,419**	**D**	635	1%	**Cuml**
Oleander Avenue to Medical Center Drive	50,000	**56,236**	**D**	**57,064**	**E**	**828**	1%	**Cuml**
Medical Center Drive to Heritage Road	50,000	45,001	C	45,525	C	524	1%	None
Medical Center Drive								
Telegraph Canyon Road to Medical Center Court	22,000	18,807	B	20,297	C	1,490	7%	None
Medical Center Court to E. Palomar Street	22,000	9,062	A	9,835	A	773	8%	None
Medical Center Court								
East of Medical Center Drive	12,000	9,829	B	12,092	**D**	**2,263**	**19%**	**Direct**
North of E. Palomar Street	12,000	4,171	A	4,668	A	497	11%	None
E. Palomar Street								
Oleander Avenue to Medical Center Drive	30,000	4,428	A	4,787	A	359	7%	None
Medical Center Drive to Medical Center Court	30,000	12,593	A	12,593	A	0	0%	None
Medical Center Court to Heritage Road	30,000	10,257	A	10,754	A	497	5%	None
Olympic Parkway								
I-805 Ramps to Oleander Avenue	50,000	**55,710**	**D**	**56,041**	**D**	331	1%	**Cuml**
Oleander Avenue to Brandywine Avenue	50,000	**53,460**	**D**	**53,736**	**D**	276	1%	**Cuml**
Brandywine Avenue to Heritage Road	50,000	**52,125**	**D**	**52,153**	**D**	28	0%	**Cuml**

NOTES:
Bold text represents a significant impact.
[a]Capacities based on City of Chula Vista Roadway Classification Table.
[b]Average Daily Traffic Volumes.
[c]Level of Service.
[d]Cuml = cumulative.

RAMP METERS

As shown in Table 5.3-8, the I-805 ramp meters within the study area would continue to operate acceptably with the addition of project traffic to the existing conditions. Thus, project impacts to ramp meters would be less than significant under the existing + project conditions.

TABLE 5.3-8
EXISTING + PROJECT RAMP METER OPERATIONS

Location/Condition	Peak Hour	Peak Hour Flow F[a]	Discharge Rate R[a]	Excess Demand E[a]	Delay[b]	Queue[c]
Telegraph Canyon Road to NB I-805 – 2 SOV + 1 HOV						
Existing	AM	841 [d]	828	13	1	327
Existing + Project	AM	961 [d]	828	33	2	837
Olympic Parkway to SB I-805 – 2 SOV + 1 HOV						
Existing	AM	680 [d]	778	0	0	0
Existing + Project	AM	680 [d]	778	0	0	0

NOTES:
SOV = Single Occupancy Vehicle, HOV = High Occupancy Vehicle
[a]Vehicles per hour per lane.
[b]Calculated delay in minutes per lane
[c]Calculated queue length in feet per lane
[d]15% reduction in volume due to HOV lane.

FREEWAY MAINLINES

Freeway mainlines would continue to operate acceptably with the addition of project traffic to the existing conditions (Table 5.3-9). Thus, project impacts to freeway mainlines would be less than significant under the existing + project conditions.

Near-term (Existing + Cumulative Projects) + Project

The near-term conditions are intended to capture other projects in the area that would be operational at the same time as the proposed project. Instead of identifying individual cumulative projects, it was determined through coordination with the City Traffic Engineer, and based on historical traffic counts in the study area, that a 10 percent growth factor is appropriate to be utilized to estimate cumulative project traffic. Historical traffic counts were reviewed on Telegraph Canyon Road and Olympic Parkway from 2010 to 2015 and show a less than 1 percent per year increase. Therefore, with a horizon of 2025 (10 years post when traffic counts were conducted), the 10 percent growth factor is appropriate and conservative. This is also considered appropriate because most of the study area is already built out and the majority of new traffic on the roadway would be from growth in nearby areas. The South Bay Bus Rapid Transit project was taken into consideration as well. The transit project would provide a rapid transit route from Downtown San Diego to the Otay Mesa Port of Entry, and is scheduled to start construction in January 2017. No other improvements to the existing conditions were assumed in this near-term analysis. See Figure 5.3-5 for an illustration of the near-term + project traffic volumes.

TABLE 5.3-9
EXISTING + PROJECT FREEWAY MAINLINE OPERATIONS

Freeway Segment	Dir.[a]	# of Lanes[b]	Hourly Capacity[c]	Peak Hour Volume						V/C[e]		LOS[f]		Δ V/C[g]	
				Existing[d]		Project		Existing + Project							
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Interstate 805															
North of Telegraph	NB	4/1/1	10,400	5,673	5,559	12	30	5,685	5,589	0.547	0.537	B	B	0.001	0.003
Canyon Road	SB	4/1/1	10,400	5,609	7,796	28	20	5,637	7,816	0.542	0.752	B	C	0.003	0.002
Interstate 805															
South of Olympic	NB	4/1/0	9,200	4,160	4,719	13	9	4,173	4,728	0.454	0.514	B	B	0.001	0.001
Parkway	SB	4/1/0	9,200	3,924	5,157	5	13	3,929	5,170	0.427	0.562	B	B	0.001	0.001

NOTES:
[a]Dir. = Direction. NB = northbound; SB = southbound
[b]Number of mainline lanes/number of auxiliary lanes/number of high occupancy vehicle (HOV) lanes.
[c]Capacity calculated at 2,000 vehicles per hour (vph) per lane, 1,200 vph per auxiliary lane, and 1,200 vph per HOV Lane.
[d]Existing ADT volumes were obtained directly from the freeway Performance Measurement System (PeMS) website.
[e]V/C = volume to capacity ratio.
[f]LOS = level of service.
[g]Increase in V/C ratio due to project traffic.

LOS	V/C
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

Map Source: Linscott, Law & Greenspan Engineers

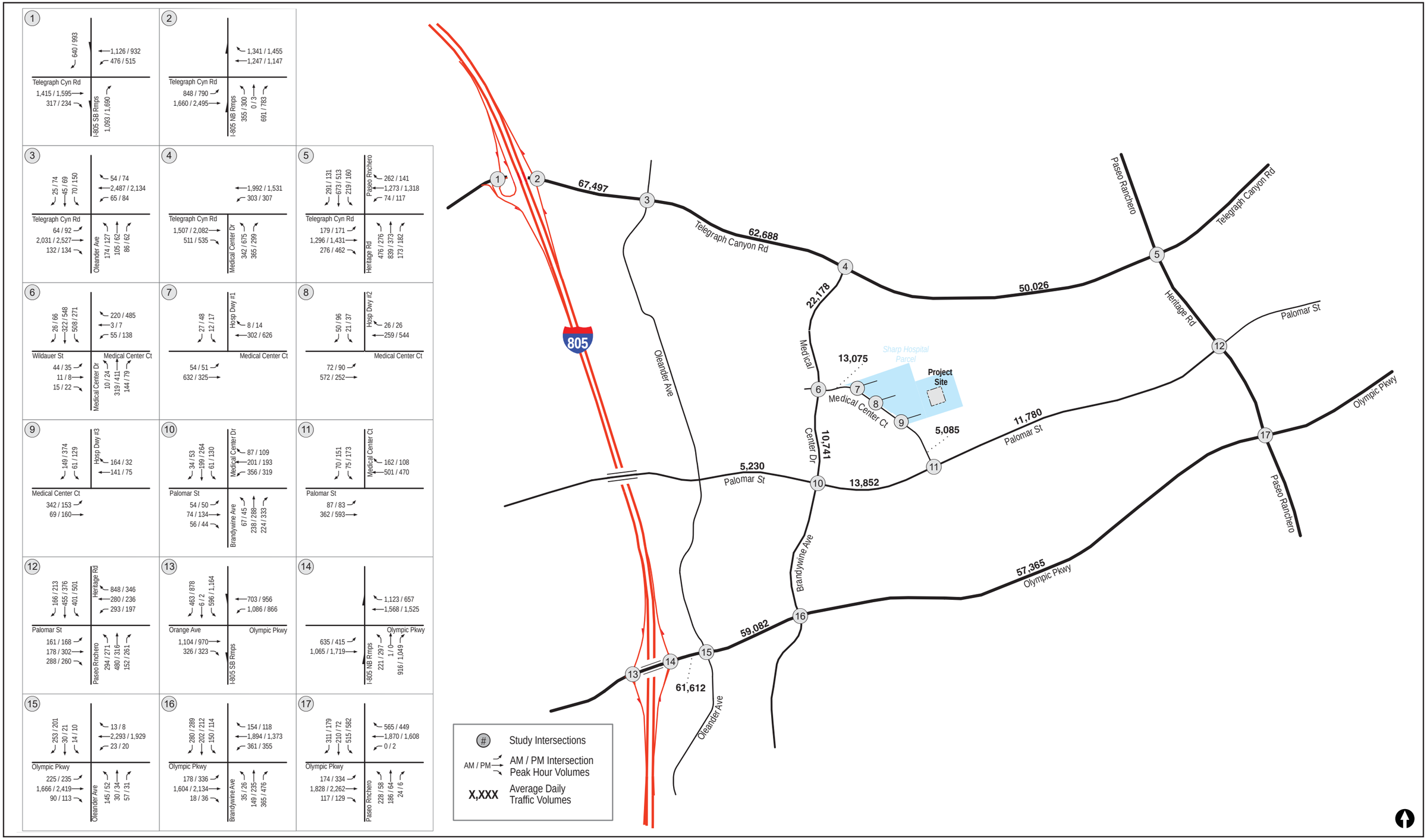

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FIGURE 5.3-5

Near-Term Plus Project Traffic Volumes

INTERSECTIONS

Under the near-term conditions, seven intersections (Intersections 2, and 12 to 17) would operate at unacceptable LOS E or F (Table 5.3-10). With the addition of project traffic to the near-term conditions, these same seven intersections would operate unacceptably and no additional intersections would operate unacceptably. As the project traffic would not comprise 5 percent or more of the volumes entering these intersections operating at LOS E or LOS F, the project would have a less than significant direct impact to these intersections under the near-term + project conditions. As identified below, the project impact to these seven intersections would be cumulatively significant under the near-term + project conditions:

- Telegraph Canyon Road/I-805 NB Ramps (LOS E in PM)
- E. Palomar Street/Heritage Road (LOS F in AM)
- Olympic Parkway/I-805 SB Ramps (LOS E in AM and LOS F in PM)
- Olympic Parkway/I-805 NB Ramps (LOS F in AM)
- Olympic Parkway/Oleander Avenue (LOS E in AM)
- Olympic Parkway/Brandywine Avenue (LOS E in PM)
- Olympic Parkway/Heritage Road (LOS E in PM)

TABLE 5.3-10
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Near-Term		Near-Term + Project		Project % of Entering Volume (>5%)	Impact Type[e]
			Delay[a]	LOS[b]	Delay[a]	LOS[b]		
1. Telegraph Canyon Road/I- 805 SB Ramps	Signal	AM	12.0	B	12.0	B	1%	None
		PM	37.3	D	37.8	D	1%	
2. Telegraph Canyon Road/I-805 NB Ramps	Signal	AM	46.6	D	47.1	D	1%	**Cuml**
		PM	**63.1**	**E**	**65.7**	**E**	1%	
3. Telegraph Canyon Road/Oleander Avenue	Signal	AM	25.3	C	25.6	C	1%	None
		PM	26.2	C	26.6	C	1%	
4. Telegraph Canyon Road/Medical Center Drive	Signal	AM	28.0	C	29.7	C	2%	None
		PM	34.4	C	38.3	D	3%	
5. Telegraph Canyon Road/Heritage Road	Signal	AM	54.1	D	54.8	D	0%	None
		PM	45.9	D	46.2	D	1%	
6. Medical Center Court/Medical Center Drive	Signal	AM	21.8	C	30.9	C	11%	None
		PM	25.2	C	43.0	D	11%	
7. Medical Center Court/Loop Road Access West	OWSC[c]	AM	14.5	B	15.9	C	17%	None
		PM	16.7	C	33.7	D	21%	
8. Medical Center Court/Loop Road Access East	OWSC	AM	13.8	B	20.3	C	15%	None
		PM	15.9	C	21.4	C	18%	
9. Medical Center Court/Main Hospital Driveway	OWSC	AM	15.3	C	21.9	C	18%	None
		PM	11.4	B	13.5	B	22%	

TABLE 5.3-10
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Near-Term		Near-Term + Project		Project % of Entering Volume (>5%)	Impact Type[e]
			Delay[a]	LOS[b]	Delay[a]	LOS[b]		
10. E Palomar Street/ Medical Center Drive	Signal	AM	33.2	C	33.4	C	4%	None
		PM	50.8	D	52.0	D	4%	
11. E Palomar Street/ Medical Center Court	AWSC[d]	AM	9.0	A	9.3	A	3%	None
		PM	10.9	B	11.6	B	3%	
12. E Palomar Street/ Heritage Road	Signal	**AM**	**97.3**	**F**	**97.7**	**F**	1%	**Cuml**
		PM	51.2	D	51.8	D	1%	
13. Olympic Parkway/ I-805 SB Ramps	Signal	**AM**	**63.8**	**E**	**64.0**	**E**	0%	**Cuml**
		PM	**84.2**	**F**	**85.7**	**F**	0%	
14. Olympic Parkway/ I-805 NB Ramps	Signal	**AM**	**104.2**	**F**	**106.4**	**F**	0%	**Cuml**
		PM	53.7	D	54.6	D	1%	
15. Olympic Parkway/ Oleander Avenue	Signal	**AM**	**57.7**	**E**	**58.1**	**E**	1%	**Cuml**
		PM	45.8	D	46.0	D	1%	
16. Olympic Parkway/ Brandywine Avenue	Signal	AM	38.3	D	39.0	D	1%	**Cuml**
		PM	**59.4**	**E**	**59.8**	**E**	1%	
17. Olympic Parkway/ Heritage Road	Signal	AM	45.1	D	45.1	D	0%	**Cuml**
		PM	**62.7**	**E**	**62.9**	**E**	0%	

NOTES:
Bold text represents a significant impact.
[a]Average delay expressed in seconds per vehicle.
[b]LOS = level of service.
[c]OWSC – One-Way Stop Controlled intersection. Minor street left-turn delay reported.
[d]AWSC – All-Way Stop Controlled intersection.
[e]Cuml = cumulative.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

STREET SEGMENTS

As shown in Table 5.3-11, the same four street segments operating at LOS D/E/F under the existing conditions would continue to operate at potentially unacceptable levels under the near-term conditions. With the addition of project traffic to the near-term, the Telegraph Canyon Road segment (Halecrest Drive to Oleander Avenue) would also operate at LOS D.

As the project would add more than 800 ADT and project traffic would be more than 5 percent of the total traffic, the project impact would have a significant direct impact to the following segment in the near-term + project conditions:

- Medical Center Court: East of Medical Center Drive

As the project would add less than 800 ADT and project traffic would be less than 5 percent of the total traffic on these segments, the project impact would have a less than significant direct impact to the remaining Telegraph Canyon Road and Olympic Parkway segments operating at LOS D or worse in the near-term + project conditions. However, the project impacts at these segments (listed below) would be cumulatively significant, as these segments would operate at LOS D for more than 2 hours or LOS E/F for 1 hour under the near-term + project conditions:

- Telegraph Canyon Road: Halecrest Drive to Oleander Avenue
- Telegraph Canyon Road: Oleander Avenue to Medical Center Drive
- Olympic Parkway: I-805 Ramps to Oleander Avenue
- Olympic Parkway: Oleander Avenue to Brandywine Avenue
- Olympic Parkway: Brandywine Avenue to Heritage Road

TABLE 5.3-11
NEAR-TERM STREET SEGMENT OPERATIONS

Street Segment	Capacity (LOS C)[a]	Near-Term		Near-Term + Project		Significance Criteria		Impact Type
		ADT[b]	LOS[c]	ADT[b]	LOS[c]	Project ADT >800	Project Contribution >5%	
Telegraph Canyon Road								
Halecrest Drive to Oleander Avenue	61,250	66,862	C	**67,497**	**D**	635	1%	**Cuml**
Oleander Avenue to Medical Center Drive	50,000	**61,860**	**D**	**62,688**	**E**	**828**	1%	**Cuml**
Medical Center Drive to Heritage Road	50,000	49,501	C	50,026	C	524	1%	None
Medical Center Drive								
Telegraph Canyon Road to Medical Center Court	22,000	20,688	B	22,178	C	1,490	7%	None
Medical Center Court to E. Palomar Street	22,000	9,968	A	10,741	A	773	7%	None
Medical Center Court								
East of Medical Center Drive	12,000	10,812	C	**13,075**	**D**	**2,263**	**17%**	**Direct**
North of E. Palomar Street	12,000	4,588	A	5,085	A	497	10%	None
E. Palomar Street								
Oleander Avenue to Medical Center Drive	30,000	4,871	A	5,230	A	359	7%	None
Medical Center Drive to Medical Center Court	30,000	13,852	A	13,852	A	0	0%	None
Medical Center Court to Heritage Road	30,000	11,283	A	11,780	A	497	4%	None
Olympic Parkway								
I-805 Ramps to Oleander Avenue	50,000	**61,281**	**D**	**61,612**	**D**	331	1%	**Cuml**
Oleander Avenue to Brandywine Avenue	50,000	**58,806**	**D**	**59,082**	**D**	276	0%	**Cuml**
Brandywine Avenue to Heritage Road	50,000	**57,338**	**D**	**57,365**	**D**	28	0%	**Cuml**

NOTES:
Bold text represents a significant impact.
[a]Capacities based on City of Chula Vista Roadway Classification Table.
[b]ADT = average daily traffic.
[c]LOS = level of service.
[d]Cuml = cumulative.

RAMP METERS

As shown in Table 5.3-12, the I-805 ramp meters within the study area would continue to operate acceptably under both the near-term and the near-term + project conditions. Thus, project impacts to ramp meters would be less than significant under the near-term + project conditions.

TABLE 5.3-12
NEAR-TERM RAMP METER OPERATIONS

Location/Condition	Peak Hour	Peak Hour Flow F[a]	Discharge Rate R[a]	Excess Demand E[a]	Delay[b]	Queue[c]
Telegraph Canyon Road to NB I-805 – 2 SOV **+** 1 HOV						
Near-Term	AM	925[d]	828	97	7	2,431
Near-Term + Project	AM	946[d]	828	118	9	2,941
Olympic Parkway to SB I-805 – 2 SOV + 1 HOV						
Near-Term	AM	748[d]	778	0	0	0
Near-Term + Project	AM	748[d]	778	0	0	0

NOTES:
SOV = Single Occupancy Vehicle, HOV = High Occupancy Vehicle
[a]Vehicles per hour per lane.
[b]Calculated delay in minutes per lane
[c]Calculated queue length in feet per lane
[d]15% reduction in volume due to HOV lane.

FREEWAY MAINLINES

Freeway mainlines would continue to operate acceptably under both the near-term and the near-term + project conditions (Table 5.3-13). Thus, the project impact to freeway mainlines would be less than significant under the near-term + project conditions.

Long-term + Project

The long-term conditions analysis is intended to address potential build-out impacts, and is based on the SANDAG Series 11 Regional Traffic Model which assumes the build-out of land consistent with the zoning code. As the project is consistent with the existing zoning, the build-out of the project is already included in the long-term model baseline. The analysis below addresses the intersections immediately adjacent to the project site (i.e., Intersections 4, 6, 10, and 11) and the roadway segments for the entire study area under long-term + project conditions. See Figure 5.3-6 for an illustration of the long-term conditions traffic volumes.

TABLE 5.3-13
NEAR-TERM FREEWAY MAINLINE OPERATIONS

Freeway Segment	Dir.[a]	# of Lanes[b]	Hourly Capacity[c]	Peak Hour Volume						V/C[e]		LOS[f]		Δ V/C[g]	
				Near-Term[d]		Project		Near-Term + Project							
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Interstate 805															
North of Telegraph Canyon Road	NB	4/1/1	10,400	5,794	5,689	12	30	5,806	5,719	0.558	0.550	B	B	0.001	0.003
	SB	4/1/1	10,400	5,706	7,948	28	20	5,734	7,968	0.551	0.766	B	C	0.003	0.002
Interstate 805															
South of Olympic Parkway	NB	4/1/0	9,200	4,258	4,797	13	9	4,271	4,806	0.464	0.522	B	B	0.001	0.001
	SB	4/1/0	9,200	4,006	5,252	5	13	4,011	5,265	0.436	0.572	B	B	0.001	0.001

NOTES:
[a]Dir. = Direction. NB = northbound; SB = southbound
[b]Number of mainline lanes/number of auxiliary lanes/number of high occupancy vehicle (HOV) lanes.
[c]Capacity calculated at 2000 vehicles per hour (vph) per lane, 1200 vph per Auxiliary lane and 1200 vph per HOV lane.
[d]Existing ADT volumes were obtained directly from the freeway Performance Measurement System (PeMS) website.
[e]V/C = volume to capacity ratio.
[f]LOS = level of service.
[g]Increase in V/C ratio due to project traffic.

Map Source: Linscott, Law & Greenspan Engineers

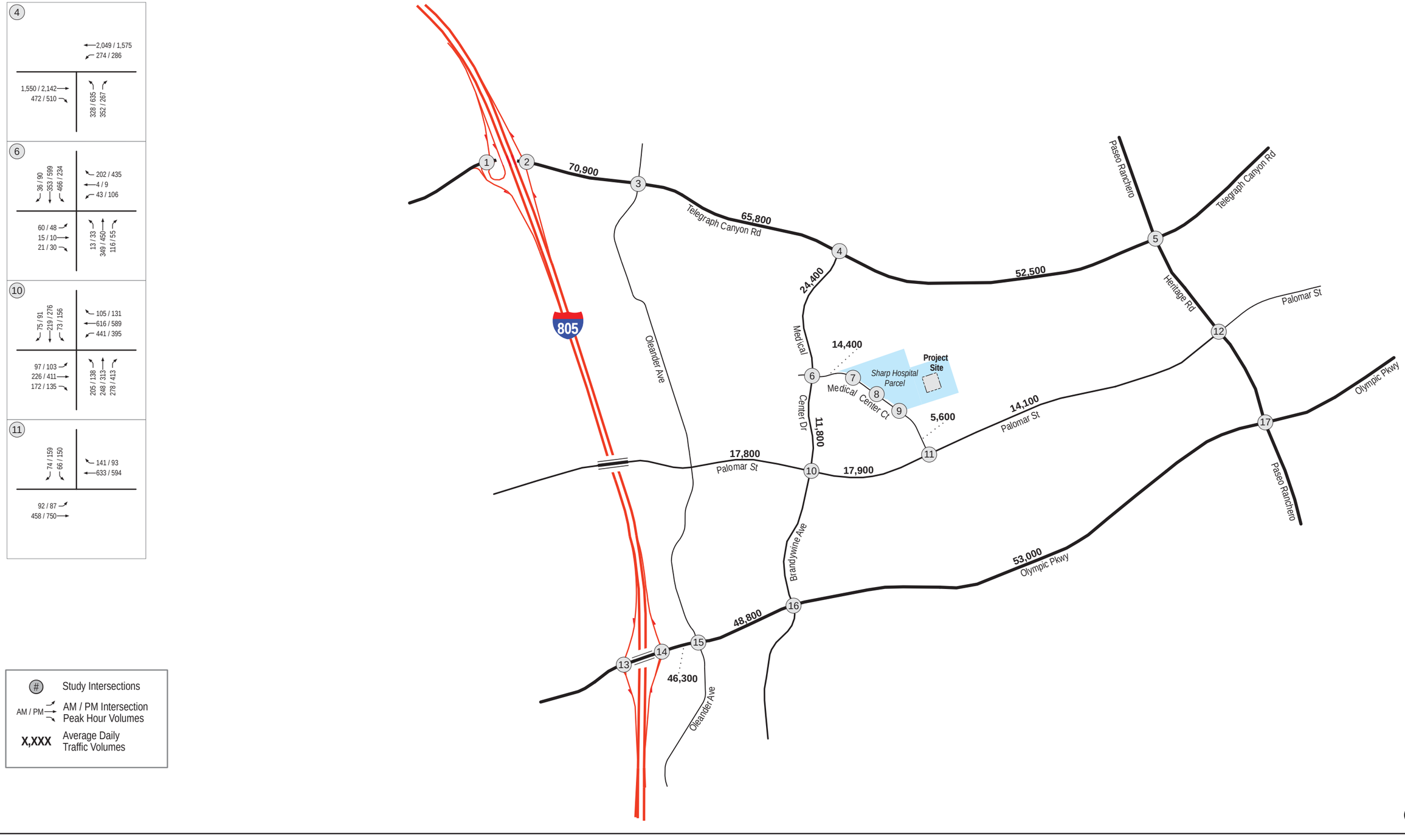

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FIGURE 5.3-6
Long-Term Traffic Volumes

INTERSECTIONS

Under the long-term conditions, the following one intersection (Intersection 10) would operate at unacceptable LOS E or F (Table 5.3-14) representing a significant cumulative impact in the long-term with project scenario:

- E. Palomar Street/Medical Center Drive (LOS E in AM/PM)

TABLE 5.3-14
LONG-TERM WITH PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Long-term with Project		Entering Volume (% of project trips)	Impact Type
			Delay[a]	LOS[b]		
4. Telegraph Canyon Road/Medical Center Drive	Signal	AM	29.2	C	2%	None
		PM	38.4	D	3%	
6. Medical Center Court/Medical Center Drive	Signal	AM	25.5	C	11%	None
		PM	31.9	C	11%	
10. E. Palomar Street/Medical Center Drive	Signal	**AM**	**69.6**	**E**	**2%**	**Cuml**
		PM	**79.8**	**E**	**2%**	
11. E. Palomar Street/Medical Center Court	Signal[c]	AM	9.3	A	3%	None
		PM	11.7	B	3%	

[a]Average delay expressed in seconds per vehicle.
[b]LOS = level of service.
[c]This intersection is assumed to be signalized in 2017.
Bold text represents a significant impact.

STREET SEGMENTS

As shown in Table 5.3-15, the following six street segments would operate at LOS D, E, or F under the long-term with project conditions:

- Telegraph Canyon Road: Halecrest Drive to Oleander Avenue
- Telegraph Canyon Road: Oleander Avenue to Medical Center Drive
- Telegraph Canyon Road: Medical Center Drive to Heritage Road
- Medical Center Drive: Telegraph Canyon Road to Medical Center Court
- Medical Center Court: East of Medical Center Drive
- Olympic Parkway: Brandywine Avenue to Heritage Road

Based on the City's significance criteria, a significant direct impact is calculated in the long-term condition for the following segment:

- Medical Center Court: East of Medical Center Drive

And a significant cumulative impact is calculated in the long-term condition for the following segments:

- Telegraph Canyon Road: Halecrest Drive to Oleander Avenue
- Telegraph Canyon Road: Oleander Avenue to Medical Center Drive

TABLE 5.3-15
LONG-TERM WITH PROJECT STREET SEGMENT OPERATIONS

Street Segment	Classification	LOS C Capacity[a]	Long-term with Project		Significance Criteria		Impact Type[d]
			ADT[b]	LOS[c]	Project ADT > 800	Project % of Entering Volume > 5%	
Telegraph Canyon Road							
Halecrest Drive to Oleander Avenue	7-Lane Expressway	**61,250**	**70,900**	**E**	**635**	**1%**	**Cuml**
Oleander Avenue to Medical Center Drive	6-Lane Prime Arterial	**50,000**	**65,800**	**F**	**828**	**1%**	**Cuml**
Medical Center Drive to Heritage Road	6-Lane Prime Arterial	**50,000**	**52,500**	**D**	524	1%	None
Medical Center Drive							
Telegraph Canyon Road to Medical Center Court	Class I Collector	22,000	24,400	D	1,490	6%	None
Medical Center Court to E. Palomar Street	Class I Collector	22,000	11,800	A	773	7%	None
Medical Center Court							
East of Medical Center Drive	Class II Collector	**12,000**	**14,400**	**E**	**2,263**	**16%**	**Direct**
North of E. Palomar Street	Class II Collector	12,000	5,600	A	497	9%	None
E. Palomar Street							
Oleander Avenue to Medical Center Drive	4-Lane Major Road	30,000	17,800	A	359	2%	None
Medical Center Drive to Medical Center Court	4-Lane Major Road	30,000	17,900	A	0	0%	None
Medical Center Court to Heritage Road	4-Lane Major Road	30,000	14,100	A	497	4%	None
Olympic Parkway							
I-805 Ramps to Oleander Avenue	6-Lane Prime Arterial	50,000	46,300	C	331		None
Oleander Avenue to Brandywine Avenue	6-Lane Prime Arterial	50,000	48,800	C	276	1%	None
Brandywine Avenue to Heritage Road	6-Lane Prime Arterial	50,000	53,000	D	28	1%	None

NOTES:
[a]Capacities based on City of Chula Vista Roadway Classification Table.
[b]ADT = average daily traffic volumes.
[c]LOS = level of service.
[d]Cuml = cumulative.
Bold text represents significant impact.

Construction Traffic

The proposed project would be constructed in four phases, as detailed in Section 3.8. Overall, Phase 3 would involve the highest construction traffic volumes (510 ADT) with internal roadway closures and, therefore, would represent the worst-case construction traffic conditions. In order to evaluate the expected conditions at the time of construction, this construction traffic analysis also incorporates the near-term cumulative traffic. With the addition of project construction traffic to the near-term conditions, Medical Center Court/Main Hospital Driveway intersection would operate at unacceptable LOS F in the AM peak hour (Table 5.3-16). As the project construction traffic would represent over 5 percent of the traffic entering the intersection, the project construction would result in the following direct impact:

- Medical Center Court/Main Hospital Driveway (LOS F in AM)

TABLE 5.3-16
NEAR-TERM INTERSECTION CONSTRUCTION OPERATIONS

Intersection	Control Type	Peak Hour	Near-Term		Near-Term + Construction		Project % of Entering Volume (>5%)	Impact Type
			Delay[a]	LOS[b]	Delay[a]	LOS[b]		
6. Medical Center Court/Medical Center Drive	Signal	AM	21.8	C	35.9	D	12%	None
		PM	25.2	C	35.8	D	10%	None
7. Medical Center Court/Loop Road Access West[c]	OWSC[d]	AM	14.5	B	-	-	-	-
		PM	16.7	C	-	-	-	-
8. Medical Center Court/Loop Road Access East[c]	OWSC	AM	13.8	B	-	-	-	-
		PM	15.9	C	-	-	-	-
9. Medical Center Court/ Main Hospital Driveway	OWSC	AM	15.3	C	**143.5**	**F**	**22%**	**Direct**
		PM	11.4	B	18.5	C	21%	None
11. E Palomar Street/Medical Center Court	Signal[e]	AM	9.0	A	9.2	A	4%	None
		PM	10.9	B	11.7	B	3%	None

NOTES:
Bold text represents a significant impact.
[a]Average delay expressed in seconds per vehicle.
[b]LOS = level of service.
[c]Intersection will be closed during the construction phase of the project.
[d]OWSC – One-way Stop Controlled intersection. Minor street left-turn delay reported.
[e]This intersection is assumed to be signalized in 2017.

Thresholds 1 and 2 Impact Summary

In summary, the project would result in the following significant intersection and street segment impacts:

DIRECT IMPACTS

Intersection

- Medical Center Court/Main Hospital Driveway (near-term construction traffic)

Street Segment

- Medical Center Court: East of Medical Center Drive (existing + project, near-term + project, and long-term + project)

CUMULATIVE IMPACTS

Intersections

- Telegraph Canyon Road/I-805 NB Ramps (near-term + project)
- E. Palomar Street/Medical Center Drive (long-term + project)
- E. Palomar Street/Heritage Road Drive (existing + project, near-term + project)
- Olympic Parkway/I-805 SB Ramps (existing + project, near-term + project)
- Olympic Parkway/I-805 NB Ramps (existing + project, near-term + project)
- Olympic Parkway/Oleander Avenue (near-term + project)
- Olympic Parkway/Brandywine Avenue (near-term + project)
- Olympic Parkway/Heritage Road (near-term + project)

Street Segments

- Telegraph Canyon Road: Halecrest Drive to Oleander Avenue (existing + project, near-term + project, and long-term + project)
- Telegraph Canyon Road: Oleander Avenue to Medical Center Drive (existing + project, near-term + project, and long-term + project)
- Olympic Parkway: I-805 Ramps to Oleander Avenue (existing + project, near-term + project)
- Olympic Parkway: Oleander Avenue to Brandywine Avenue (existing + project, near-term + project)
- Olympic Parkway: Brandywine Avenue to Heritage Road (existing + project, near-term + project)

Thresholds 3 and 4: Transportation Hazards

The project site is located 3.75 miles northwest of the Brown Field Municipal Airport and is not located within the airport's influence area based on Figure 9-13 of the City's General Plan (2005) and the Brown Field Airport Land Use Compatibility Plan (San Diego County Regional Airport Authority 2010). Thus, the project would not result in a change in air traffic patterns or result in an increase in air traffic levels and no substantial safety risk would occur.

The project would be accessed by the newly constructed Loop Road. In addition, traffic control during construction would ensure access is maintained. (Refer to Section 5.3.5.1 for details of mitigation measure TRAF-1 that requires implementation of a traffic control plan). Additionally, the project would construct improvements along Medical Center Court, east of Medical Center Drive (refer to Section 5.3.5.1, measure TRAF-2). These measures would improve traffic flow and would avoid safety hazards. Thus, impacts would be less than significant.

Threshold 5: Emergency Access

The project would be accessed by existing internal roadways (Loop Road) that have been recently improved and provide adequate emergency access within the Sharp Chula Vista Medical Center site. Internal access roadways meet fire department standards and emergency vehicle requirements. Thus, the project would not result in inadequate emergency access and no impact would occur.

Threshold 6: Conflict with Alternative Transportation Policies and Plans

The City of Chula Vista maintains various policies addressing public transit, bicycle and pedestrian facilities. Applicable policies of the City of Chula Vista General Plan are listed in Section 5.3.1.1, above. The project would result in development consistent with the General Plan, within the existing Sharp Chula Vista Medical Center site. General Plan Policy LUT 16.1 states: Promote the development of well-planned communities that will tend to be self-supportive and, thus, reduce the length of vehicular trips, reduce dependency on the automobile, and encourage the use of other modes of travel. The project would support this policy because it would reduce the number of trips required to out of area hospitals and provide increased capacity for hospital and emergency department care within the community. As previously stated, the medical center currently has to send ambulances that arrive at the emergency department to other facilities due to capacity. The project would provide increased capacity that would result in more hospital trips staying within the community. Additionally, the project would not include any features that would impede implementation of alternative transportation policies or plans including transit, bicycle, and/or pedestrian facilities.

There is a bus stop on the north side (westbound) of Medical Center Court, immediately east of the Veterans Home driveway. Sidewalks for pedestrians are currently available on both sides of Medical Center Court, providing pedestrian access to the site from nearby transit. Implementation of the project would not affect existing sidewalks or other pedestrian, transit, or bicycle routes. Thus, the project would not conflict with adopted policies, plans or programs regarding the circulation network, public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities and no impact would occur.

5.3.4 Level of Significance Prior to Mitigation

Thresholds 1 and 2: Conflicts with Applicable Plans

As summarized in Table 5.3-17, the project would result in 15 significant impacts (13 cumulative impacts and 2 direct impacts) to intersections and street segments.

Intersections

A direct intersection impact at Medical Center Court and the Main Hospital Drive would occur due to construction traffic. The following cumulative intersection impacts would occur in the existing + project, near-term + project, and/or long-term + project condition:

- Telegraph Canyon Road/I-805 NB Ramps
- E. Palomar Street/Medical Center Drive
- E. Palomar Street/Heritage Road
- Olympic Parkway/I-805 SB Ramps
- Olympic Parkway/I-805 NB Ramps
- Olympic Parkway/Oleander Avenue
- Olympic Parkway/Brandywine Avenue
- Olympic Parkway/Heritage Road

Street Segments

The project would result in one direct impact to a street segment and five cumulative street segment impacts.

A direct project impact to the Medical Center Court to East of Medical Center Drive Street segment would occur in the existing + project, near-term + project, and long-term + project conditions. The following cumulative street segment impacts would occur in the existing + project, near-term + project, and/or long-term + project condition:

- Telegraph Canyon Road: Halecrest Drive to Oleander Avenue
- Telegraph Canyon Road: Oleander Avenue to Medical Center Drive
- Olympic Parkway: I-805 Ramps to Oleander Avenue
- Olympic Parkway: Oleander Avenue to Brandywine Avenue
- Olympic Parkway: Brandywine Avenue to Heritage Road

TABLE 5.3-17
IMPACT SUMMARY

	Existing + Project	Near-term + Project	Long-term + Project	Construction Traffic
Intersections				
1. Telegraph Canyon Road/I-805 NB Ramps	-	Cuml	-	-
9. Medical Center Court/Main Hospital Driveway	-	-	-	Direct
10. E. Palomar Street/Medical Center Drive	-	-	Cuml	-
12. E. Palomar Street/Heritage Road	Cuml	Cuml	-	-
13. Olympic Parkway/I-805 SB Ramps	Cuml	Cuml	-	-
14. Olympic Parkway/I-805 NB Ramps	Cuml	Cuml	-	-
15. Olympic Parkway/Oleander Avenue		Cuml	-	-
16. Olympic Parkway/Brandywine Avenue		Cuml	-	-
17. Olympic Parkway/Heritage Road		Cuml	-	-
Street Segments				
Medical Center Court: East of Medical Center Drive	Direct	Direct	Direct	-
Telegraph Canyon Road: Halecrest Drive to Oleander Avenue	Cuml	Cuml	Cuml	-
Telegraph Canyon Road: Oleander Avenue to Medical Center Drive	Cuml	Cuml	Cuml	-
Olympic Parkway: I-805 Ramps to Oleander Avenue	Cuml	Cuml	-	-
Olympic Parkway: Oleander Avenue to Brandywine Avenue	Cuml	Cuml	-	-
Olympic Parkway: Brandywine Avenue to Heritage Road	Cuml	Cuml	-	-
Cuml = Cumulative				

Ramp Meters

Project impacts to ramp meters would be less than significant in all conditions analyzed.

Freeway Mainlines

Project impacts to freeway mainlines would be less than significant in all conditions analyzed.

Threshold 3: Changes in Air Traffic Patterns

As the project is outside of any airport influence area, it would not have the potential to affect air traffic patterns. Thus no safety risk would result and no impact would occur.

Threshold 4: Increase Hazards due to a Design Feature

The project would not introduce any project features that could increase hazards on- or off-site. Thus, impacts related to hazards due to a design feature would be less than significant.

Threshold 5: Emergency Access

The OVT is served by existing roadways that provide adequate emergency access and the project would not result in inadequate emergency access. Thus, no impact would occur.

Threshold 6: Conflict with Alternative Transportation Policies and Plans

The project would not conflict with applicable policies or plans addressing alternative transportation; thus, no impact would occur.

5.3.5 Mitigation Measures

To mitigate the construction-related direct intersection impact to Medical Center Court/Main Hospital Driveway, the following shall be implemented:

TRAF-1 Prior to the issuance of any construction-related permits, such as a demolition or grading permit, the applicant shall prepare and implement a traffic control plan during the construction phase of the project. This plan may include construction personnel directing traffic, construction start/end times which avoid peak periods, and/or other traffic reducing measures. Ultimately, measures shall be included to regulate construction traffic flow to improve intersection operations to LOS D or better, to the satisfaction of the City Traffic Engineer.

To mitigate the direct operational impact to the Medical Center Court: East of Medical Center Drive street segment in the existing + project, near-term + project, and long-term + project conditions, the following measure shall be implemented:

TRAF-2 Prior to the issuance of occupancy permits for the Ocean View Tower, the applicant shall provide eastbound left turn lanes at the Veterans Home Driveway and the West Hospital Loop Road and restripe Medical Center Court between the West Hospital Loop Road and the Main Hospital Driveway to provide a two-way left-turn lane (Figures 5.3-7a and b). Medical Center Court is currently 38 feet wide, and could accommodate two 14-foot through lanes and a 10-foot two-way left-turn lane. Curbside parking along this segment is currently prohibited.

To mitigate the significant cumulative impacts identified at eight study intersections and five street segments in the existing + project, near-term + project, and long-term + project conditions, the following measure shall be implemented:

Source:Linscott Law & Greenspan

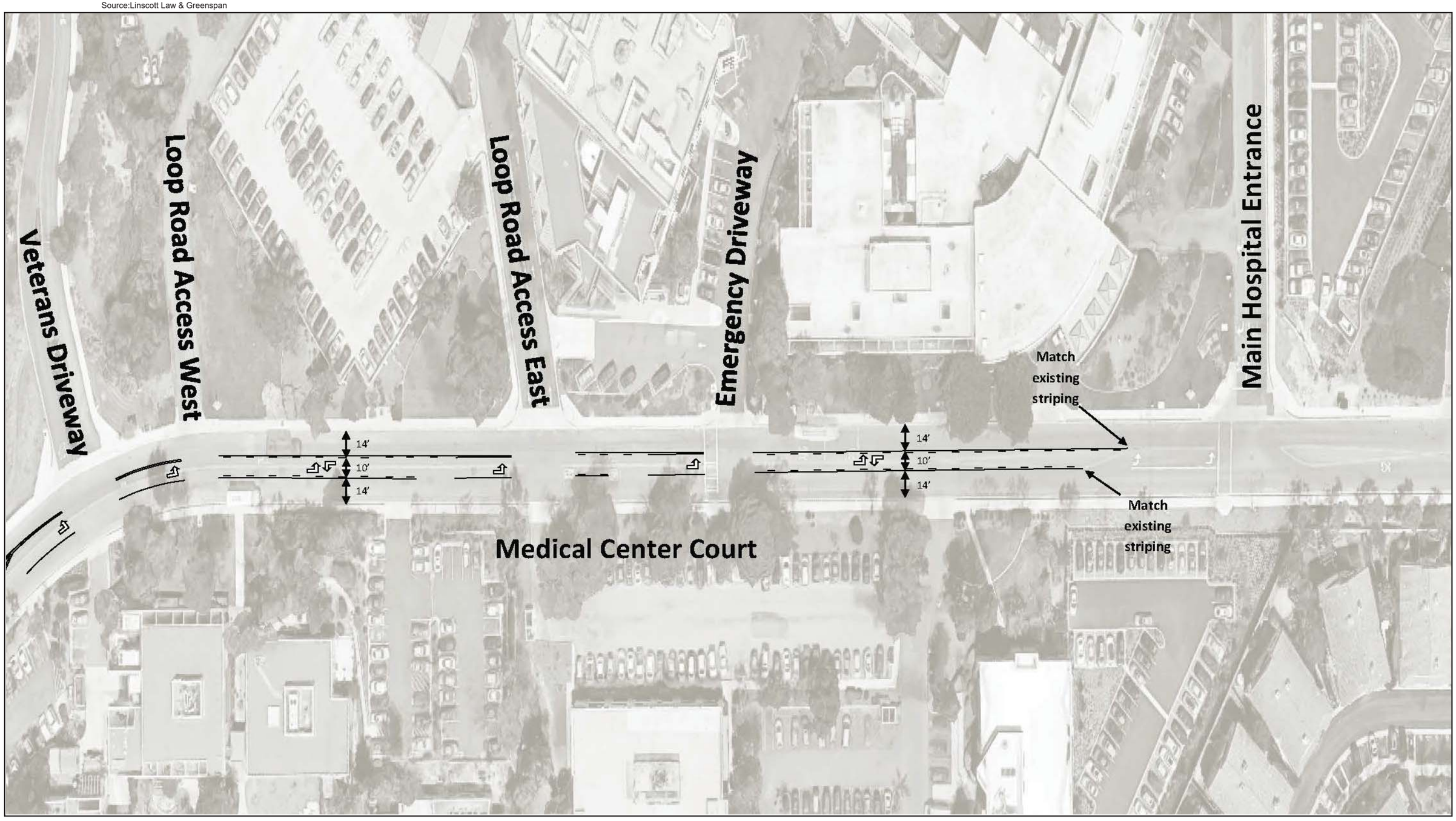

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FIGURE 5.3-7a
Medical Center Court Restriping Plan

Source:Linscott Law & Greenspan

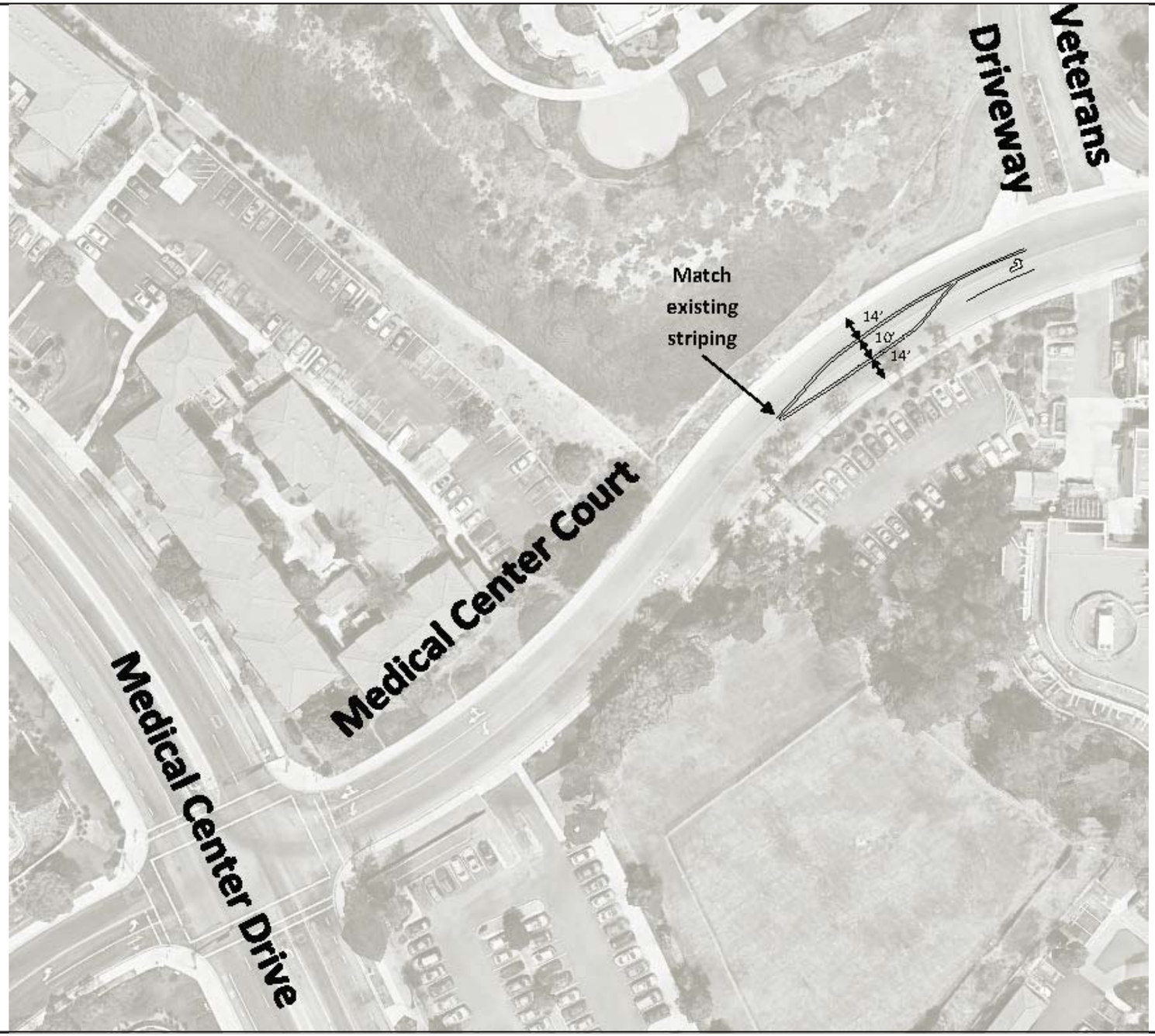

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FIGURE 5.3-7b
Medical Center Court Restriping Plan

TRAF-3 Prior to issuance of occupancy permits for the Ocean View Tower, the project applicant shall contribute to the City's Capital Project Fund in an amount determined by the City Manager or designee to be sufficient to mitigate the project's cumulative impacts. These funds would be used in conjunction with Transportation Development Impact Fee (TDIF) program funds to construct system improvements that address cumulative traffic impacts.

5.3.6 Level of Significance after Mitigation

Medical Center Court/Main Hospital Driveway

Intersection Impact (Direct)

The potential direct intersection impact at the hospital driveway would only occur during the construction phase of the project. Thus, implementation of TRAF-1 that requires the control of construction traffic at the project driveway would mitigate this temporary impact to below a level of significance.

Medical Center Court: East of Medical Center Drive Roadway Segments Impact (Direct)

The project's direct impact to the Medical Center Court: East of Medical Center Drive street segment would be mitigated though implementation of TRAF-2. The measure would require installation of eastbound left turn lanes at the Veterans Home Driveway and the West Hospital Loop Road and restriping of Medical Center Court between the West Hospital Loop Road and the Main Hospital Driveway to provide a two-way left-turn lane. These improvements would reduce the impact to less than significant. Thus, the project's direct impact to Medical Center Court: East of Medical Center Drive would be mitigated to below a level of significance with the implementation of TRAF-2.

Cumulative Impacts to Intersections and Street Segments

The City's TDIF program is intended to mitigate for cumulative intersection and roadway impacts for new development in the Eastern Territories of the City. This program includes improvements to intersection and roadways throughout the City where a need for such improvements has been identified in the Circulation Element of the city's General Plan. However, this fee does not apply to the project since the project would not expand the hospital beyond its current parcel limits. Thus, the City's TDIF does not apply to the project. Additionally, the project would accommodate existing and future trips that would occur due to growth in the surrounding community that increases the demand for hospitals. As previously described, the project would reduce the number of ambulances that are currently diverted to out of area hospitals by increasing capacity at the medical center and would increase the capacity at the facility allowing more patients to use medical services within their community rather than traveling further distances.

Thus, in order to mitigate for the project's cumulative impacts in a manner that would be "roughly proportional" to the cumulative impact level as specified in the CEQA Guidelines Section 15126.4(a)(4)(B), the project applicant shall contribute to the City's Capital Project Fund in an amount determined by the City to be sufficient to mitigate the project's cumulative impacts. These funds would be used in conjunction with TDIF program funds to construct system improvements that address cumulative traffic impacts. With payment into the City's Capital Project Fund as specified in TRAF-3, cumulative impacts to study area intersections and roadway segments would be reduced to a less than significant level.

5.4 Air Quality

This section addresses the potential air quality impacts resulting from construction and operation of the project. The discussion is based on the Air Quality Analysis prepared for the project by RECON. The analysis is attached as Appendix C and the relevant contents are summarized below.

5.4.1 Existing Conditions

The City is located within the San Diego Air Basin (SDAB), one of 15 air basins that geographically divide the state of California. The SDAB is currently classified as a federal nonattainment area for ozone and a state nonattainment area for ozone, particulate matter less than 10 microns (PM_{10}), and particulate matter less than 2.5 microns ($PM_{2.5}$) as discussed in more detail in the following subsections.

5.4.1.1 Existing Air Quality

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 CARB or federal standards set by the U.S. EPA. The SDAPCD maintains 10 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 two miles northwest of the project site, is the nearest station to the project area. The Chula Vista monitoring station measures ozone, NO_2, PM_{10}, and $PM_{2.5.}$ Table 5.4-1 provides a summary of measurements of ozone, NO_2, PM_{10}, and $PM_{2.5}$ collected at the Chula Vista monitoring station for the years 2010 through 2014.

TABLE 5.4-1
SUMMARY OF AIR QUALITY MEASUREMENTS RECORDED AT THE CHULA VISTA MONITORING STATION

Pollutant/Standard	2010	2011	2012	2013	2014
Ozone					
Days State 1-hour Standard Exceeded (0.09 ppm)	1	0	0	0	0
Days State 8-hour Standard Exceeded (0.07 ppm)	3	0	1	0	1
Days Federal 8-hour Standard Exceeded (0.075 ppm)	2	0	1	0	0
Max. 1-hr (ppm)	0.107	0.083	0.085	0.073	0.093
Max 8-hr (ppm)	0.083	0.057	0.079	0.063	0.072
Nitrogen Dioxide					
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
Max 1-hr (ppm)	0.050	0.057	0.057	0.057	0.055
Annual Average (ppm)	0.012	0.012	0.011	0.011	0.011
PM_{10}*					
Measured Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	0	0	0	0	0
Calculated Days State 24-hour Standard Exceeded (50 $\mu g/m^3$)	0.0	0.0	0.0	0.0	0.0
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
Max. Daily ($\mu g/m^3$)	45.0	46.0	38.0	40.0	39.0
State Annual Average ($\mu g/m^3$)	24.6	21.9	21.5	23.7	23.4
Federal Annual Average ($\mu g/m^3$)	24.0	21.5	21.0	22.7	22.9
$PM_{2.5}$*					
Measured Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	0	0	0	0	0
Calculated Days Federal 24-hour Standard Exceeded (35 $\mu g/m^3$)	Na	Na	0.0	0.0	0.0
Max. Daily ($\mu g/m^3$)	22.7	27.9	34.3	21.9	26.5
State Annual Average ($\mu g/m^3$)	Na	Na	Na	9.5	9.3
Federal Annual Average ($\mu g/m^3$)	Na	Na	10.2	9.4	9.2

SOURCE: CARB 2015b.
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter
Na = 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.

Ozone

Nitrogen oxides and hydrocarbons (reactive organic gases [ROG]) are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone, which is the primary air pollution problem in the SDAB. Because sunlight plays such an important role in its formation, ozone pollution—or smog—is mainly a concern during the daytime in summer months. The SDAB is currently designated a federal and state non-attainment area for ozone. During the past 25 years, San Diego

had experienced a decline in the number of days with unhealthy levels of ozone despite the region's growth in population and vehicle miles traveled (County of San Diego 2013).

About half of smog-forming emissions come from automobiles. Population growth in San Diego has resulted in a large increase in the number of automobiles expelling ozone-forming pollutants while operating on area roadways. In addition, the occasional transport of smog-filled air from the South Coast Air Basin only adds to the SDAB's ozone problem. Stricter automobile emission controls, including more efficient automobile engines, have played a large role in why ozone levels have steadily decreased.

In order to address adverse health effects due to prolonged exposure, the U.S. EPA phased out the national 1-hour ozone standard and replaced it with the more protective 8-hour ozone standard. The SDAB is currently a nonattainment area for the previous (1997) national 8-hour standard, and is recommended as a nonattainment area for the revised (2008) national 8-hour standard of 0.075 parts per million (ppm).

Not all of the ozone within the SDAB is derived from local sources. Under certain meteorological conditions, such as during Santa Ana wind events, ozone, and other pollutants are transported from the Los Angeles Basin and combine with ozone formed from local emission sources to produce elevated ozone levels in the SDAB.

Local agencies can control neither the source nor the transportation of pollutants from outside the air basin. The SDAPCD's policy, therefore, has been to control local sources effectively enough to reduce locally produced contamination to clean air standards. Through the use of air pollution control measures outlined in the RAQS, the SDAPCD has effectively reduced ozone levels in the SDAB.

Carbon Monoxide

The SDAB is classified as a state attainment area and as a federal maintenance area for CO. Until 2003, no violations of the state standard for CO had been recorded in the SDAB since 1991, and no violations of the national standard had been recorded in the SDAB since 1989. The violations that took place in 2003 were likely the result of massive wildfires that occurred throughout the county. No violations of the state or federal CO standards have occurred since 2003.

Small-scale, localized concentrations of CO above the state and national standards have the potential to 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 hot spots" and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

PM_{10}

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. Particulate matter is a complex mixture of very tiny solid or liquid particles composed of chemicals, soot, and dust. Sources of PM_{10} emissions in the SDAB consist mainly of urban activities, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere.

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. For several reasons hinging on the area's dry climate and coastal location, the SDAB has special difficulty in developing adequate tactics to meet present state particulate standards.

The SDAB is designated as federal unclassified and state nonattainment for PM_{10}. The measured federal PM_{10} standard was exceeded once in 2007, and once in 2008 in the SDAB. The 2007 exceedance occurred on October 21, 2007, at times when major wildfires were raging throughout the county. Consequently, this exceedance was likely caused by the wildfires and would be beyond the control of the SDAPCD. As such, this event is covered under the U.S. EPA's Natural Events Policy that permits, under certain circumstances, the exclusion of air quality data attributable to uncontrollable natural events (e.g., volcanic activity, wild land fires, and high wind events). The 2008 exceedance did not occur during wildfires and are not covered under this policy. No exceedances of the federal standard have occurred since 2008.

$PM_{2.5}$

Airborne, inhalable particles with aerodynamic diameters of 2.5 microns or less ($PM_{2.5}$) have been recognized as an air quality concern requiring regular monitoring. Federal $PM_{2.5}$ standards include an annual arithmetic mean of 15 micrograms per cubic meter ($\mu g/m^3$) and a 24-hour concentration of 35 $\mu g/m^3$. State $PM_{2.5}$ standards established in 2002 are an annual arithmetic mean of 12 $\mu g/m^3$.

The SDAB was classified as an attainment area for the previous federal 24-hour $PM_{2.5}$ standard of 65 $\mu g/m^3$ and has also been classified as an attainment area for the revised federal 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$ (U.S. EPA 2004 and 2009). The SDAB is a non-attainment area for the state $PM_{2.5}$ standard.

Other Criteria Pollutants

The national and state standards for NO_2, oxides of sulfur (SO_x), and the previous standard for lead are being met in the SDAB, and the latest pollutant trends suggest that

these standards will not be exceeded in the foreseeable future. As discussed above, new standards for these pollutants have been adopted, and new designations for the SDAB will be determined in the future. The SDAB is also in attainment of the state standards for vinyl chloride, hydrogen sulfides, sulfates, and visibility-reducing particulates.

5.4.1.2 Regulatory Framework

Federal Regulations

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. Environmental Protection Agency (U.S. EPA) developed primary and secondary National Ambient Air Quality Standards (NAAQS).

Six criteria pollutants of primary concern have been designated: ozone, carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and respirable particulate matter (which include particles 10 micrometers in diameter and smaller [PM_{10}] and particles 2.5 micrometers in diameter and smaller [$PM_{2.5}$]). The primary NAAQS ". . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . " and the secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 USC 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 5.4-2 (California Air Resources Board [CARB] 2015a). The SDAB is a nonattainment area for the federal ozone standards.

TABLE 5.4-2
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)[10]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[10]	–	
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 13	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.

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 parts per billion (ppb). California standards are in units of parts per million (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 nonattainment 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 parts per billion (ppb). California standards are in units of parts per million (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 ARB 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 nonattainment 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 2015a.

State Regulations

CRITERIA POLLUTANTS

The EPA allows states the option to develop different (stricter) standards. The state of California has developed the California Ambient Air Quality Standards (CAAQS) and generally has set more stringent limits on the criteria pollutants (see Table 5.4-2). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-

reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 5.4-2). 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 (Assembly Bill [AB] 2588, Connelly Bill) 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.

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.

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 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 San Diego Air Pollution Control District (SDAPCD) is responsible for preparing and implementing the portion of the SIP applicable to the SDAB. The SIP for San Diego County includes the Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County (2012), which is pending EPA approval, and the 2004 Revision to the California State Implementation Plan for Carbon Monoxide –

Updated Maintenance Plan for Ten Federal Planning Areas. The SDAPCD adopts rules, regulations, and programs to attain state and federal air quality standards, and appropriates money (including permit fees) to achieve these objectives.

Local Regulations

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 Strategy (RAQS) in response to the requirements set forth in the California CAA AB 2595 (County of San Diego 1992). Attached, as part of the RAQS, are the Transportation Control Measures (TCMs) for the air quality plan prepared by the San Diego Association of Governments (SANDAG). The RAQS and TCM set forth the steps needed to accomplish attainment of state AAQS. The required triennial updates of the RAQS and corresponding TCM were last adopted in 2009.

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.

The project would require an authority to construct and a permit to operate per the requirements of SDAPCD Rule 10 for each new source. This would include compliance with other pertinent SDAPCD rules that may include, but are not limited, to the following:

- Rule 20.1 – New Source Review – General Provisions;
- Rule 20.2 – New Source Review – Non-Major Stationary Sources;
- Rule 69.2 – Industrial and Commercial Boilers, Process Heaters and Steam Generators;
- Rule 69.3 – Stationary Gas Turbine Engines – Reasonably Available Control Technology;
- Rule 69.3.1 – Stationary Gas Turbine Engines – Best Available Retrofit Control Technology;
- Rule 69.4.1 – Stationary Reciprocating Internal Combustion Engines – Best Available Retrofit Control Technology;
- Rule 1200 – Toxic Air Contaminants – New Source Review; or
- Rule 1202 – Hexavalent Chromium – Cooling Towers.

Any new equipment would not be allowed to operate without the necessary SDAPCD permits. Permits would be subject to annual reviews and would require the preparation of health risk assessments (HRAs) demonstrating that impacts are less than one in a million excess cancer risk without use of Toxics Best Available Control Technology (T-BACT), or less than 10 in a million excess cancer risk with T-BACT.

CITY OF CHULA VISTA GENERAL PLAN

Objective E 6 of the City's General Plan contains multiple policies focused on the improvement of air quality.

Objective E 6

Improve local air quality by minimizing the production and emission of air pollutants and toxic air contaminants and limit the exposure of people to such pollutants.

Policies

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

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

E 6.3: Ensure that operational procedures of the City promote clean air by maximizing the use of low- and zero-emissions equipment and vehicles.

E 6.4: Avoid siting new or re-powered energy generation facilities and other major toxic air emitters within 1,000 feet of a sensitive receiver, or the placement of a sensitive receiver within 1,000 feet of a major toxic emitter.

E 6.5: Ensure that plans developed to meet the City's energy demand use the least polluting strategies, wherever practical. Conservation, clean renewables, and clean distributed generation should be considered as part of the City's energy plan, along with larger natural gas-fired plants.

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.

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.

E 6.8: Support the use of alternative fuel transit, City fleet and private vehicles in Chula Vista.

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.

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 California Environmental Quality Act (CEQA) review of the project. Attendant health risks identified in the Health Risk Assessment shall be feasibly mitigated to the maximum extent practicable, in accordance with CEQA, in order to help ensure that applicable federal and state standards are not exceeded.

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

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

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.

E 6.14: The City will implement a clean vehicle/alternative fuel program for City vehicles (except safety vehicles and equipment, when not feasible) and promote the development of infrastructure to support their use.

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

5.4.2 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines and South Coast Air Quality Management District's (SCAQMD) regulations, impacts related to air quality would be significant if the project would:

1. Obstruct or conflict with the implementation of the San Diego RAQS or applicable portions of the SIP.
2. Result in emissions that would 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 ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors).
4. Expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates.
5. Create objectionable odors affecting a substantial number of people.

Emissions resulting from implementation of the project would be due primarily to construction-generated emissions and traffic associated with daily operation. The City evaluates project emissions based on the quantitative emission thresholds established by the SCAQMD. The SCAQMD sets forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality. It should be noted that the use of these significance thresholds is conservative, as the SCAQMD's significance thresholds were originally based on the SCAB extreme ozone nonattainment status for the 1-hour NAAQS, whereas the SDAB was designated as an attainment area for the 1-hour NAAQS. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 5.4-3, City of Chula Vista Air Quality Significance Thresholds, are exceeded.

TABLE 5.4-3
CHULA VISTA AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Construction (pounds per day)	Operation (pounds per day)
NO_x	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_x	150	150
CO	550	550
Lead	3	3

SOURCE: SCAQMD 1993, 2006.

In addition to a comparison with the quantitative thresholds for regional emissions in Table 5.4-3, the project was evaluated for local air quality impacts, such as whether concentrations of carbon monoxide would exceed the NAAQS or CAAQS, consistency with assumptions of the SDAPCD RAQS, and potential odors impacts.

5.4.3 Impacts

Threshold 1: Plan Consistency

Threshold 1 states that significant impacts to air quality would occur if the project would conflict with or obstruct implementation of an applicable air quality plan.

The SIP is a collection of documents that set forth the state's strategies for achieving the NAAQS. The SDAB is designated nonattainment for the federal ozone standard. As discussed, the SIP plans for San Diego County specifically include the Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County (2012), which is pending U.S. EPA approval, and the 2004 Revision to the California State Implementation Plan for Carbon Monoxide – Updated Maintenance Plan for Ten Federal Planning Areas. Additionally, the California Clean Air Act requires areas that are designated as nonattainment of state ambient air quality standards for ozone,

CO, SO_2, and NO_2 to prepare and implement plans to attain the standards by the earliest practicable date. The SDAB is designated nonattainment for the state ozone standard. Accordingly, the RAQS was developed to identify feasible emission control measures and provide expeditious progress toward attaining the state standards for ozone, PM_{10}, and $PM_{2.5;}$ however, the California Clean Air Act only requires, in this case, a plan for ozone. The two pollutants addressed in the RAQS are ROG and NOx, 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 CARB mobile source emission projections and SANDAG growth projections are based on 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 be consistent with the RAQS and applicable portions of the SIP. 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 and applicable portions of the SIP. 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 and applicable portions of the SIP for the specific subregional area.

The project site is designated as PQ (Public and Quasi-Public) land use in the General Plan and is zoned as Administrative and Professional Office (C-O) and includes a P modifying district, which indicates that the project is subject to Precise Plan. The zoning designation is C-O-P. The project site is currently used as a hospital and the project would not alter that land use. While the proposed project would add new hospital beds, it would not generate any additional population nor would it encourage population growth in excess of what is considered in the RAQS and applicable portions of the SIP. As the project would be consistent with the General Plan land use designation and with the growth anticipated by the General Plan and SANDAG. The proposed project would therefore not interfere with implementation of the RAQS and applicable portions of the SIP, and impacts would be less than significant.

Threshold 2: Air Quality Violation

Threshold 2 states that significant impacts to air quality would occur if the project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Construction

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-related pollutants result from dust raised during demolition and grading, emissions from construction vehicles, and chemicals used during construction. Fugitive dust emissions vary greatly during construction and are dependent on the amount and type of activity, silt content of the soil, and the weather. Vehicles moving over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces are all sources of fugitive dust. Construction operations are subject to the requirements established in Regulation 4, Rules 52, 54, and 55, of the SDAPCD's rules and regulations.

Heavy-duty construction equipment is usually diesel powered. In general, emissions from diesel-powered equipment contain more NO_x, SO_x, and particulate matter than gasoline-powered engines. However, diesel-powered engines generally produce less CO and less ROG than do gasoline-powered engines. Standard construction equipment includes tractors/loaders/backhoes, rubber-tired dozers, excavators, graders, cranes, forklifts, rollers, paving equipment, generator sets, welders, cement and mortar mixers, and air compressors.

Emissions associated with construction of the project were calculated using the CalEEMod program using the inputs specified in Appendix C. Table 5.4-4 shows the total projected construction maximum daily emission levels for each criteria pollutant.

TABLE 5.4-4
SUMMARY OF WORST-CASE CONSTRUCTION EMISSIONS
(pounds per day)

	Pollutant					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
2016	3	31	22	0	2	2
2017	4	28	20	0	8	5
2018	3	22	19	0	2	1
2019	5	20	18	0	1	1
2020	5	11	12	0	1	1
Maximum Daily Emission	**5**	**31**	**22**	**0**	**8**	**5**
Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*

Standard dust control measures would be implemented as a part of project construction in accordance with SDAPCD rules and regulations. Fugitive dust emissions were calculated using CalEEMod default values, and did not take into account the required dust control measures. Thus, the emissions shown in Table 5.4-4 are conservative.

For assessing the significance of the air quality emissions resulting during construction of the project, the construction emissions were compared to the trigger levels shown in Table 5.4-4. As shown, maximum daily construction emissions are projected to be less than the applicable thresholds for all criteria pollutants.

Operation

Mobile source emissions would originate from traffic generated by the project. Area source emissions would result from activities such as the use of natural gas and consumer products. In addition, landscaping maintenance activities associated with the proposed land uses would produce pollutant emissions.

Table 5.4-5 provides a summary of the operational emissions generated by the project (see Appendix C for model inputs). As shown, project-generated emissions are projected to be less than the significance thresholds for all criteria pollutants.

TABLE 5.4-5
SUMMARY OF PROJECT OPERATIONAL EMISSIONS
(pounds per day)

	Pollutant					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Sources[1]	5	3	2	0	0	0
Mobile Sources	8	12	64	0	10	3
Total[2]	13	15	66	0	10	3
Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*

[1]CalEEMod calculates emissions due to area and energy sources. These emissions were combined and are reported together as area sources in this table.
[2]Totals may vary due to independent rounding.

Stationary Source Emissions

The project proposes the installation of new mechanical equipment including boilers, chillers, a cooling tower, air handling units, and an emergency generator. The analysis of potential air quality impacts presented here only addresses those pieces of equipment that are a part of the project that would generate air emissions, which would be the boilers and emergency generator. The cooling tower would generate minimal amounts of PM_{10}. As discussed previously, the cooling tower must comply with the requirements of SDAPCD Rule 1202 and, thus, is not anticipated to generate substantial amounts of air pollutant or toxic emissions.

Table 5.4-6 summarizes the total daily emissions due to the boilers and emergency generator as well as the project's other operational emissions. As shown, combined emissions are projected to be less than the significance thresholds for all criteria pollutants.

TABLE 5.4-6
SUMMARY OF TOTAL PROJECT STATIONARY AND OPERATIONAL EMISSIONS
(pounds per day)

	Pollutant					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Mobile and Area Sources*	13	15	66	0	10	3
Boilers	0	7	2	0	3	3
Emergency Generator	0	4	0	1	0	0
Total	**13**	**26**	**68**	**1**	**13**	**6**
Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
*See Table 5.4-5.						

Threshold 3: Criteria Pollutants

Threshold 3 states that significant impacts to air quality would occur if the project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

The region is classified as attainment for all criterion pollutants except ozone, PM_{10}, and $PM_{2.5}$. The SDAB is nonattainment for the 8-hour federal and 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 5.4-4 through 5.4-6, emissions of ozone precursors (ROG and NO_X), PM_{10}, and $PM_{2.5}$ from construction, operation, and stationary equipment 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 $PM_{2.5}$.

Threshold 4: Sensitive Receptors

Threshold 4 states that significant impacts to air quality would occur if the project would expose sensitive receptors to substantial pollutant concentrations.

CO 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. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses.

According to the *Transportation Project-level Carbon Monoxide Protocol* (CO protocol) (University of California, Davis 1997), the three worst intersections would require detailed modeling in order to determine if the CO emissions exceeded the thresholds. If one of the intersections fail then the next worse intersection would be modeled until it is determined that all remaining intersections would not exceed the NAAQS or CAAQS. The three worst intersections were chosen based on traffic volumes, delay, and intersection configuration. Based on a review of these intersections, the following three intersections are included in the detailed modeling:

- East Palomar Street and Heritage Road;
- Olympic Parkway at the I-805 southbound ramps; and
- Olympic Parkway at the I-805 northbound ramps.

The results of the modeling for these intersections are summarized in Table 5.4-7.

Table 5.4-7
MAXIMUM CO CONCENTRATIONS
(ppm)

	Operation Year (2020)		Cumulative (2035)		Standard CAAQS/ NAAQS	
Roadway	1-Hour Conc.	8-Hour Conc.*	1-Hour Conc.	8-Hour Conc.*	1-Hour	8-Hour*
E Palomar Street and Heritage Road	3.2	2.2	3.2	2.2	20/35	9.0/9
Olympic Parkway at the I-805 southbound ramps	3.3	2.3	3.3	2.3		
Olympic Parkway at the I-805 northbound ramps	3.3	2.3	3.4	2.4		
*8-hour concentrations developed based on a 0.7 persistence factor.						

As shown in Table 5.4-7, the maximum 1-hour and 8-hour concentrations of CO would occur at the intersection of Olympic Parkway and the Interstate 805 northbound ramps and would be 3.4 ppm and 2.4 ppm, respectively. These concentrations are less than the CAAQS and NAAQS. All other intersections would carry less peak hour traffic and experience shorter delays the analyzed intersections. Thus, it can be concluded that CO concentrations at these intersections would be less than the CO concentrations shown in Table 5.4-7. There would be no harmful concentrations of CO as localized air quality emissions would not exceed applicable standards with implementation of the project; therefore, sensitive receptors would not be exposed to substantial pollutant concentrations.

Construction – Diesel Particulate Matter

Short-term project-generated emissions of diesel PM would result from the exhaust of off-road heavy-duty diesel equipment used for site grading and paving. The dose to

which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TACs emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, because the use of off-road heavy-duty diesel equipment would be temporary, short in duration when compared to 30 years, and in combination with the highly dispersive properties of diesel PM beyond 300 feet (Zhu et al. 2002), project-generated, construction-related emissions of TACs would not expose off-site sensitive receptors to substantial emissions of TACs and the impact would be less than significant.

Stationary Equipment

The project proposes the installation of new mechanical equipment including boilers, chillers, a cooling tower, air handling units, and an emergency generator. These sources would be subject to the requirements of SDAPCD Rule 1200. Under SDACPD Rule 1200 the project would be required to prepare a Health Risk Assessment to demonstrate that impacts are less than 1 in a million excess cancer risk without use of T-BACT, or less than 10 in a million excess cancer risk with T-BACT. TAC emission sources are also be required to obtain a permit to construct and operate from the SDAPCD. The Health Risk Assessment demonstrating the risk associated with the new sources would be required prior to issuance of these permits. Thus, TAC impacts associated with the project itself would be less than significant.

Threshold 5: Odors

Threshold 5 states that significant impacts to air quality would occur if the project would result in objectionable odors.

The project would involve the use of diesel-powered construction equipment. Diesel exhaust may be noticeable temporarily at adjacent properties; however, construction activities would be temporary. The project does not include industrial or agricultural uses that are typically associated with objectionable odors. Therefore, this impact would be less than significant.

5.4.4 Level of Significance Prior to Mitigation

Threshold 1: Plan Consistency

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.

Threshold 2: Air Quality Violation

As shown in Tables 5.4-4 through 5.4.-6, 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.

Threshold 3: Criteria Pollutants

As shown in Tables 5.4-4 through 5.4-6, 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

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.

Threshold 5: Odors

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

5.4.5 Mitigation Measures

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

5.5 Greenhouse Gas

This section addresses the potential greenhouse gas (GHG) impacts resulting from construction and operation of the project. The discussion is based on the Greenhouse Gas Analysis prepared for the project by RECON. The analysis is attached as Appendix D and the relevant contents are summarized below.

5.5.1 Existing Conditions

5.5.1.1 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.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This, in turn, has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in the earth's atmosphere. Recently observed increased concentrations of GHGs in the atmosphere appear to be related to increases in human activity. Therefore, the current cycle of "global warming" is believed to be largely due to human activity. Of late, the issue of global warming or global climate change has arguably become the most important and widely debated environmental issue in the United States and the world. 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. Carbon dioxide would be emitted by uses allowed under the proposed project 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.

The potential of a gas to trap heat and warm the atmosphere is measured by its "global warming potential" or GWP. The potential of a gas to contribute to global warming is limited by the time it is in the atmosphere, its "atmospheric lifetime." Because of its relative abundance in the atmosphere and its relatively long atmospheric lifetime, carbon dioxide has been designated the reference gas for comparing GWPs. Thus, the 100-year GWP of CO_2 is equal to 1.

5.5.1.2 Existing GHG Emissions

State and Regional GHG Inventories

STATE GHG INVENTORY

The California Air Resources Board (CARB) performs statewide inventories (Table 5.5-1). 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 of CO_2 equivalent (MMT CO_2E).

TABLE 5.5-1
CALIFORNIA GHG EMISSIONS BY SECTOR IN 1990, 2008, AND 2012

Sector	1990[1] Emissions in MMT CO_2E (% total)[2]	2008[3] Emissions in MMT CO_2E (% total)[2]	2012[3] Emissions in MMT CO_2E (% total)[2]
Sources			
Agriculture	23.4 (5%)	37.99 (7%)	37.86 (7%)
Commercial	14.4 (3%)	13.37 (3%)	14.20 (3%)
Electricity Generation	110.6 (26%)	120.15 (25%)	95.09 (19%)
High GWP	--	12.87 (2%)	18.41 (3%)
Industrial	103.0 (24%)	87.54 (18%)	89.16 (21%)
Recycling and Waste	--	8.09 (1%)	8.49 (2%)
Residential	29.7 (7%)	29.07 (6%)	28.09 (7%)
Transportation	150.7 (35%)	178.02 (37%)	167.38 (38%)
Forestry (Net CO_2 flux)[4]	-6.69	--	--
Not Specified[4]	1.27	--	--
TOTAL	**426.6**[1]	**487.10**	**458.68**

SOURCE: CARB 2007 and 2014b.
[1]1990 data was retrieved from the CARB 2007 source and are based on Intergovernmental Panel on Climate Change (IPCC) second assessment report GWPs. The revised calculation, which uses the scientifically updated IPCC fourth assessment report GWPs, is 431 MMT CO_2E.
[2]Percentages may not total 100 due to rounding.
[3]2008 and 2012 data was retrieved from the CARB 2014b source.
[4]Reported emissions for key sectors. The inventory totals for 2008 and 2012 did not include Forestry or Not Specified sources.

As shown, statewide GHG source emissions totaled about 427 MMT CO_2E in 1990, 487 MMT CO_2E in 2008, and 459 MMT CO_2E in 2012. 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. Since preparation of the 2012 GHG inventory, multiple GHG emission reduction measures that have been adopted by CARB have taken effect. A year 2015 GHG emission inventory is not yet available. According to CARB, most of the reductions since 2008 have been driven by economic factors (recession), previous energy-efficiency actions, and the renewable portfolio standard (CARB 2014b). Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

REGIONAL GHG INVENTORY

As part of the City's Climate Action Program, 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, and 2012 are summarized in Table 5.5-2.

TABLE 5.5-2
CITY OF CHULA VISTA COMMUNITY GHG EMISSIONS IN 1990, 2005, AND 2012

Source	1990 Emissions (MT CO_2E)	2005 Emissions (MT CO_2E)	2012 Emissions (MT CO_2E)	% Change (2012 vs. 1990)	% Change (2012 vs. 2005)
Transportation	335,435	313,011	393,333	17%	26%
Energy Use – Residential	197,115	247,559	264,170	34%	7%
Energy Use – Commercial	71,363	182,951	202,721	184%	11%
Energy Use – Industrial	123,128	41,670	30,391	-75%	-27%
Energy Use – Total	391,606	472,180	497,282	27%	5%
Solid Waste	78,539	85,039	62,504	-20%	-26%
Potable Water (embedded energy)	NA	46,951	40,643	NA	-13%
Waste Water	9,607	15,457	17,719	84%	15%
TOTAL Emissions	**815,186**	**932,638**	**1,011,481**	**24%**	**8%**

SOURCE: City of Chula Vista 2012.

PROJECT SITE GHG EMISSIONS

The Sharp Chula Vista Hospital currently exists. However, the portion of the campus where the Ocean View Tower would be constructed is not currently developed with any structures and while used for parking and loading activities, it is not a substantial source of GHG emissions.

5.5.1.3 Regulatory Framework

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the international, national, and state levels with the aim of reducing GHG emissions. The following is a discussion of the federal, state, and local plans and regulations most applicable to the project.

Federal Regulations

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 is a joint program of the 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 2013, which provides information on exceptional products that represent the leading edge in energy-efficient products in 2013 (U.S. EPA 2013).

The U.S. EPA also partners 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 2014).

State Regulations

The State of California has a number of policies and regulations that are either directly or indirectly related to GHG emissions. Only those most relevant to the project are included in this discussion.

EO S-3-05 – STATEWIDE GHG EMISSION TARGETS

This executive order (EO), essentially the executive branch's managerial policy statements, established the following GHG emission 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 Environmental Protection Agency 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. The report must also include 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, established the executive branch's interim GHG emission reduction goal for the state of California of 40 percent below 1990 levels by 2030. This EO also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the long-term 2050 goal identified in EO S-3-05. Additionally, this EO directed the CARB to update its Climate Change Scoping Plan to address the 2030 goal. Therefore, in the coming months, 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. AB 32 requires 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 business as usual (BAU) emissions in 2020 to the state's historic 1990 emissions level (CARB 2008).

Most recently, in 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (2014 Scoping Pan) (CARB 2014a). 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 2014a). The 2014 Scoping Plan found that California is on track to meet the 2020 emissions reduction

mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals (CARB 2014a).

CALIFORNIA ADVANCED CLEAN CARS PROGRAM

The Advanced Clean Cars Program, adopted January 2012, combines the control of smog, soot-causing pollutants, and GHG emissions into a single coordinated package of requirements for model years 2015 through 2025. Accordingly, the Advanced Clean Cars Program coordinates the goals of the Pavley, low-emissions vehicle (LEV), zero-emission vehicle, and Clean Fuels Outlet programs in order to lay the foundation for the commercialization and support of these ultra-clean vehicles.

AB 1493 (Pavley) directed CARB to adopt vehicle standards that lowered GHG emissions from passenger vehicles and light-duty trucks to the maximum extent technologically feasible, beginning with the 2009 model year. CARB has adopted amendments to its regulations that would enforce AB 1493, but provide vehicle manufacturers with new compliance flexibility.

CARB has also adopted a second phase of the Pavley regulations, originally termed "Pavley II" but now called the Low Emission Vehicle III" (LEV III) Standards or Advanced Clean Cars Program, that covers model years 2017 to 2025. CARB estimates that LEV III will reduce vehicle GHGs by an additional 4.0 million metric tons of CO_2 equivalent (MMT CO_2E) for a 2.4 percent reduction over Pavley I. These reductions come from improved vehicle technologies such as smaller engines with superchargers, continuously variable transmissions, and hybrid electric drives. On August 7, 2012, the final regulation for the adoption of LEV III became effective.

LOW CARBON FUEL STANDARD

EO S-01-07 directed that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 with a 2010 baseline through a Low Carbon Fuel Standard (LCFS). LCFS promotes the use of GHG reducing transportation fuels, e.g., liquid biofuels, renewable natural gas, electricity, and hydrogen, through a declining carbon intensity standard. The carbon intensity of a fuel is a measure of the GHG emissions associated with the production, distribution, and consumption of a fuel. CARB approved LCFS in 2009 and implemented it in 2010 as an early action measure under AB 32. Subsequently, CARB approved amendments to the LCFS, which began implementation on January 1, 2013. Due to a court ruling that found procedural issues related to the original adoption of the LCFS, CARB re-adopted the LCFS regulation in September 2015, which went into effect on January 1, 2016. The program establishes a strong framework to promote the low carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG goals (CARB 2016).

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, Senate Bill (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.

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.

Part 6 – Energy Efficiency Standards

The California Code of Regulations, 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 California Energy Commission (CEC). By reducing California's energy consumption, emissions of statewide GHGs may also be reduced.

The current version of the Energy Code, known as the 2013 Energy Code, became effective on July 1, 2014. The 2013 Energy Code provides mandatory energy-efficiency measures as well as voluntary tiers for increased energy efficiency. Based on an impact analysis prepared by the CEC for non-residential structures, the 2013 Energy Code has been estimated to achieve a 21.8 percent increase in electricity efficiencies and a 16.8 percent increase in natural gas efficiencies over the 2008 Energy Code (CEC 2013).

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 2013 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 relevant to the project require:

- 20 percent reduction in indoor water use relative to specified baseline levels;
- 50 percent construction/demolition waste diverted from landfills;
- Inspections of energy systems to ensure optimal working efficiency; and
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

Local Regulations

On November 14, 2000, the City of Chula Vista adopted and implemented the first CO_2 Reduction Plan, also referred to as the City's Climate Action Plan, which 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). The 2005 GHG emissions inventory was the first formal evaluation of the City's progress in reaching its emissions goals, and the inventory has since been updated. The CO_2 reduction measures included in the CO_2 Reduction Plan focus on Transportation Control Measures (TCMs); land use patterns; clean transportation fuels; and residential, commercial, and industrial building efficiencies. The original CO_2 Reduction Plan has been revised to incorporate the City's Climate Mitigation Plans (City of Chula Vista 2008) and Climate Adaptation Plans (City of Chula Vista 2011).

CLIMATE MITIGATION PLANS

In 2007, a Chula Vista Climate Change Working Group (CCWG) developed recommendations to reduce the community's GHG emissions in order to meet the City's 2010 GHG emission reduction goals. Seven measures were adopted by the City in 2008. These measures are summarized in Table 5.5-3.

TABLE 5.5-3
CITY OF CHULA VISTA CLIMATE MITIGATION PLANS

Strategy	Performance Strategy
100 Percent Clean Vehicle Replacement Policy for City Fleet	Replace vehicles through the purchase or lease of alternative fuel and hybrid vehicles.
100 Percent Clean Vehicle Replacement Policy for City-Contracted Fleet Services	Work with current and future vendors to include a "Clean Vehicle" replacement policy into the bid and contracting process.
Business Energy Assessments	Through an ordinance addition, encourage businesses to participate in a no cost assessment as part of the business licensing process.
Green Building Strategy	Through a building code revision, require new and renovated buildings to increase their energy efficiency and meet state-wide green building standards.
Solar and Energy Efficiency Conversion	Provide a cost-effective, streamlined mechanism for property owners to implement solar- and energy-efficiency upgrades and create a municipal code requiring pre-wiring for solar electric systems.
Smart Growth Around Trolley Stations	Implement the smart growth design principles outlined in municipal planning documents.
Outdoor Water Conservation	Provide a cost-effective, streamlined mechanism for installing water-saving plants at private/public sites and create new municipal landscape regulations.
SOURCE: City of Chula Vista 2008.	

CLIMATE ADAPTATION PLANS

In 2008, the Chula Vista CCWG developed 11 strategies to adapt the community to impacts within energy and water supply, public health, wildfires, ecosystem management, coastal infrastructure, and the local economy sectors. The 11 adaptation strategies and a description of the City's approach are summarized in Table 5.5-4.

TABLE 5.5-4
CITY OF CHULA VISTA CLIMATE ADAPTATION STRATEGIES

Strategy	Performance Strategy
Strategy 1 – Cool Paving	o Perform a comprehensive study to evaluate and test multiple reflective pavement technologies. o Develop options, based on the study's results, for incorporating cool pavement technologies into municipal capital improvement and development parking lot standards.
Strategy 2 – Shade Trees	o Develop a shade tree policy for future City Council consideration. o Amend the Municipal Landscape Manual to be consistent with the new policy. o Ensure that the Design Manual is consistent with the new policy.
Strategy 3 – Cool Roofs	o Further evaluate cool roofing options and propose amendments to municipal building codes to incorporate cool roofs for new residential developments with air-conditioning systems. o Further the CCWG's suggestion to provide cool roofing incentives and offer recommendations for future City Council consideration.
Strategy 4 – Local Water Supply and Reuse	o Evaluate and propose municipal building code amendments to incorporate single-source gray water "stub-outs" in new residential buildings and indoor recycled water in new commercial buildings. o Develop an educational guide for the general public about proper use of gray water systems o Create an incentive (using external funding sources) to promote on-site water reuse. o Update the City's water-related plans to reference and promote recycled water and on-site water reuse systems.
Strategy 5 – Storm Water Pollution Prevention and Reuse	o Update municipal codes to prohibit landscape runoff flowing into storm drains and receiving water bodies. o Develop new guidelines to promote the reuse of pipe flushing water at construction sites. o Create incentives to reward Low Impact Development projects which capture and reuse storm water on-site. o Investigate opportunities for broader reuse of storm water via the City's conveyance system.
Strategy 6 – Education and Wildfires and Strategy 7 – Extreme Heat Plans	o Leverage municipal and partner agencies' outreach mechanisms to broaden wildfire education in the community. o Revise the City's existing Emergency Response Plan and the Multi-Jurisdictional Hazard Mitigation Plan to include extreme heat events. o Establish an extreme heat and poor air quality notification system for residents and businesses.
Strategy 8 – Open Space Management	o Update the Otay Ranch Preserve Monitoring and Plans to actively manage and mitigate these impacts. o Amend the Otay Valley Regional Park Concept Plan to ensure climate change impacts are considered into future park development and management. o Continue the City's transition to low water use landscaping within medians, parks, and open space areas.
Strategy 9 – Wetlands Preservation	o Evaluate the feasibility of monitoring local wetlands species ranges and abundances in response to climate change impacts. o Incorporate wetlands "migration" in habitat management and restoration design criteria in the future Bayfront Natural Resources Management Plan. o Revise the Otay Valley Regional Park's Habitat Restoration Plan and Non-native Plant Removal Guidelines to include strategies for climate change adaptation issues.

TABLE 5.5-4
CITY OF CHULA VISTA CLIMATE ADAPTATION STRATEGIES

Strategy	Performance Strategy
Strategy 10 – Sea Level Rise and Land Development Codes	o Revise its grading ordinance to consider a project's vulnerability to future sea level rise and flooding events. o Modify its Subdivision Manual to ensure that storm water/drainage infrastructure can address future sea level rise and flooding impacts. o Ensure that environmental review and California Environmental Quality Act (CEQA) procedures are consistent with these changes.
Strategy 11 – Green Economy	o Revise the municipal purchasing policy to more robustly promote the procurement of "green" products and services, and to give preference for purchases from local Chula Vista businesses. o Revise existing environmental outreach programs to businesses to include recommendations on how to reduce future climate change risks. o Continue to pursue the recruitment and retention of "green" businesses and manufacturers in Chula Vista.

SOURCE: City of Chula Vista 2011.

5.5.2 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to greenhouse gas 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).

A stationary source is one with an identified emission point or points, often associated with industrial processes. Stationary sources typically include facilities with cogeneration, boilers, flares, and heaters. Single facilities can have many individual emission points. Many of these types of facilities would require an air quality permit from the San Diego Air Pollution Control District (SDAPCD). The permit issued by SDAPCD would normally include certain permit conditions. Facilities that are subject to SDAPCD permits may be required to implement Toxic Best Available Control Technology (T-BACT) or Best Available Control Measures (BACM). T-BACT or BACM may include equipment or operational thresholds to reduce air pollutant emissions, which can also affect GHG emissions. In this incident, the single greatest emission source would be proposed boilers; therefore, the project is considered a stationary source for evaluating GHG emissions.

For projects including a stationary source, emissions calculations must also include construction emissions and operational emissions associated with mobile sources, electricity use, water delivery, and other non-stationary sources associated with the facility to ensure all GHG emissions are included in the evaluation.

For the purposes of this analysis, the project would have a cumulatively considerable GHG impact if it would result in a net increase of GHG emissions, either directly or indirectly, at a level exceeding 10,000 MT CO_2E annually. This threshold would capture the vast majority of stationary source emissions. This is also the threshold at which the state requires facilities to report GHG emissions under the 2013 Mandatory Greenhouse Gas Reporting Regulation. The 10,000 MT CO_2E threshold is based on evaluation performed by various air districts on permitted sources, and sets a significance threshold that would capture more than 90 percent of GHG emissions. This stationary source threshold has been adopted by the South Coast Air Quality Management District (SCAQMD) and the San Luis Obispo County Air Pollution Control District. Based on information collected from the SDAPCD on permitted sources, the 10,000 MT CO_2E threshold would capture more than 90 percent of GHG emissions (County of San Diego 2012).

5.5.3 Impacts

Threshold 1: GHG Emissions

Threshold 1 states that significant impacts to GHG would occur if the project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG emissions associated with construction and operation of the project were estimated using the California Emissions Estimator Model (CalEEMod) (CAPCOA 2013). In brief, the model estimates criteria air pollutants and GHG emissions by multiplying emission source intensity factors by estimated quantities of emission sources based on the land use information. All CalEEMod estimates are in terms of total MT CO_2E. GHG emissions associated with stationary equipment were calculated using U.S. EPA AP 42 emission factors.

As the project site is currently undeveloped, the project would result in an obvious change to the existing GHG emissions from the existing condition. As climate change is occurring on a global scale, it is not meaningful or possible to quantify the scientific effect of new GHG emissions caused by a single project or whether a project's net increase in GHG emissions, when coupled with other activities in the region, is cumulatively considerable. The Sacramento Metropolitan Air Quality Management District (SMAQMD) has recognized "that there is no known level of emissions that determines if a single project will substantially impact overall GHG emission levels in the atmosphere" (SMAQMD 2014).

Additionally, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has concluded, "existing science is inadequate to support quantification of impacts that project specific GHG emissions have on global climatic change" (SJVAPCD 2009). There is no scientific or regulatory consensus regarding what particular quantity of GHG emissions is considered significant, and there remains no applicable, adopted numeric threshold for assessing the significance of a project's emissions. Indeed, unlike criteria pollutants, GHG emissions and climate change are not localized effects, and their magnitude cannot be quantified locally (CAPCOA 2008). Thus, an increase of GHG emissions alone is not a sufficiently informative or reliable indicator of the significance of the project's GHG emissions. Therefore, the impact of project GHG emissions is based on a stationary source GHG emission threshold of 10,000 MT CO_2E annually.

The primary sources of direct and indirect GHG emissions have been calculated as detailed in the Greenhouse Gas Analysis prepared for the project (see Appendix D) and summarized below:

Construction – 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 equipment was calculated using the CalEEMod defaults for each phase. Emissions were amortized over 30 years, the approximately lifetime of a project, and added to operational emissions in order to provide annual emission rate over the lifetime of a project (South Coast Air Quality Management District 2009).

Stationary Sources – The project would include three Cleaver Brooks ClearFire®-LC 10,000 high-efficiency, low NO_x, condensing boilers. Only one of the three boilers would typically operate a majority of the time. A second boiler would provide additional capacity as necessary during extreme weather days to maintain room temperatures. The third boiler is required as a standby unit under the building code. It would not operate unless one of the other boilers failed, i.e., at no time would all three boilers be operating. Emissions due to the boilers were calculated based on the full operation of a single boiler (100 percent) and partial operation of a second boiler during the day (20 percent), which is proportional to a three at 40 percent of the total capacity 24 hours per day. This would be equivalent to one boiler operating at 100 percent capacity and a second boiler operating approximately 20 percent of the time. All GHG emission calculations are based on U.S. EPA AP-42 emission factors.

Area Sources – 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).

Energy Use – GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. Energy consumption values are based on the CEC-sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies, which identify energy use by building type and climate zone. Because these studies are based on older buildings, adjustments have been made in CalEEMod to account for changes to Title 24 building codes. Calculations also took into account the continuing effects of RPS through 2020.

Vehicles – Vehicle trip generation rates were based on the project traffic report, which identified a rate of 20 trips per bed. An average regional trip length of 5.8 miles for urban areas was used to determine vehicle miles traveled (VMT) based on SANDAG regional data (SANDAG 2014). Vehicle emission calculations took into account Pavley I (Clean Car Standards), LEV III, and the Low Carbon Fuel Standard.

Solid 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. The project was credited an additional 25 percent reduction due to the waste reduction requirements for medical facilities.

Water – The project would be subject to 2013 Title 24 Part 11 standards, known as CalGreen. Thus, in order to demonstrate compliance with CalGreen, a 20 percent increase in indoor water use efficiency was included in the water consumption calculations for the project. Because emissions are a result of the energy used to supply, distribute, and treat the water and wastewater, calculations also took into account the continuing effects of RPS through 2020.

Table 5.5-5 summarizes the project emissions.

TABLE 5.5-5
PROJECT GHG EMISSIONS
(MT CO_2E per year)

Emission Source	Project GHG Emissions
Area	0
Energy	1,293
Vehicles	1,428
Solid Waste	137
Water Use	50
Construction	34
Boilers	5,621
TOTAL	**8,565**
NOTE: Totals may vary due to independent rounding	

As shown, the project would result in a total of 8,565 MT CO_2E per year. The level of impacts associated with contribution of GHGs to cumulative statewide emissions would be less than significant as project emissions would be less than the 10,000 MT CO_2E threshold.

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

Threshold 2 states that significant impacts to GHG would occur if the project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

The following analysis considers whether the project would conflict with policies, plans, or regulations. Thus, the question is not whether the GHG emissions from the project would be controlled by regulations to the extent they are not considered significant, but rather whether the project would result in a conflict that would create a situation where the goals of the plan, policy, or regulation could not be achieved.

EO S-3-05 established GHG emission reduction targets for the state, and AB 32 codified the 2020 goal of EO S-3-05 and launched the Climate Change Scoping Plan (CARB 2008) that outlined the reduction measures needed to reach these targets. Subsequent to the adoption of AB 32 and the development of the Scoping Plan, several levels of government have implemented regulatory programs to reduce GHG emissions. State agencies, including CARB, CEC, California Public Utilities Commission, the Department of Resources Recycling and Recovery, the Department of Transportation, the Department of Forestry and Fire Protection, the Department of Water Resources, the Department of Food and Agriculture, and the Department of Goods and Services have developed regulatory and incentive programs to reduce GHG emissions. Many of the measures are generally beyond the ability of any future development to affect as these measures, such as RPS, are implanted at the utility provider or the manufacturer level. However, the project would not conflict with these measures nor block their implementation. The project would achieve mobile source reductions from the state's implementation of regulations that increase fuel efficiency and reduce GHG emissions from mobile sources. Additionally, compliance with 2013 Title 24 regulations would reduce GHG emissions associated with energy and water use. Therefore, the project would not conflict with the state reduction targets for transportation, energy, and other emissions associated with land use and development, and would not conflict with the Scoping Plan.

As discussed in Section 3.2.2.1, EO S-3-05 establishes an executive policy of reducing GHG emissions to 80 percent below 1990 levels by 2050. Additionally, EO B-30-15 establishes an interim GHG emission reduction policy by the executive branch for the state of California to reduce GHG emissions 40 percent below 1990 levels by 2030. The 2020 GHG emission policy of EO S-3-05, to reduce GHG emissions to 1990 levels by 2020, was codified by the Legislature's adoption of AB 32. As discussed above, the project would be consistent with the reduction goals of AB 32. The 2050 goal of EO S-3-05 was not codified by the Legislature. Similarly, EO B-30-15's goal to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030 has not been codified by the Legislature. Nonetheless, because these two EOs represent a GHG reduction policy in

the context of CEQA and the strong interest in California's post-2020 climate policy, this analysis renders a determination as to whether the project would conflict with or impede substantial progress towards the statewide reduction policies established by EO B-30-15 for 2030 and by EO S-3-05 for 2050.

The City relies, in part, on CARB's expertise to conclude that the project does not interfere with the state's efforts to achieve the 2030 and 2050 targets. CARB notes in the First Update to the Scoping Plan that "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014a). With regard to the 2030 and 2050 targets, the First Update to the Scoping Plan states (CARB 2014a, Greenblatt 2013):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts [MW] of renewable distributed energy by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2030, could lead to even greater emission reductions.

In other words, CARB's expert opinion is that the state is on a trajectory to meet the 2020, 2030, and 2050 GHG reduction targets set forth in AB 32, Executive Order B-30-15 and Executive Order S-3-05.

As illustrated above, the project would emit less than 10,000 MT CO_2E annually. Further, the project's 2020 emissions totals represent the maximum emissions inventory for the project; as project emissions would continue to decline from 2020 through at least 2050 based on regulatory forecasting. Emission reductions beyond 2020 would occur because of continuing implementation of regulations that further increase vehicle fuel efficiency and reduce GHG emissions from mobile sources, and the continuing procurement of renewable energy sources to meet RPS goals through year 2030. Given the reasonably anticipated decline in project emissions once fully constructed and operational, the project is in line with the GHG reductions needed to achieve the EOs' interim (2030) and horizon-year (2050) goals. Therefore, the project would not conflict with the long-term GHG policy goals of the state. As such, the project's impacts with respect to EO B-30-15 and EO S-3-05 are expected to be less than significant.

5.5.4 Level of Significance Prior to Mitigation

Threshold 1: GHG Emissions

As the project would result in less than 10,000 MT CO_2E annually, the level of impacts associated with contribution of GHGs to cumulative statewide emissions would be less than significant.

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

The project would not conflict with any local or state plan, policy, or regulation aimed at reducing GHG emissions from land development. Therefore, the project's overall contribution to cumulative GHG emissions would be less than significant.

5.5.5 Mitigation Measures

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

5.6 Geology and Soils

This section addresses the potential for the project to result in impacts related to geology and soils issues. Leighton Consulting, Inc. prepared several geotechnical investigations to assess the geotechnical conditions, including a Geotechnical Investigation on July 18, 2013; a Site-Specific Ground Motion Response Spectra letter report on July 29, 2015; an Update Foundation Capacity Design Recommendations letter report on August 3, 2015; and a Geotechnical Investigation for the project entrance on December 18, 2015. These reports are included in this EIR as Appendices E-1 through E-4. The analysis which follows is based on the results of these geotechnical reports.

5.6.1 Existing Conditions

5.6.1.1 Existing Geology and Soils

Geologic Setting

The project site is located in the coastal section of the Peninsular Range Province, a geomorphic province with a long and active geologic history throughout southern California. Throughout the last 54 million years, the area known as the "San Diego Embayment" has undergone several episodes of marine inundation and subsequent marine regression, resulting in the deposition of a thick sequence of marine and non-marine sedimentary rocks on the basement rock of the southern California batholith.

The Peninsular Ranges Province is traversed by a group of sub-parallel faults and fault zones trending roughly northwest. Several of these faults are major active faults. The Whittier-Elsinore, San Jacinto, and San Andreas faults are major active fault systems located northeast of the study area and the Agua Blanca-Coronado Bank and San Clemente faults are active faults located west of the project area.

Geologic Materials

Site reconnaissance, including boring and trenchings, determined the existence of two surficial soil types and two geologic formations within the study area. The study area includes the entire proposed project parcel and the immediate adjacent areas, which is larger than the project footprint in order to capture the adjacent geologic conditions that could affect the project site. Each of the surficial soil types and geologic units mapped on-site is described below.

Undocumented Fill (Afu): Fill soils were placed during the initial mass grading of the site in the 1970s, and later in the 1980s and 1990s. Fills deeper than 5 feet are located in the northwestern portion of the site. Fill soils generally consist of brown to dark brown, dry to moist, loose to medium dense, silty sands.

Topsoil and Colluvium: Localized occurrences of topsoil and colluvium exist on-site. These units are generally light brown and ranged to dark brown, dry to wet, loose to medium dense, porous, silty sands with abundant rootlets. Generally, the contact of these units with the underlying bedrock units was sharp and irregular. Topsoil and colluvium thicknesses ranges from less than a foot to up to 5 feet, with a lack of consolidation and cementation.

Very Old Paralic Deposits (Qvop): This unit is located in the upper portions of the site only near the helicopter pad. The Very Old Paralic Deposits are middle to early Pleistocene in age and correlate to the Lindavista Formation. This deposit generally consists of light to medium brown silty sandstone with scattered interbedded cobble-gravel conglomerate and coarse-grained sandstone, dry to damp, very dense. Locally light reddish brown zones are present.

San Diego Formation (Tsdss): The San Diego Formation on-site generally consists of fine- to locally medium-grained sandstones. The sandstones are light brown to light olive brown, damp to moist, dense to very dense, slightly cemented and friable to very friable. Cemented layers were located within the site entryway area (see Appendix E-3). The San Diego Formation is early Pleistocene to Pliocene in age.

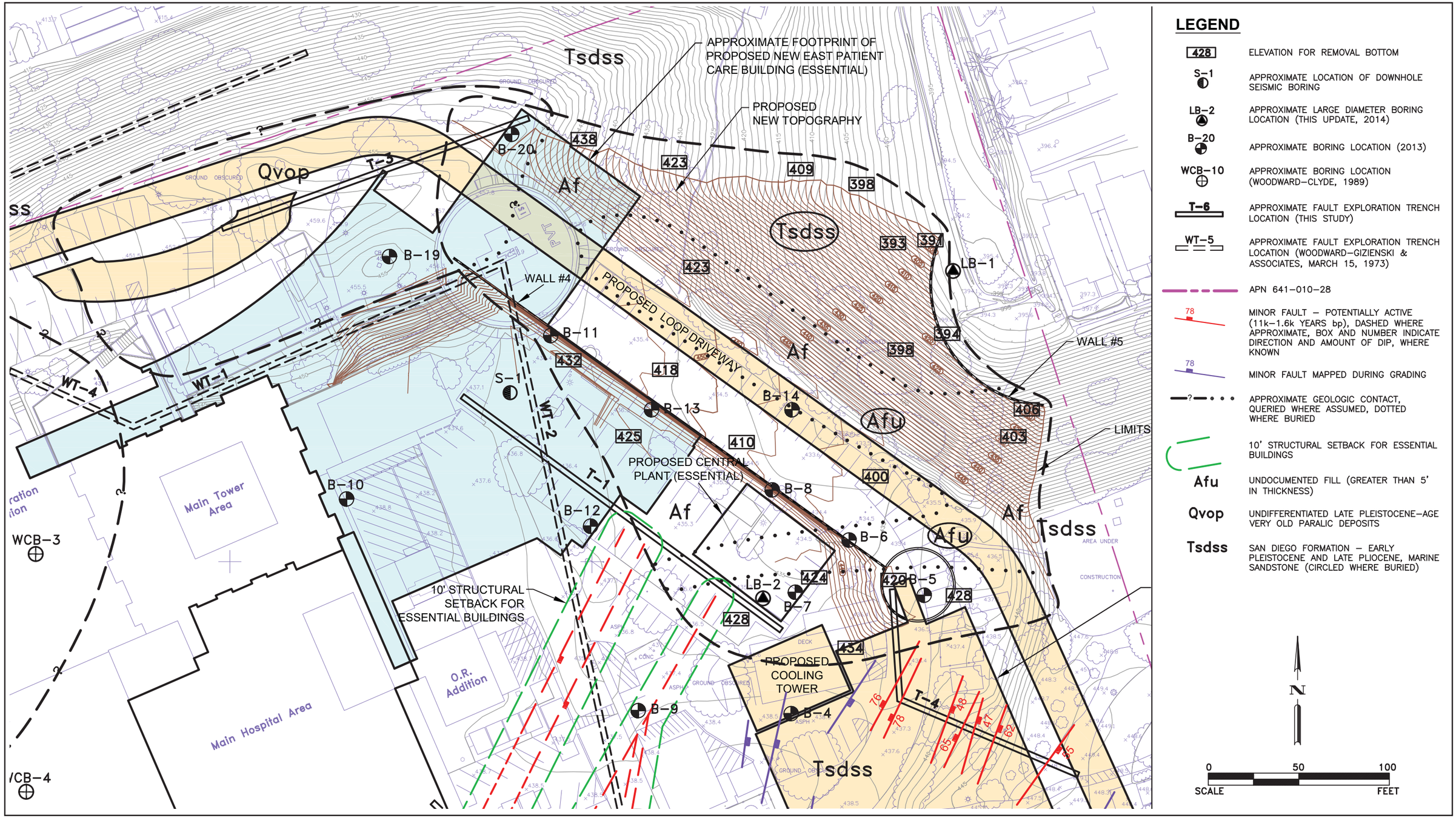
Geologic Hazards

FAULTING AND SEISMICITY

The site is located in the seismically active southern California area. A faulting analysis was completed to determine the potential for seismic issues at the site. There are two categories of faults: active faults and potentially active faults. Active faults are defined as faults that have experienced surface displacement within Holocene time (approximately the last 11,000 years), while potentially active faults are faults with displacement during Quaternary time (approximately the last 1,600,000 years). The active fault with the highest potential for significant seismic activity in the San Diego region is the Rose Canyon fault zone located approximately 7.5 miles west of the site. Based on computer modeling, the maximum historical site acceleration is 0.16g.

The La Nación fault zone extends through the City as well, and is located within approximately 800 feet of the project site. While La Nación is not an active fault, the site is transected by several minor and discontinuous northeast trending faults (Figure 5.6-1). These faults are all less than 200 feet long, with the exception of one. These faults have a low risk for surface fault hazard. In addition, lurching or cracking of the ground surface as a result of nearby or distant seismic events is unlikely (see Appendix E-1).

Source:Leighton



LEGEND

428	ELEVATION FOR REMOVAL BOTTOM
S–1	APPROXIMATE LOCATION OF DOWNHOLE SEISMIC BORING
LB–2	APPROXIMATE LARGE DIAMETER BORING LOCATION (THIS UPDATE, 2014)
B–20	APPROXIMATE BORING LOCATION (2013)
WCB–10	APPROXIMATE BORING LOCATION (WOODWARD–CLYDE, 1989)
T–6	APPROXIMATE FAULT EXPLORATION TRENCH LOCATION (THIS STUDY)
WT–5	APPROXIMATE FAULT EXPLORATION TRENCH LOCATION (WOODWARD–GIZIENSKI & ASSOCIATES, MARCH 15, 1973)
	APN 641–010–28
78	MINOR FAULT – POTENTIALLY ACTIVE (11k–1.6k YEARS bp), DASHED WHERE APPROXIMATE, BOX AND NUMBER INDICATE DIRECTION AND AMOUNT OF DIP, WHERE KNOWN
78	MINOR FAULT MAPPED DURING GRADING
?– – –	APPROXIMATE GEOLOGIC CONTACT, QUERIED WHERE ASSUMED, DOTTED WHERE BURIED
	10' STRUCTURAL SETBACK FOR ESSENTIAL BUILDINGS
Afu	UNDOCUMENTED FILL (GREATER THAN 5' IN THICKNESS)
Qvop	UNDIFFERENTIATED LATE PLEISTOCENE–AGE VERY OLD PARALIC DEPOSITS
Tsdss	SAN DIEGO FORMATION – EARLY PLEISTOCENE AND LATE PLIOCENE, MARINE SANDSTONE (CIRCLED WHERE BURIED)

RECON

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FIGURE 5.6-1
Geologic Conditions

EXPANSIVE SOILS

Expansive soils are those that are capable of undergoing significant volume changes (shrink or swell) due to variations to moisture content. Where expansive soils exist, changes in moisture content can cause unacceptable ground settlement or heaving. Highly expansive soils were not observed at the site during soil testing. However, localized clayey soils were observed during testing. These soils have an expansion index classified as medium.

LIQUEFACTION AND SEISMICALLY-INDUCED SETTLEMENT

Liquefaction is the loss of soil strength or stiffness due to a buildup of excess pore-water pressure during strong ground shaking. Liquefaction is associated primarily with loose (low density), granular, saturated soil. Effects of severe liquefaction can include sand boils, excessive settlement, bearing capacity failures, and lateral spreading.

Due to an absence of a shallow ground water table and the presence of loose to medium dense fine-grained silty sandy and clayey fill materials underlain by very dense San Diego sandstone and claystone materials, the potential for liquefaction at the site is low. In addition, the site is not located within a mapped liquefaction hazard zone. Dynamic settlement of soils can occur as a result of strong vibratory ground shaking. Due to the dense nature of the underlying San Diego Formation, the potential for dynamic settlement is considered to be low within these units.

LANDSLIDES AND SLOPE STABILITY

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 site during the field exploration or the review of available geologic literature. However, based on an open-file report from the California Geological Survey in 1995, the site is mapped as being “generally susceptible” to landslides.

5.6.1.2 Regulatory Framework

Development of the project is subject to a number of regulatory requirements and industry standards related to potential geologic and soil hazards. Geologic and soil requirements and standards typically involve measures to evaluate risk and minimize potential hazards through design and construction techniques. Summary descriptions of these state regulatory guidelines are provided below.

California Building Code

The 2013 California Building Code (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).

5.6.2 Thresholds of Significance

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

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction; or
    - Landslides.
2. Result in substantial erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
4. Be located on expansive soil, as defined by Building Code, 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.

5.6.3 Impacts

Threshold 1: Exposure to Seismic-Related Hazards

Known Earthquake Faults

As previously detailed, the project site is transected by several minor and discontinuous northeast-trending faults associated with the La Nación fault zone. Exploration trenches were dug as part of the geotechnical studies. Based on those results, it was concluded that the faults transecting the site do not constitute a surface rupture hazard. Therefore, the potential for ground rupture due to faulting at the site is considered low.

However, based on previously contrasting results concerning the recency of movement along the La Nación fault zone, the geotechnical studies recommended that essential facilities maintain a setback distance from the mapped fault traces. The design of the project has incorporated this measure, and all essential facilities have been setback from the mapped fault traces. Therefore, impacts associated with surface rupture would be less than significant.

Strong seismic ground shaking

Earthquakes that might occur on the Rose Canyon fault zone or other faults within the southern California and northern Baja California area are potential generators of significant ground motion at the site. As previously discussed, the Rose Canyon fault zone is located approximately 7.5 miles west of the project site.

To accommodate effects of ground shaking produced by regional seismic events, seismic design can be performed in accordance with the 2013 CBC. The CBC sets forth methods to determine site-specific seismic response spectra and design parameters, which have been developed for the project (see Appendix E-2). As previously detailed, the project must also comply with SB 1953 requirements that are enforced by OSHPD. For example, the project is required to submit all design plans that would be subject to the approval of OSHPD. The proposed project would be constructed in accordance with applicable regulatory requirements, which would reduce 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

According to the Geotechnical investigation, the potential for liquefaction and seismically induced settlement occurring within the project site is considered to be low due to the absence of a shallow ground water table and the presence of dense fill materials (i.e., the San Diego Formation). Seismically induced settlement may occur whether the potential for liquefaction exists or not. Although there is potential for seismic-related ground failure to occur, compliance with current seismic design specifications, CBC

standards, and OSHPD requirements would ensure that impacts associated with seismic-related ground failure would be less than significant.

Landslides

As previously described, no landslides or indications of deep-seated landsliding were indicated at the site during the field exploration or the review of available geologic literature. However, based on an open-file report from the California Geological Survey in 1995, the site is mapped as being "generally susceptible" to landslides. Therefore, a slope stability analysis was conducted as part of the Geotechnical Investigation.

As detailed in the geotechnical investigation, based on the observations of the cut and natural slopes within a portion of the site and elsewhere across the site, there was no indication of slope failures. In addition, only slight sloughing along the toes of any of these slopes was observed. Elsewhere, slightly sloping to moderately sloping natural topography also had no indication of slope failures. Therefore, compliance with current seismic design specifications, CBC standards, and OSHPD requirements would ensure that impacts associated with seismic-related ground failure would be less than significant.

Threshold 2: Soil Erosion

Construction Impacts

Excavation and ground-disturbing activities during construction of the proposed 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 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.

Prior to construction, a site-specific stormwater pollution prevention plan (SWPPP) shall be prepared in accordance with the State Water Resources Control Board (SWRCB) Construction General Permit. The SWPPP shall describe best management practices (BMPs) to be used during and after construction to prevent discharge of sediment and other pollutants in storm water runoff from the project site. The BMPs would provide erosion and sedimentation control through measures such as silt fences, fiber rolls, or gravel bags. Earth-disturbing activities associated with construction would be temporary and compliance with the General Construction Permit and BMPs outlined in the SWPPP would ensure that impacts related to soil erosion and the loss of topsoil would be less than significant.

Operational Impacts

Potential erosion would be minimized by following items listed in the erosion control plan (part of the rough grading plans). In addition, BMPs such as minimizing soil compaction in landscaped areas, soil amendments, and protection of slopes, would help reduce any potential erosion. With the implementation of BMPs and proposed drainage facilities outlined in Section 5.7, Hydrology and Water Quality, impacts related to soil erosion and the loss of topsoil would be less than significant.

Threshold 3: Soil Stability

As previously discussed under Threshold 1, all essential facilities have been designed with at least the minimum setback from the mapped fault traces. Surface ground cracking or lateral spreading related to shaking from distant events is not considered a significant hazard. The potential for liquefaction and seismically induced settlement occurring within the project site is considered to be low due to the dense nature of proposed fill and the dense nature of the formational materials. Compliance with current seismic design specifications, CBC standards, and other regulatory requirements would ensure that the proposed project would have less than significant impacts associated with soil stability and associated geologic hazards.

Threshold 4: Expansive Soils

According to the Geotechnical Investigation (see Appendix E-1), based on field observations, subsurface investigation, and laboratory testing, no highly expansive soils were observed at the site. However, localized more clayey expansive soils were observed in an area of the project site at 10–15 feet below the ground surface. An expansion index test performed on representative clayey soils at the site indicated a classification of “medium.” The Geotechnical Investigation contains recommendations that shall be incorporated into the design of the project. Therefore, adherence to design recommendations and other regulatory requirements would ensure that potential impacts related to expansive soils would be less than significant.

Threshold 5: Septic Systems

The project site is currently serviced by a sewer system, which would also serve the proposed project. Therefore, no impact would occur.

5.6.4 Level of Significance Prior to Mitigation

The project would be setback at least 10 feet from mapped fault traces, thereby ensuring that potential surface rupture hazards would be less than significant. The project would also comply with current seismic design specifications, CBC standards, and OSHPD requirements in order to ensure that potential impacts related to geological hazards and soil stability would be less than significant. Preparation of a SWPPP and implementation

of BMPs would ensure that potential soil erosion impacts would be less than significant. The project would also be required to ensure that the medium expansive soils on-site are not present where the foundations for buildings would be installed. Thus, impacts related to geology and soils would be less than significant.

5.6.5 Mitigation Measures

As the project would not result in significant impacts related to geology and soils, no mitigation measures are required.

5.7 Hazards and Risks of Upset

This section addresses the potential for the project to result in impacts related to hazards or hazardous materials.

5.7.1 Existing Conditions

5.7.1.1 Existing Hazards Setting

The 2.47-acre project area is a flat parking lot and loading dock. Portions of the site were recently graded in order to complete the Loop Road, landscaping, and other improvements associated with the "Make Ready" phase of the Master Plan. At the time that the "make ready" improvements occurred, there were no known Recognized Environmental Conditions (RECs) and the site has not historically been used to store or handle hazardous substances. The site is 3.75 miles from the nearest airport (Brown Field Municipal Airport) and is not within the airport's influence area. Previously, the site contained a helipad, but it was demolished during the make ready phase and a replacement is not anticipated. The project site lies within the larger Sharp Chula Vista Medical Center parcel. The healthcare industry is heavily regulated and the existing hospital operates 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 bio-hazards, "sharps," radioactive and other medical waste.

5.7.1.2 Regulatory Framework

Numerous federal, state, and local laws and regulations regarding hazardous materials have been developed with the intent of protecting public health, the environment, surface water, and groundwater resources. Over the years, the laws and regulations have evolved to deal with different aspects of the handling, treatment, storage, and disposal of hazardous substances. Applicable regulatory agencies have also kept records on hazardous materials storage, use, and disposal, and make these lists publicly available. The most relevant federal, state, and local regulations are described below.

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. Title 40 California Code of Regulations (CCR), Part 290 establishes technical standards and corrective action requirements for owners and operators of underground storage tanks (USTs) under RCRA.

State

CALIFORNIA EPA

The California EPA (Cal EPA) and the State Water Resources Control Board (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 Department of Toxic Substances Control (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 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 Department of Toxic and Substance Control 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

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 Occupational Safety and Health Act (OSHA) and EPA regulations.

The OSHA/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.

2013 CALIFORNIA FIRE CODE

The 2013 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 2013 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's Municipal Code adopts the 2013 California Fire Code.

FIRE HAZARD SEVERITY ZONES

To assist each fire agency in addressing its responsibility area, 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). In January 2008, Cal Fire updated these Fire Hazard Severity Zone maps to reflect revised VHFHSZ for LRAs throughout the state.

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 City of Chula Vista Municipal Code provides regulations regarding fire prevention in the City and adopts the California Fire Code. The Fire Hazard Severity Zone map is adopted through City Code Chapter 15.34.

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.

In 1989, the California state legislature passed a law called Assembly Bill (AB) 3205 and was incorporated into Section 65850.2 of the California Government Code. The bill 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.

City of Chula Vista

MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

In 2010, the County and 18 local jurisdictions, including the City of Chula Vista, adopted the Multi-Jurisdictional Hazard Mitigation Plan (MHMP). The MHMP is a countywide plan that identifies risks and ways to minimize damage by natural and manmade disasters. The MHMP is a comprehensive document that serves many purposes, including 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 City of Chula Vista identified the following hazards within the MHMP, based on their probability and potential impact:

- **Wildfire/Structure Fire** – A significant number of Chula Vista residents live within the wildland-urban interface consisting of steep canyon areas and naturalized open space.
- **Geologic (Earthquake, Landslide, Liquefaction)** – Addressed in Section 5.6.
- **Hazardous Materials Release/Rail Disaster Spills** – There are a number of stationary locations of hazardous materials located primarily west of Interstate 805 and are, therefore, not applicable to the Ocean View Tower site.
- **Floods/Dam Inundation** – Addressed in Section 5.8.
- **Other Manmade Hazards (Airplane Crashes)** – The City of Chula Vista is within the flight path of Lindbergh Field, Brown Field, Tijuana Airport, Ream Field, and North Island Naval Station. Although the potential for an airplane crash upon take-off or approach is low, the potential hazard is collectively significant.

The City of Chula Vista specific hazard mitigation goals, objectives, and related potential actions are included in the MHMP (County of San Diego Office of Emergency Services and Unified Disaster Council 2010).

CITY OF CHULA VISTA GENERAL PLAN

The following City of Chula Vista's General Plan objectives related to hazards are listed below:

- Minimize the risk of injury and property damage associated with wildland fire hazards.
- Ensure the adequate remediation of contaminated sites as redevelopment occurs in order to protect public health and safety.
- Minimize the use of toxic products by residents and small businesses and facilitate the proper disposal of household hazardous waste.

- Maintain the ability to establish hazardous waste storage, collection, treatment, disposal, and transfer facilities to serve the needs of Chula Vista industry and businesses within appropriate locations of the City, while ensuring adequate protection of the community.
- 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.

Sharp Healthcare

HIGH RELIABILITY ORGANIZATION

Sharp is currently working on becoming a High Reliability Organization (HRO). A HRO is a grassroots way of reorganizing systems that are already in place by accomplishing goals to avoid potentially catastrophic errors. There are five guidelines relevant to an HRO and are summarized by the following:

1. Sensitive to operations (transparency) - each employee pays close attention to operations and maintains awareness through improved communication and data sharing.

2. Prevent over-simplification by finding the specific source of the problem.

3. De-stigmatize failure by encouraging employees to come forward with near-misses and focus on the processes that work best.

4. Work to find ways in which each employee, regardless of hierarchy, can provide input in order to make the organization better.

5. Resilience, despite failure, lead to problem solving skills that helps prevent catastrophes.

5.7.2 Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, impacts related to hazardous issues 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 for people residing or working in the project area?

6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

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

8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

5.7.3 Impacts

Threshold 1: Hazardous Materials Transport, Use, and Storage

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 hospital would continue 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 will be prescribed in the HMBP and RMP. Additionally, routine hospital operations require the safe handling of bio-hazards, medical and radioactive waste that are detailed below.

Bio-hazardous 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 bio-hazards 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 (Title 22 California Code of Regulations Sections

65600-65628 [non-consecutive]), and by the San Diego County Department of Environmental Health, 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 hospital will not treat or incinerate medical waste on-site, but will process such waste for transportation, using licensed transporters. Much like the current protocol for the existing hospital, bio-hazard waste and sharps will 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 will be disposed of at an off-site permitted facility.

Similarly, the operation of x-ray equipment and other radiation producing equipment will generate low-level radioactive waste. The project would operate in accordance with the Radiation Control Law (Health and Safety Code Sections 114960 et seq.), the Radiologic Technology Act (Health and Safety Code Section 27(f)), Nuclear Medicine Technology Certification (Health and Safety Code Sections 107150-107175), and regulations implementing the above laws (Title 17, California Code of Regulations Division 1, Chapter 5, Subchapters 4.0, 4.5, and 4.6), which laws and regulations are administered and enforced by the California Department of Public Health Radiologic Health Branch.

In summary, applicable federal, state, and local laws governing the transportation, use, handling, storage, management, and disposal of hazardous materials and waste, bio-hazards, 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. The potential for impacts relative to hospital-related operational hazards would not rise to a level of significance.

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 (Title 8 of the California Code of Regulations Sections 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.

Threshold 2: Hazard from Risk of Upset

The HMBP and RMP prescribed under applicable laws described above would ensure prevention and awareness in the event of a catastrophe involving hazardous materials release. Other plans, described in the City of Chula Vista chapter in the Multi-Jurisdictional Hazards Mitigation Plan (MJHMP) and the General Plan identify the risks of a hazardous event and the steps involved to react and mitigate for such catastrophic events. Additionally, the building is designed to reduce the transmission of infection and bio-hazards, for example, by providing separate beds for each room and placing the cafeteria on its own separate floor. Sharp's migration into a HRO is also a way of preventing or reducing mistakes that can equal great harm, especially in the healthcare industry where the stakes are very high. Required preparation of, and compliance with, plans including but not limited to the HMBP, RMP, MJHMP would ensure that the risk of upset is less than significant.

Threshold 3: Hazard located near existing or proposed school

There are four schools located less than one mile from the proposed project: La Petite Preschool and Hedencamp, Parkview, and Rogers elementary schools. These schools are located approximately 0.90, 0.5, 0.70, and 0.75 mile, respectively, north, southeast, southwest, and west of the project site. None of the above-mentioned schools are located within one-quarter of a mile, and as noted previously, the project would adhere to regulatory requirements regarding all forms of handling, storage, and disposal of hazardous chemicals including bio-hazardous and radioactive waste. The project would not expose schools or school-aged youth to hazardous materials and substances. Therefore, impacts would be less than significant.

Threshold 4: Known Hazardous Materials

The Sharp Ocean View Tower project area is currently used as loading docks and for parking, and the land has been recently graded as part of the "make ready" phase. According to the SWRCB GeoTracker database, along with the California DTSC EnviroStor database, the project site and vicinity (one-mile radius) would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Impacts would be less than significant.

Threshold 5: Airport Safety Hazard

The project site is located 3.75 miles northwest of the Brown Field Municipal Airport. The project site is surrounded by existing development and is not located within the airport's influence area based on Figure 9-13 of the City's General Plan (2005) and the Brown Field Airport Land Use Compatibility Plan (San Diego County Regional Airport Authority 2010). Thus, the project would not result in a safety hazard for sensitive receptors in the project area, and no impact related to airport hazards would occur.

Threshold 6: Private Airstrip Safety Hazard

The project site is not located within the vicinity of a private airstrip, and while the proposed Ocean View Tower location supported a helipad in the past, it has been removed and demolished. There are no helicopter landing facilities in existence within the project site; nor are any proposed. No impact would occur.

Threshold 7: Interfere with Safety Plans

The proposed 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 hospital campus is surrounded by evacuation routes located on Telegraph Canyon Road which is 0.25 mile north, and East Palomar Street, which is 0.35 mile south of the hospital campus (City of Chula Vista 2005). The Ocean View Tower would be directly linked to these evacuation routes via Medical Center Drive and Medical Center Court. 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.

Threshold 8: 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. No impact would occur.

5.7.4 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. There is also day-to-day handling of biohazardous materials containing certain infectious agents such as bacteria, viruses, and other pathogens; as well as medical wastes including biohazards and "sharps," such as needles, razor blades, broken glass generated from the diagnosis, treatment, or immunization of human beings.

However, the healthcare industry is heavily regulated and preparation of plans such as the HMBP, RMP, and MHMP, 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.

Other hazards related to airports, wildland fire, construction, and/or exposure to schools would be less than significant.

5.7.5 Mitigation Measures

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

5.8 Hydrology and Water Quality

This section describes the hydrologic setting within the project area and evaluates the potential for changes in drainage, runoff, and water quality resulting from implementation of the proposed project. This analysis is based on the January 28, 2016 Hydrology and Hydraulic Study (Appendix F-1) and Major Stormwater Management Plan for Sharp Health Chula Vista Medical Center (Appendix F-2) prepared by Michael Baker International.

5.8.1 Existing Conditions

5.8.1.1 Existing Hydrology and Water Quality

Surface Water

This project lies within the Otay Valley Hydrologic Area of the Otay Hydrologic Unit and is part of the Otay River watershed. The Otay River watershed is approximately 160 square miles in southwest San Diego County that is largely unincorporated, but also includes portions of the City of Chula Vista. Predominant land uses in the watershed are open space and urban/residential. The major waterbodies include the Upper and Lower Otay reservoirs, Otay River, and the San Diego Bay. The Otay River itself is 25 miles long beginning at San Miguel Mountain, through the Upper and Lower Otay reservoirs, travelling west through Chula Vista, and discharges out of the river's mouth at San Diego Bay.

Ground Water

All the major drainage basins in the San Diego region contain ground water basins. The Otay ground water basin is generally defined as a hydrogeologic unit containing one large aquifer as well as several connected and interrelated aquifers that has reasonably well defined boundaries and more or less definite areas of recharge and discharge. This basin is located between the Pacific Ocean and the San Ysidro Mountains and is approximately 11 square miles, receiving water mostly from precipitation and stream-flow from the Otay valley highlands. The San Diego County Water Authority manages the Otay Valley ground water basin which is rated marginal to inferior for domestic use and irrigation because of high sodium-calcium chloride concentrations.

No ground water was encountered during site field testing conducted as part of the geological investigation in 2015. According to the report (Leighton Consulting 2015), the ground water table is expected to occur deeper than 100 feet below the lowest existing grades at the site. However, ground water may be encountered between the fill soil layer and the San Diego/Otay formations, as well as increasing/decreasing during times of precipitation and drought.

Drainage

Drainage from the project site locally runs from west to east, with some of the northerly drainage conveyed to the northwest. Water is conveyed through an existing storm drain pipe under the proposed building site, then across the existing access road (Loop Road), down the easterly slope before discharging into the existing channel that flows north/south along the easterly property line.

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. However, in the event of a dam failure, inundation poses a serious risk in the Sweetwater and Otay River valleys.

The project site is not located within a 100-year flood hazard area. As indicated on the FIRM map of the 2016 Hydrology Report for Sharp Health Medical Center (see Appendix F-1, Figure 3), the site is located in “Zone X,” which is defined as the 500-year flood.

5.8.1.2 Regulatory Framework

Federal

THE FEDERAL CLEAN WATER ACT (CWA)

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 State Water Resources Control Board (SWRCB) 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 SWRCB and its Regional Water Quality Control Board (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 of Chula Vista, is Municipal Permit Order No. R9-2013-0001. 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 implementing a comprehensive storm water management program to control pollutants of concern discharges to waters of the U.S.

All construction activities must comply with applicable regulations established by the EPA, as set forth in Section 402 of the CWA. Construction projects that involve over an acre of land require construction storm water permits from the SWRCB per Water Quality Order 2009-0009-DWQ, NPDES Permit #CAS000002. In order to be covered under the General Construction Permit, a Notice of Intent must be filed with the RWQCB. The project is located in RWQCB Region 9, with construction storm water permits overseen by the San Diego RWQCB. The San Diego RWQCB has a General Construction Permit and projects that seek coverage by the general permit are required to prepare a Storm Water Pollution Prevention Program (SWPPP). The SWPPP must identify BMPs in accordance with requirements to reduce potential water quality impacts.

The General Construction Permit also requires applicants to prepare a Post-Construction Storm Water Management Plan which identifies permanent BMPs to

prevent a completed project from discharging sediment and other storm water pollutants into nearby waters and drainage courses. Typically, post-development BMPs are intended to capture and treat initial storm flows (often referred to as first flush) which typically contain the highest amount of contaminants that have collected since the last rainfall. Systems are intended to infiltrate, filter, or treat runoff from a 24-hour, 85th percentile rainfall event with discharge of detained storm water completed in 24–48 hours.

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). The Federal Emergency Management Act (FEMA) administrates the NFIP. SFHAs are defined as areas that have a 1 percent chance of flooding within a given year. This is also referred to as the 100-year flood. Flood Insurance Rate Maps (FIRMs) were developed to identify areas of flood hazards within a community.

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 (Basin 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 (WDR) with the appropriate regional board.

Local

CITY OF CHULA VISTA DEVELOPMENT STORM WATER MANUAL

The Development Storm Water Manual (DSWM) was adopted by the City of Chula Vista in 2011 and provides guidance for projects to be in compliance with the City's Storm Water Mitigation Plan. 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 GENERAL PLAN

Both Chapter 9 (Environmental Element) and Chapter 10 (Public Facilities and Services Element) of the City of Chula Vista General Plan address reliable drainage facilities and the protection of water quality. The Public Facilities and Services Element includes objectives to increase efficiencies in handling storm water runoff through use of alternative technologies (Objective PFS 2). In addition, Objective E 2 in the Environmental Element seeks to protect and improve water quality within surface water bodies and groundwater resources within and downstream of Chula Vista.

5.8.1.3 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, 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 within the Otay Valley Hydrologic Area.

The Federal Clean Water Act and the California Porter-Cologne Water Quality Control Act require that the RWQCB adopt a Water Quality Control Plan to guide and coordinate the management of water quality in the San Diego region.

The San Diego Basin encompasses approximately 3,900 square miles, including most of San Diego County and portions of southwestern Riverside and Orange counties. The Basin Plan for San Diego designates beneficial uses of the region's surface and ground waters, identifies water quality objectives for the protection of those uses, and establishes an implementation plan to achieve those objectives.

According to the San Diego Basin Plan, the beneficial uses of surface water located in the Otay River include agricultural supply, non-contact water recreation, warm freshwater habitat, wildlife habitat, and rare, threatened, or endangered species. The beneficial uses for ground water within the Otay Valley hydrologic area is used for municipal, domestic, industrial service, and agricultural supply.

For water bodies placed on the 303(d) List of Water Quality Limited Segments, 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 of Water Quality Limited Segments, it remains on the list until a TMDL is adopted and/or water quality standards are attained.

Runoff from the project site discharges into the Otay River which is not a 303(d) listed water body. However, runoff would eventually be conveyed to the west into San Diego Bay, which is a 303(d) water body for PCBs (polychlorinated biphenyls).

5.8.2 Thresholds of Significance

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

1. Result in an increase in pollutant discharges to receiving waters (including impaired water bodies pursuant to the Clean Water Act Section 303(d) list), result in significant alteration of receiving water quality during or following construction, or violate any water quality standards or waste discharge requirements.
2. Substantially deplete ground water supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). Result in a potentially significant adverse impact on ground water quality.
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.
4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, or place structures within a 100-year flood hazard area which would impede or redirect flood flows.
5. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
6. 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.

5.8.3 Impact Analysis

Threshold 1: Alter Water Quality to a Receiving Water Body

The project would discharge into the Otay River which is not a 303(d) listed water body. However, runoff would eventually be conveyed to the west into San Diego Bay, which is a 303(d) water body for PCBs (polychlorinated biphenyls).

Construction and operation of the project would release sediments, heavy metals, organic compounds, trash and debris, and oil and grease. The project has the potential to release nutrients, oxygen-demanding substances, bacteria and viruses, and pesticides into surface water. Therefore, the project must comply with the City's Development Storm Water Manual and other applicable storm water quality standards during and after construction. As such, the project would employ source control and site design BMPs. Source control BMPs are site planning practices or structures that aim to prevent urban runoff pollution by reducing the potential for contamination at the source. Source control BMPs to be implemented by the project would include chemical-free fertilizers and pesticides (Integrated Pest Management practices), storm drain stenciling and signage, using impervious surfaces, screens, walls, and lids to protect trash areas, fire sprinkler and air conditioning condensate directed to the sewer, and roofing materials composed of non-toxic materials. Additionally, the project would implement rain shutoff devices and flow reducers for landscaping and irrigation. Construction activities would include (but not be limited to) the following temporary BMPs: silt fence, fiber rolls, desilting basin, storm drain protection, and stockpile management.

LID and site design BMPs are designed to infiltrate, filter, and/or treat runoff from the project footprint. Two modular wetlands and two cisterns located east and south of the Ocean View Tower would be implemented. A modular wetland is a proprietary biofiltration unit that screens, separates, and filters storm water. Implementation of these BMPs, along with regulatory compliance, would preclude any violations of applicable standards and discharge regulations. Project impacts would be less than significant.

Threshold 2: Deplete Ground Water Reserves or Alter Ground water Quality

The project would not use ground water sources and would instead connect to the Otay Water District's public water system that is available to the Sharp hospital campus. Construction activities would not involve pumping of ground water. Since ground water was not encountered during the geological investigation, it is not anticipated to be a constraint to construction of the subterranean levels. In addition, the foundation excavations would not extend below the ground water table. Therefore, project impacts to groundwater would be less than significant.

Threshold 3: Change the Existing Drainage Pattern Resulting in Erosion or Siltation

Runoff from the project site currently flows to the City of Chula Vista storm drain inlet located along the easterly border of the property. The proposed project would not alter the drainage contours of the existing land surface and would result in the same peak runoff volumes and flow rates for the 100-year event, equivalent to 6.84 cubic feet per second (cfs) for Basin A and 6.02 cfs for Basin B. The existing flow rates would remain the same post-construction; however, the on-site drainage pattern would change slightly to be conveyed around the new tower, resulting at the same point of compliance along the eastern border and northwest corner of the project footprint.

The proposed condition would not create additional hardscape as the existing condition is a paved parking lot and staging area. Nevertheless, improvements proposed as part of the project include new grated storm drain inlets in paved areas and a new underground storm drain system which would ensure the total peak flow runoff does not increase. Therefore, the project's impact on drainage patterns would be less than significant.

Threshold 4: Change the Surface Runoff Pattern Resulting in Flooding

The project site is not located within a 100-year flood hazard area. As described above, the project would retain the existing drainage pattern, and runoff would continue to be primarily conveyed to the eastern border. The proposed project would have no increase in runoff and would not increase flooding on- or off-site.. Thus, impacts would be less than significant.

Threshold 5: Expose People or Structures to Flooding

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 (City of Chula Vista General Plan 2005). The site is not at risk for inundation from a failure of a levee or a dam, because it is not located downstream of a dam. In addition, based on the inland location of the site and the elevation (approximately 450 above mean sea level) the potential for flooding damage by inundation from a failed dam or levee, seiche, or tsunami is very low. Therefore, impacts would be less than significant.

Threshold 6: Exceed Capacity of Storm Water Drainage Systems and/or Create Substantial Polluted Runoff

Runoff from the site would be directed to two proposed modular wetlands and two cisterns (9,750 cubic feet) located south and northeast of the proposed structure prior to discharging into the point of compliance along the eastern border. These site design BMPs would treat storm water runoff via the on-site modular wetlands and the cisterns would store and release water through a meter prior to off-site discharge in order to

comply with hydromodification and City/RWQCB storm water quality standards. Other types of operational BMPs would consist of source control measures such as stenciling and signage, Integrated Pest Management, and those discussed under Threshold 1. Standard construction BMPs would consist of silt fence, fiber rolls, desilting basin, storm drain protection, and stockpile management.

The project would not create or contribute to runoff that would exceed the capacity of existing or planned storm water drainage systems, because runoff volumes in the post-development condition would be the same as the existing condition. Thus, project impacts associated with the capacity of storm drain systems and water quality would be less than significant.

5.8.4 Level of Significance Prior to Mitigation

Project construction and operation would not significantly impact the drainage pattern, water quality, or flooding hazards because the project would not change the surface water pattern or quality once discharged from the property. In addition, the project has been designed to screen, separate, and filter storm water runoff by implementing biofiltration devices on-site. In conformance with federal, state, or local requirements, project impacts with respect to hydrology and water quality would be less than significant.

5.8.5 Mitigation Measures

Impacts would be less than significant, thus, no mitigation measures are required.

5.9 Noise

This section addresses the potential noise impacts resulting from construction and operation of the project. The discussion is based on the Noise Analysis prepared for the project by RECON. The analysis is attached as Appendix G and the relevant contents are summarized below.

5.9.1 Existing Conditions

5.9.1.1 Existing Ambient Noise

Existing noise levels at the project site were measured and traffic volumes were counted on November 23, 2015. A total of four 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.

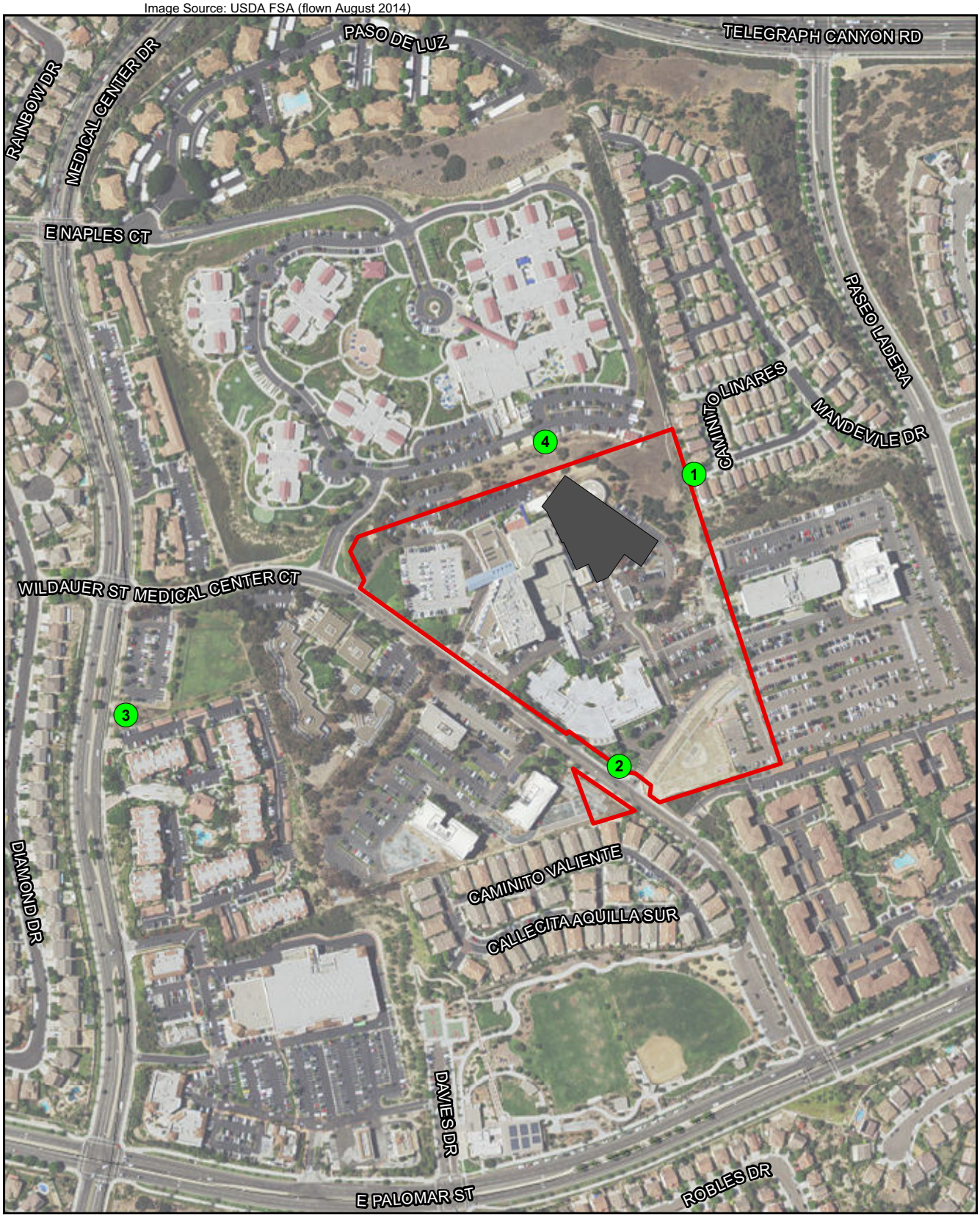
Measurement 1 was located at the western end of Caminito Cumbres, east of the project boundary near the nearest residences. The main source of noise at this location was vehicle traffic on local roadways. Noise from a local residence, such as music and televisions, was also audible. The average measured noise level during Measurement 1 was 50.5 dB(A) L_{eq}.

Measurement 2 was located at approximately 50 feet from the northern edge of Medical Center Court. The main source of noise at this location was vehicle traffic on Medical Center Court. Traffic volumes were counted on Medical Center Court, and the results are summarized in Table 5.9-3. The measured noise level during Measurement 2 was 58.2 dB(A) L_{eq}.

Measurement 3 was located at the southern project boundary at approximately 50 feet east of the edge of Medical Center Drive. The main source of noise at this location was vehicle traffic on Medical Center Drive. Traffic volumes were counted on Medical Center Drive, and the results are summarized in Table 5.9-3. The average measured noise level during Measurement 3 was 62.2 dB(A) L_{eq}.

Measurement 4 was located at the northern project boundary at approximately at the edge of the parking lot with the Veterans Home of California, Chula Vista. The main source of noise at this location was vehicle traffic on local roads and parking lot noise. The average measured noise level during Measurement 4 was 47.4 dB(A) L_{eq}.

Image Source: USDA FSA (flown August 2014)



RECON

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FIGURE 5.9-1

Noise Measurement Locations

5.9.1.2 Regulatory Framework

The City uses the community noise equivalent level (CNEL) as the measure for assessing transportation noise impacts with respect to land use planning. The CNEL is a 24-hour A-weighted average sound level [dB(A) L_{eq}] from midnight to midnight obtained after the addition of 5 decibels (dB) to sound levels occurring between 7:00 p.m. and 10:00 p.m., and 10 dB to sound levels occurring between 10:00 p.m. and 7:00 a.m. A-weighting is a frequency correction that often correlates well with the subjective response of humans to noise. Adding 5 dB and 10 dB to the evening and nighttime hours, respectively, accounts for the added sensitivity of humans to noise during these time periods.

City of Chula Vista General Plan

The Environmental Element of the City's General Plan contains applicable noise/land use compatibility guidelines, which are shown in Table 5.9-1. These guidelines reflect the levels of noise exposure that are generally considered to be compatible with various types of land use. The element notes that these guidelines are to be used at the land use planning stage, for noise impact assessments, and to determine mitigation requirements for development proposals. As shown, hospitals are not specifically listed land uses in Table 5.9-1; however, hospitals are considered similar to the schools, libraries, daycare facilities, and convalescent homes, which are considered compatible when located in areas where exterior noise levels are 65 CNEL or less (City of Chula Vista 2005).

TABLE 5.9-1
EXTERIOR LAND USE/NOISE COMPATIBILITY GUIDELINES

Land Use	Annual CNEL in Decibels					
	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						
Community Parks, Athletic Fields						
Office and Professional						
Places of Worship (excluding outdoor use areas)						
Golf Courses						
Retail and Wholesale Commercial, Restaurants, Movie Theaters						
Industrial, Manufacturing						

SOURCE: Table 9-2 of the City of Chula Vista General Plan (2005).

The following policies from the General Plan are relevant to this noise analysis:

OBJECTIVE E 21

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

POLICIES

E 21.1: Apply the exterior land use-noise compatibility guidelines contained in Table 9-1 (see Table 5.9-1 of this EIR) of the Environmental Element to new development where applicable and in light of project-specific considerations.

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

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

E 21.4: Continue to implement and enforce the City's noise control ordinance.

OBJECTIVE E 22

Protect the community from the effects of transportation noise.

POLICIES

E 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 9-1 of the Environmental Element (see Table 5.9-1 of this EIR).

City of Chula Vista Noise Control Ordinance

ON-SITE GENERATED NOISE

The Noise Control Ordinance (Chula Vista Municipal Code [CVMC] Chapter 19.68) 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. CVMC Section 19.68.030 defines exterior noise standards for various receiving land 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. The project site is surrounded by institutional and office land uses on the east, south, and west, with single-family residential uses and an institutional/residential use (Veterans Home of California – Chula Vista) located to the north.

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 – L_{eq} 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 dB.
[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.

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.

VIBRATION

The Noise Ordinance (CVMC Section 19.68.050) regulates vibration from operational sources. It prohibits operating or permitting the operation of any device that creates a vibration that is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property or at 150 feet from the source if on a public space or public right-of-way. Construction vibration levels were evaluated using Federal Transit Administration (FTA) standards.

California Code of Regulations

Title 24, Part 2, Chapter 12, Section 1207 represents the regulatory requirements for interior noise for all new construction in California. Section 1207.1 identifies the

applicability of the section. Section 1207.4, which was added as an amendment in July 2015, states that "interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either the day-night average sound level (L_{dn}) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan."

TABLE 5.9-3
15-MINUTE TRAFFIC COUNTS

Measurement	Roadway	Autos	Medium Trucks	Heavy Trucks	Buses	Motor-cycles
2	Medical Center Drive	87	2	0	3	0
3	Medical Center Court	212	1	0	4	0

SOURCE: Appendix G.
NOTE: Traffic volumes were not counted during measurements 1 and 4.

5.9.2 Thresholds of Significance

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

1. Result in the exposure of persons to or generation of noise levels in excess of standards established in the Chula Vista General Plan or noise ordinance, or applicable standards of other agencies.

2. Result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

3. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

4. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

5.9.3 Impacts

Threshold 1: General Plan and Noise Ordinance Standards

Threshold 1 states that significant noise impacts would occur if the project results in the exposure of persons to or generation of noise levels in excess of standards established in the Chula Vista General Plan or noise ordinance, or applicable standards of other agencies.

Vehicle Traffic Noise

The main source of traffic noise at the project site is vehicle traffic on Medical Center Court, Telegraph Canyon Road, East Palomar Street, and Medical Center Drive. On-site noise level contours were calculated based on the peak traffic hour volumes. Peak hour traffic volumes were calculated as 10 percent of the total average daily traffic (ADT) volume. Typically, the predicted CNEL and the maximum daytime hourly L_{eq} calculated are equal.

Cumulative (2035) traffic volumes on roadways in the vicinity of the project site were obtained from the project traffic report (LLG 2015). Table 5.9-4 summarizes the future traffic volumes and posted speeds for modeled roadways near the project site. The vehicle classification mix was developed from field observations, which were used to determine the vehicle classification mix, or the percentage of automobiles, medium trucks, and heavy trucks from the total volume.

TABLE 5.9-4
FUTURE VEHICLE TRAFFIC PARAMETERS

Roadway	Future ADT	Peak Hour Volume	Speed (mph)	Vehicle Classification Mix				
				Autos	Medium Trucks	Heavy Trucks	Buses	Motor-cycles
Medical Center Drive	24,400	2,440	35	2,318	54	32	24	12
Telegraph Canyon Road	52,500	5,250	50	4,987	116	68	53	26
East Palomar Street between Medical Center Drive and Medical Center Court	14,100	1,410	35	1,340	31	18	14	7
East Palomar Street between Medical Center Court and Heritage Road	17,900	1,790	35	1,702	39	23	18	9
Medical Center Court	14,400	1,440	25	1,370	32	18	14	7

SOURCE: LLG 2015.
ADT = average daily traffic
mph = miles per hour

Traffic noise contours were developed using the SoundPLAN program. Noise level contours, modeled 5 feet above the ground, are shown in Figure 5.9-2. These do not take into account topography or existing buildings. As shown in Figure 5.9-2, first-floor noise levels at the hospital campus are projected to range from 50 to 65 CNEL, while first-floor unshielded noise levels at the site of the proposed tower are projected to be less than 55 CNEL.

Noise levels were also modeled at 12 specific receiver locations at the exterior façade of each floor to evaluate the compatibility of the proposed project with future traffic noise levels. The modeled receiver locations and noise level contours are shown in Figure 5.9-2. Modeled noise levels at the building façade were compared with the City's exterior noise compatibility standard of 65 CNEL. Modeled noise levels took into account the proposed buildings, however, to be conservative the model assumed flat terrain with no intervening structures.

Image Source: USDA FSA (flown August 2014)

Project Parcel
New Tower
Receivers

Future Traffic Noise Contour
50 CNEL
55 CNEL
60 CNEL
65 CNEL

0 Feet 200

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FIGURE 5.9-2

Traffic Noise Contours and Receivers

Table 5.9-5 summarizes the projected future noise levels at the 12 modeled receivers. As seen from this table, first-, third-, fifth-, and seventh-floor noise levels are not projected to exceed 65 CNEL. These projected exterior noise levels would be considered "compatible" for hospital land uses.

TABLE 5.9-5
FUTURE VEHICLE TRAFFIC EXTERIOR NOISE LEVELS
(CNEL)

Receiver	First Floor	Third Floor	Fifth Floor	Seventh Floor
1	48	53	55	56
2	48	54	56	57
3	48	53	55	56
4	45	52	54	55
5	45	51	53	54
6	44	51	53	54
7	44	51	53	54
8	43	45	47	48
9	44	46	47	48
10	46	51	54	55
11	47	52	54	55
12	46	51	54	55

SOURCE: Appendix G.

As discussed in Section 5.9.1.1, interior noise levels are regulated by Title 24 of the California Code of Regulations. Interior noise levels attributable to exterior sources shall not exceed 45 CNEL. Standard masonry construction would provide a noise reduction of at least 25 dB (FHWA 2011). As shown in Table 5.9-5, the loudest projected exterior noise level due to vehicle traffic is 57 CNEL. A 25 dB reduction would result in interior noise levels of 32 CNEL. Thus, interior noise levels are not projected to exceed 45 CNEL.

On-Site Generated Noise

The noise sources on the project site after construction would be those typical of the existing hospital campus, such as vehicles arriving and leaving, including emergency vehicles; mechanical equipment; and maintenance activities. Parking lot noise, emergency vehicles, and general maintenance activities are not anticipated to violate the CVMC or result in a substantial permanent increase in existing noise levels.

The proposed project does not include the construction of a new central plant; however, a new cooling tower would be installed within the existing cooling tower structure at the north end of the parking structure. A new 1,500-kilowatt emergency generator would be required for the new tower. The new emergency generator would be located immediately east of the existing emergency generator building. Due to current stage of design, the specific model of generator has not been selected; therefore, this analysis uses a Cummins QSK 50 series generator, model DQGAF (see Appendix G). The new tower

would also include a boiler room on the top floor of the new tower. The project would install three boilers. The boiler room would be located inside the building, and the primary noise source for the boilers would be the exhaust stack located on the roof of the seven-story tower. Other mechanical noise sources associated with the new structure would be 11 roof-mounted air handler units, 9 of which would be located on the second floor of the tower between the new seven-story tower and the existing hospital building. It is not known at this time which manufacturer, brand, or model of ventilation unit or units would be selected for use in the project. Noise level data for modeled equipment was based on review of project plans and a review of manufacturer specifications for similarly sized equipment. The list in Table 5.9-6 was developed as representative of the potential equipment that would be associated with the project.

TABLE 5.9-6
MODELED STATIONARY EQUIPMENT

Equipment	Number of Units	Modeled Noise Level [dB(A) L_{pw}]
Cooling Tower	1	116.3[2]
Generator (Unshielded)	1	122.6
Generator (Enclosed)	1	107.6
Boiler Room Exhaust	1	94.3
Air Handlers (24,000 CFM)	9	95.5
Air Handlers (82,000 CFM)	2	97.9

SOURCE: Appendix G.
CFM = cubic feet per minute.
Lpw = sound power level.

On-site noise sources were modeled with SoundPLAN using the parameters detailed in Appendix G. Equipment noise levels were modeled at the property line of the nearest residential uses. Figure 5.9-3 shows the modeled locations of the equipment and the property line receivers. The results are summarized in Table 5.9-7.

TABLE 5.9-7
STATIONARY SOURCE NOISE LEVELS
[dB(A) L_{eq}]

Receiver	First Floor	Second Floor
13	42	43
14	44	44
15	40	41
16	37	38
17	32	32
18	46	46
19	36	38
20	48	49

SOURCE: Appendix G.

Image Source: USDA FSA (flown August 2014)

0 Feet 200

Project Parcel
New Tower
Receivers

Rooftop Noise Contours

45 dB(A) Leq
50 dB(A) Leq
55 dB(A) Leq
60 dB(A) Leq
65 dB(A) Leq
70 dB(A) Leq
75 dB(A) Leq

FIGURE 5.9-3

On-Site Noise Contours and Receivers

RECON

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As shown, equipment noise levels at the property line would not exceed the CVMC standard of 45 dB(A) Leq at the single-family residential property lines to the south nor the CVMC standard of 50 dB(A) Leq at the Veterans Home of California to the north and multi-family residential uses to the south. Threshold 2: Groundborne Vibration and Groundborne Noise

Threshold 2 states that significant noise impacts would occur if the project results in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Vibration consists of energy waves transmitted through solid material (Caltrans 2013a). Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in hertz (Hz). The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz (FTA 2006).

Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Groundborne vibration is measured by its peak particle velocity (PPV). The PPV is normally described in inches per second (in/sec).

Groundborne vibration is not a common environmental problem. It is unusual for vibration from transportation sources, such as buses and trucks, to be perceptible, even in locations close to major roads (Caltrans 2013a). However, sources, such as trains, and construction activities can represent significant vibrations sources. This is of particular concern in projects involving blasting or pile-driving.

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 excavation would have the greatest potential to generate vibrations that would affect nearby residential land uses. Construction equipment would include loaded trucks, an excavator, as well as a dozer or loader. Vibration levels from these pieces of equipment would generate vibration levels with a PPV ranging from 0.035 to 0.089 in/sec PPV at the nearest residence. 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 in/sec PPV, with 0.24 in/sec PPV being distinctly perceptible (Caltrans 2013b). Neither cosmetic nor structural damage of buildings occurs at levels below 0.1 in/sec PPV. As construction vibration levels would be below the distinctly perceptible threshold, groundborne vibration and noise impacts from construction would be less than significant.

Threshold 3: Permanent Increase in Ambient Noise

Threshold 3 states that significant noise impacts would occur if the project results in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

The project would increase traffic volumes on local roadways. Noise level increases would be greatest nearest the project site, as this location would represent the greatest concentration of project-related traffic. 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; thus, the primary factor affecting off-site noise levels would be increased traffic volumes. The increase in noise due to the addition of project traffic was calculated by determining the increase over the existing condition with the project traffic volumes as well as the future growth predicted in the traffic report. The potential increase in noise levels is shown in Table 5.9-8.

As shown in Table 5.9-8, existing traffic noise level increase along all roadway segments would be 1 CNEL or less when looking at the increase associated with the project only. Under the near-term condition, noise level increases would also be 1 CNEL or less. Under cumulative condition, there are predicted to be increases of 6 CNEL along East Palomar Road between Oleander Avenue and Medical Center Drive and 2 CNEL increases along East Palomar Street between Medical Center Drive and Medical Center Court and along Medical Center Court between Medical Center Drive and the hospital, however, as shown in Table 5.9-8, the project would contribute 1 CNEL or less to cumulative increases. Thus, while a cumulative traffic noise increase would occur, the project's contribution is less than cumulatively considerable.

TABLE 5.9-8
PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Roadway	Segment	Noise Level Increase (CNEL)			
		Between Existing and Existing Plus Project	Between Existing and Near-term Plus Project	Between Existing and Cumulative Plus Project	Project Contribution to Cumulative Noise Increase
Telegraph Canyon Road	Halecrest Drive to Oleander Avenue	0	0	1	0
	Oleander Avenue to Medical Center Drive	0	0	1	0
	Medical Center Drive to Heritage Road	0	0	1	0
East Palomar Street	Oleander Avenue to Medical Center Drive	0	1	6	0
	Medical Center Drive to Medical Center Court	0	0	2	0
	Medical Center Court to Heritage Road	0	1	1	0
Olympic Parkway	I-805 to Oleander Avenue	0	0	-1	0
	Oleander Avenue to Brandywine Avenue	0	0	0	0
	Brandywine Avenue to Heritage Road	0	0	0	0
Medical Center Drive	Telegraph Canyon Road to Medical Center Court	0	1	1	0
	Medical Center Court to East Palomar Street	0	1	1	0
Medical Center Court	Medical Center Drive to Hospital	1	1	2	1
	Hospital to East Palomar Street	0	1	1	0

SOURCE: Appendix G.

Threshold 4: Temporary Increase in Ambient Noise

Threshold 4 states that significant noise impacts would occur if the project results in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Noise associated with the demolition, grading, building, and paving activities for the project would potentially result in short-term impacts to surrounding properties. A variety of noise-generating equipment would be used during the construction phase of the project such as scrapers, backhoes, front-end loaders, and concrete saws, along with others. The exact number and pieces of construction equipment required are not known at this time. In the absence of specifics, it was assumed that the loudest noise levels would occur during grading activities. Although maximum noise levels may be 85 to 90 dB(A) L_{eq} at a distance of 50 feet during most construction activities, hourly average noise levels would be 85 dB(A) L_{eq} at 50 feet from the center of construction activity when assessing the loudest pieces of equipment working simultaneously.

Construction noise is considered a point source and would attenuate at approximately 6 dB(A) for every doubling of distance. There are residential uses 250 feet north of the project site and approximately 300 feet from the center of the proposed construction

activity. Grading would occur over the entire site and would not be situated at any single location for a long period of time. Assuming the acoustic center of the construction activity would be the center of the entire project site, hourly average construction noise levels at the northern residential property lines would be 69 dB(A) L_{eq} or less. Construction activities would generally occur over an 8-hour period between 7:00 a.m. and 10:00 p.m. on weekdays. While construction may be heard over other noise sources in the area, noise levels of this order would not be a substantial increase in ambient noise levels during construction.

Although the existing adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be short-term. 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 Chula Vista Construction Noise Ordinance. Because construction activities associated with the proposed project would comply with the applicable regulation for construction, temporary increases in noise levels from construction activities would be less than significant.

5.9.4 Level of Significance Prior to Mitigation

Threshold 1: General Plan and Noise Ordinance Standards

Vehicle Traffic Noise

Exterior noise levels are not predicted to exceed 65 CNEL at the façade of the new tower. Therefore, the proposed project would not be exposed to noise levels in excess of City compatibility standards. Impacts would be less than significant.

On-Site Generated Noise

Equipment noise levels were modeled at the property line of the nearest residential uses. Equipment noise levels at the property line would not exceed the most restrictive CVMC standard of 45 dB(A) L_{eq} at the nearest residential property line. Impacts would be less than significant.

Threshold 2: Groundborne Vibration and Groundborne Noise

As construction vibration levels would be below the distinctly perceptible threshold, groundborne vibration from construction would be less than significant.

Threshold 3: Permanent Increase in Ambient Noise

Existing and near-term traffic noise level increases along all roadway segments would be 1 CNEL or less and would not be perceptible. Under cumulative condition, there are predicted to be increases of 6 CNEL along East Palomar Road between Oleander

Avenue and Medical Center Drive and 2 CNEL increases along East Palomar Street between Medical Center Drive and Medical Center Court and along Medical Center Court between Medical Center Drive and the hospital, however, the project would contribute 1 CNEL or less to cumulative increases. Thus, while a cumulative traffic noise increase would occur, the project's contribution is less than cumulatively considerable.

Threshold 4: Temporary Increase in Ambient Noise

Hourly average construction noise levels at the northern residential property lines would be 69 dB(A) L_{eq} or less. Although the existing adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be short-term. 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 Chula Vista Construction Noise Ordinance. Because construction activities associated with the proposed project would comply with the applicable regulation for construction, temporary increases in noise levels from construction activities would be less than significant.

5.9.5 Mitigation Measures

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

5.10 Paleontological Resources

This section addresses the potential for ground-disturbing activities associated with the project to impact paleontological resources. The following analysis relies upon information about the subsoil conditions and underlying geologic formations obtained from the geotechnical reports (see Appendices E-1 through E-4), as well as the paper "Paleontological Resources" prepared by Thomas A. Deméré and Stephen Walsh for the Department of Paleontology – San Diego Natural History Museum (updated November 2011).

5.10.1 Existing Conditions

5.10.1.1 Existing Paleontological Resources

Paleontological resources represent a limited, nonrenewable, and impact-sensitive scientific and educational resource. Paleontological resources are the remains and/or traces of prehistoric plant and animal life exclusive of man. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities.

Paleontological resource sensitivities are rated for individual formations and recognize the important relationship between fossils and the geologic formations within which they are found. Geologic formations are rated for paleontological resource potential according to the following scale (Deméré and Walsh 2011).

- High Sensitivity — These formations contain a large number of known fossil localities. Generally, highly sensitive formations produce vertebrate fossil remains or are considered to have the potential to produce such remains.

- Moderate Sensitivity — These formations have a moderate number of known fossil localities. Generally, moderately sensitive formations produce invertebrate fossil remains in high abundance or vertebrate fossil remains in low abundance.

- Low and/or Unknown Sensitivity — These formations contain only a small number of known fossil localities and typically produce invertebrate fossil remains in low abundance. Unknown sensitivity is assigned to formations from which there are presently no known paleontological resources, but which have the potential for producing such remains based on their sedimentary origin.

- Very Low Sensitivity — Very low sensitivity is assigned to geologic formations that, based on their relative youthful age and/or high-energy depositional history, are judged to be unlikely to produce any fossil remains.

According to the Geotechnical Investigation (see Appendix E-1), the project site is underlain by undocumented fill, undifferentiated late Pleistocene age-very old paralic deposits, and the San Diego Formation. The makeup and paleontological resource potential of these underlying formations is as follows (Deméré and Walsh 2011):

- San Diego Formation (Tsdss) — The San Diego Formation is a marine sedimentary deposit of late Pliocene age. The San Diego Formation is well known for its rich fossil beds that have yielded diverse assemblages of marine clams, scallops, snails, crabs, barnacles, sand dollars, sharks, rays, bone fishes, sea birds, and baleen whales. Because of the extremely important remains of fossil marine mammals, sea birds, and mollusks recovered from this rock unit, this formation has been assigned "high paleontological resource sensitivity" (Deméré and Walsh 2011).

- Lindavista Formation – Also referred to as "Very Old Paralic Deposits (Qvop)" in the geotechnical report (see Appendix E-1), this formation is middle to early Pleistocene in age This unit is assigned a moderate paleontological resources sensitivity.

- Undocumented fill (Afu) — Undocumented fill is an artificial formation that has been heavily impacted by human activity. Undocumented fills are usually comprised of materials brought in from other locations on- or off-site to fill in below grade areas and may consist of materials such as loose soils, concrete debris, and sometimes trash. Undocumented fill is assigned a low paleontological resource sensitivity.

5.10.1.2 Regulatory Framework

California Environmental Quality Act

Pursuant to Section 15065 of the California Environmental Quality Act (CEQA) Guidelines, a lead agency must find that a project may have a significant effect on the environment if the project has a potential to destroy significant paleontological resources.

California Public Resources Code

Section 5097.5 of the Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor.

City of Chula Vista General Plan

Chapter 9 (Environmental Element) of the Chula Vista General Plan includes protections for paleontological resources. Chapter 9, Section 3.1.10 includes objectives to protect

important paleontological resources and support and encourage public education and awareness of such resources (Objectives E 10.1 and 10.2).

5.10.2 Thresholds of Significance

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

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

2. Be inconsistent with General Plan paleontological policies thereby resulting in a significant physical impact.

5.10.3 Impacts

Threshold 1: Impacts to Paleontological Resources

The project site contains geologic formations considered to be of high and moderate sensitivity for fossils. As discussed in Section 5.10.1 above, the area proposed for the Ocean View Terrace (OVT) is underlain by the San Diego and Lindavista formations, which are formations of high and moderate paleontological sensitivity, respectively. Undocumented fill is of low sensitivity.

Based on the potential to encounter fossils within formations of high and moderate paleontologic sensitivity, impacts due to grading and excavation, for project would potentially impact significant paleontological resources (PALEO-1).

Threshold 2: Consistency with General Plan Paleontological Resources Policies

Policy 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.

Policy 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

As discussed for Threshold 1, the San Diego and Lindavista formations present underlying the footprint of the OVT, have high and moderate (respectively) potential for paleontological resources, and therefore this would be a potentially significant impact due to construction. With implementation of the PALEO-1 mitigation measure, the proposed project would comply with all necessary procedures to protect and minimize damage to paleontological resources and would be consistent with all General Plan

goals, objectives, and policies related to paleontological resources. Impacts would therefore be reduced to a level less than significant.

5.10.4 Level of Significance prior to Mitigation

Threshold 1: Direct Impacts to Paleontological Resources

Site preparation, grading, and excavation for the construction of the OVT would likely disturb the San Diego Formation (high sensitivity) and Lindavista Formation (moderate sensitivity); therefore, impacts would be potentially significant.

Threshold 2: Consistency with General Plan Paleontological Resources Policies

Given the potential for significant impacts to paleontological resources, implementation of mitigation measure PALEO-1, is required to bring the project into conformance with the General Plan policies.

5.10.5 Mitigation Measures

Paleontological monitoring shall be undertaken during ground disturbing activities for the project in order to ensure that impacts are reduced to below a level of significance.

PALEO-1 Prior to the issuance of grading permits for the proposed project, the Applicant shall confirm to the Development Services Director, or their designee, that a qualified paleontologist (QP) has been retained to carry out an appropriate mitigation program. A QP is defined as an individual with a doctorate or a master's degree in paleontology or geology, who is familiar with paleontological procedures and techniques. A pre-grade meeting shall be held between the paleontologist and the grading and excavation contractors.

A paleontological monitor shall be on-site at all times during the original cutting of previously undisturbed sediments of highly sensitive geologic formations (i.e., San Diego Formation) to inspect cuts for contained fossils. (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials.) The paleontological monitor shall work under the direction of a qualified paleontologist. The monitor shall be on-site on at least a half-time basis during the original cutting of previously undisturbed sediments of moderately sensitive geologic formations (i.e., Lindavista Formation) to inspect cuts for contained fossils.

When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time. However, some fossil specimens

(such as a complete whale skeleton) may require an extended salvage time. In these instances, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains such as isolated mammal teeth, it may be necessary in certain instances and at the discretion of the paleontological monitor to set up a screen-washing operation on the site.

Prepared fossils along with copies of all pertinent field notes, photographs, and maps shall be deposited in a scientific institution with paleontological collections such as the San Diego Natural History Museum. A final summary report shall be completed. This report shall include discussions of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.

5.10.6 Level of Significance after Mitigation

Implementation of mitigation measure PALEO-1 would reduce the project's potential for impacts to below a level of significance.

5.11 Public Utilities

Public utilities evaluated in this section include water, sewer, and solid waste facilities. This section is based on the results of a Public Water System analysis for the Sharp Medical Center Expansion prepared by Dexter Wilson Engineering, Inc. included as Appendix H-1 and a Sewer Capacity Study for Sharp Chula Vista Medical Center Expansion prepared by Rick Engineering included as Appendix I-1 (with an addendum letter in Appendix I-2).

5.11.1 Existing Conditions

5.11.1.1 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.

The project area will obtain water service from the 711 Pressure Zone of the OWD's public water system. This pressure zone provides a minimum static water pressure on the Sharp Chula Vista Medical Center of 114 pounds per square inch (psi) based on a site elevation of 446 feet above mean sea level (AMSL). An existing 16-inch water main is located to the west in Medical Center Drive which extends between a 20-inch water main in Telegraph Canyon Road and parallels 10-inch and 12-inch mains in Medical Center Court. The parallel mains in Medical Center Court extend south and east almost to the Sharp Cancer Center private driveway. There is a 16-inch water main in Medical Center Court that extends from the Sharp Cancer Center private driveway to a 16-inch water main in East Palomar Street. To the east in Paseo Ladera there is a 16-inch 711 Pressure Zone water main which connects between East Palomar Street and the 20-inch water main in Telegraph Canyon Road.

On-site, within the Sharp Cancer Center private driveway, there is an existing 8-inch public water main which extends into the Sharp Cancer Center, makes a loop around the building, and then extends east as a 12-inch main connecting to the existing 16-inch water main in Paseo Ladera.

The as-built base files of the Sharp Medical Center Expansion show an existing private water system adjacent to the Medical Center. A private domestic water line extends from

a 4-inch meter in Medical Center Court around the south side of the existing building. A private fire protection water system loop is shown surrounding the Medical Center building which includes several private fire hydrants. The as-builts show that the on-site private fire protection system is connected to the public water system in Medical Center Court through a 4-inch meter and backflow.

There is an existing private fire service loop around the hospital, which provides fire sprinkler service the existing East Tower building and has private fire hydrants connected to it.

5.11.1.2 Wastewater

Sanitary sewer service for the project would be provided by the 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. Currently, sewage that is produced within the existing facilities in the Sharp Chula Vista Medical Center flows into an existing 10-inch sewer pipe located within Medical Center Court. This collected wastewater flows in a westerly direction into an existing 10-inch sewer pipe located within Medical Center Drive and from there flows in a northerly direction to an existing 15-inch sewer pipe within Telegraph Canyon Road. Wastewater in the Telegraph Canyon Road sewer pipe flows westerly to and 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.

5.11.1.3 Solid Waste

The City of Chula Vista Public Works Department and Environmental Services Division oversees waste management for residences and businesses in accordance with the above mentioned goals of the adopted General Plan and 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.

5.11.1.4 Regulatory Plans and Policies

Title 24, Part 11 – California Green Building Standards

The 2013 California Green Building Standards Code, referred to as CALGreen, took effect January 1, 2014 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.

The current mandatory standards include requirements to reduce indoor potable water use to the 20 percent mandatory reduction quantities required in the original 2010 CALGreen standards relative to specified baseline levels. A water use compliance form must demonstrate the minimum 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.

Chula Vista Green Building Standards

The Green Building Standards (GBS) ordinance (Ordinance No. 3287) was adopted by the City Council and became effective January 1, 2014. This represents adoption of the then pending 2013 California Green Building Standards. Permit applications for all new/remodel residential and non-residential projects submitted on or after January 1, 2015 are required to comply with the GBS ordinance. 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.

San Diego County Water Authority 2010 Urban Water Management Plan

On June 23, 2011, the SDCWA Board of Directors adopted its final 2010 Urban Water Management Plan (UWMP). The 2010 UWMP identifies a diverse mix of water resources projected to be developed over the next 25 years to ensure long-term water supply reliability for the region. The 2010 UWMP includes projected water use based on the San Diego Association of Governments' (SANDAG) 2050 Regional Growth forecasts, which include the City's 2005 General Plan Amendment. The plan quantifies the regional mix of existing and projected local and imported supplies necessary to meet future retail demands within the SDCWA service area in normal, single dry and multiple dry years. Preparation of an update to the 2010 UWMP is currently in process.

Otay Water District 2010 Urban Water Management Plan

The OWD 2010 UWMP assesses the OWD's water supply sources, water demands, water supply reliability, supply and demand comparison provisions, demand management, water shortage contingency plan, and water recycling through 2035. The OWD 2010 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, which is frequently the lowest cost resource available to OWD.

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 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.

City of Chula Vista Growth Management Program

The goal of the City's Growth Management Program is to prevent growth unless adequate public facilities and improvements are provided in a phased and logical fashion (City Municipal Code Section 19.09.010(A)(6)). The Growth Management Ordinance implements the policy framework established by the City's General Plan for Chula Vista's Growth Management Program and codifies threshold standards designed to assure that, as new development occurs, public facilities, infrastructure and services will exist, or concurrently be provided, to meet the demands generated by new development, and service levels to existing residents will not be reduced. Goals, objectives, and threshold standards for water and sewer identified in the Growth Management Ordinance are as follows:

WATER

1. Goal. To ensure that adequate supplies of potable and recycled water are available to the City of Chula Vista.

2. Objectives

    a. Ensure that adequate storage, treatment and transmission facilities are constructed concurrently with planned growth.

    b. Ensure that water quality standards requirements are met during growth and construction.

    c. Encourage diversification of water supply, conservation and use of recycled water where appropriate and feasible.

3. Threshold Standards

    a. 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.

    b. The City shall annually provide the San Diego County Water Authority, the Sweetwater Authority and the Otay Municipal Water District with the City's annual five-year residential growth forecast and request that they provide an evaluation of their ability to accommodate forecasted growth. Replies should address the following:

i. Water availability to the City, considering both short- and long-term perspectives.

ii. Identify current and projected demand, and the amount of current capacity, including storage capacity, now used or committed.

iii. Ability of current and projected facilities to absorb forecasted growth.

iv. Evaluation of funding and site availability for projected new facilities.

v. Other relevant information the district(s) desire to communicate to the City and the Growth Management Oversight Commission (GMOC).

4. Implementation Measure. Should the GMOC determine that a current or potential problem exists with respect to water, it may issue a statement of concern in its annual report. (Ordinance 3339 Section 3, 2015).

SEWER

1. Goal. To provide a healthful and sanitary sewer collection and disposal system for the residents of the City of Chula Vista, consistent with the City's wastewater master plan.

2. Objective. Individual projects will provide necessary improvements consistent with City engineering standards. Treatment capacity should be acquired in advance of demand.

3. Threshold Standards

   a. 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.

   b. The City shall annually ensure adequate contracted capacity in the San Diego Metropolitan Sewer Authority or other means sufficient to meet the projected needs of development.

4. Implementation Measures

   a. The City Engineering Department shall annually gather and provide the following information to the GMOC:

      i. Amount of current capacity in the Metropolitan Sewer System now used or committed and the status of Chula Vista's contracted share;

      ii. Ability of sewer facilities and Chula Vista's share of the Metropolitan Sewer System's capacity to absorb forecasted **growth** over the next five years;

iii. Evaluation of funding and site availability for budgeted and projected new facilities; and

iv. Other relevant information.

b. Should the GMOC determine that a potential problem exists with meeting the projected needs of development with respect to sewer, it may issue a statement of concern in its annual report.

City of Chula Vista General Plan

The City's General Plan, Growth Management Element includes as Objective GM 1: and associated policies to ensure public facilities and services are available to residents and visitors of the City concurrent with development. Additionally, the following General Plan objectives from the Public Facilities and Services Element and Environmental Element are relevant to public utilities:

OBJECTIVE PFS 1

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

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 25

Efficiently handle solid waste disposal throughout the city.

OBJECTIVE E 8

Minimize the amount of solid waste generated within the General Plan area that requires landfill disposal.

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 City's Municipal Code, 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.

California Mandatory Commercial Recycling Regulation

Enacted by Assembly Bill 341 (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 multifamily 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.

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 the California Green Building Standards Code.

5.11.2 Thresholds of Significance

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

1. Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

2. Have insufficient water supplies available to serve the project from existing entitlements and resources.

3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate planned capacity to serve projected demand in addition to the provider's existing commitments.

4. Be served by landfills with insufficient permitted capacity to accommodate the project's solid waste disposal needs and comply with federal, state, and local statutes and regulations related to solid waste.

5.11.3 Impacts

Threshold 1: Need for Construction or Expansion of Water Facilities

Threshold 1 states that the project would result in a significant impact if it would result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The project proposes to construct a 12-inch public line extending from the end of the existing 8-inch water main in the Sharp Center Cancer Private Driveway north and west around the Sharp Medical center buildings to the existing 12-inch 711 Pressure Zone water main in Medical Center Court. Extending off this new 12-inch water main will be new domestic water, fire hydrant services, new fire sprinkler laterals, and irrigation services. New fire sprinkler system laterals will supply the project building fire sprinkler systems. The project also proposes to add a new 4-inch domestic water meter to augment the existing 4-inch domestic meter serving the Sharp Chula Vista Medical Center.

Construction of these facilities would occur within the existing developed footprint of the Sharp Chula Vista Medical Center and would not result in any significant impacts. Thus, environmental impacts related to the construction of new facilities would be less than significant.

Threshold 2: Insufficient Water Supplies

Threshold 2 states that the project would result in a significant impact if it would have insufficient water supplies available to serve the project from existing entitlements and resources.

Additionally, the City's threshold standard for water requires that adequate water supply must be available to serve new development and requires developers to provide the City with a service availability letter from the appropriate water district.

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 2010 OWD UWMP, adopted on June 1, 2011, 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 2010 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 OWD has evaluated the projected 350 gallons per minute (gpm) requirements for the project. In a letter dated November 23, 2015, the OWD determined that existing district infrastructure is sufficient to serve the project and specifies that water availability will be subject to all District requirements in effect at the time of project implementation and ongoing operation (see Appendix H-2). Further, the OWD confirmed in an e-mail dated May 18, 2016 that a Water Supply Assessment is not required.

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 District's UWMP. As the project is consistent with land uses evaluated during preparation of the OWD 2010 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 and impacts would be less than significant.

Threshold 3: Inadequate Wastewater Treatment Capacity to Serve Demand

Threshold 3 states that the impacts would be significant if the project would result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate planned capacity to serve projected demand in addition to the provider's existing commitments.

Additionally, the City's threshold standard for sewer 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.

The wastewater outflow for the existing Sharp Chula Vista Medical Center facilities is calculated to be approximately 20,000 gallons per day (gpd). This is based on an estimated sewage flow rate of 2,500 gpd per acre as defined in the City of Chula Vista Subdivision Manual – Sewer Design Criteria. The approved City of Chula Vista Wastewater Master Plan identified the entire medical center as producing 82,375 gpd at final build-out. A Sewer Capacity Study (January 6, 2014) was prepared for the Medical Center expansion (see Appendix I-1) which demonstrates how the project would meet City engineering standards and would be within projected facility sewage flows. Appendix I-1 was prepared in conjunction with the Sharp Master Plan for the Chula Vista campus and in the interim the decision was made to build one new tower instead of two. Therefore, an addendum letter (see Appendix I-2) was prepared in order to update the sewer projections for the site.

Appendix I-2 provides updated sewer outfall projections based on the recent improvements to approximately half of the campus' irrigation systems. Further, Appendix I-2 updates the data about existing hospital use to 19,400 gpd based on the fact that the kitchen demand, cooling tower demand, and other support service water demand would move to the new tower. The project would, therefore, have an estimated flow of 28,400 gpd bringing the total estimated flow to 47,800 gpd (19,400 gpd [existing] + 28,400 gpd [proposed]). This would be approximately 58 percent of the ultimate buildout capacity (82,375 gpd) of the sewer system as set forth in the City of Chula Vista Wastewater Master Plan. Thus, there is sufficient capacity for existing wastewater in addition to the wastewater outflow that would be generated by the Ocean View Tower and the total outflow planned for final build-out of the medical center site. Impacts related to sewer capacity would be less than significant.

Threshold 4: Landfill Capacity

Threshold 4 states that impacts to integrated waste management would be significant if the project would be served by landfills with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

As calculated using the Integrated Waste Management estimates of yearly hospital solid waste generation per bed per year, the project would generate an additional 461 tons of solid waste per year of operation.

The Public Facilities and Services Element of the City's General Plan 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 2005). 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 2015). 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 Chula Vista Municipal Code (CVMC) Section 8.25 would minimize the project's solid waste generation. The General Plan Public Facilities Element contains several policies intended to efficiently handle solid waste disposal throughout the City, encourage the reduction of waste generation, and promote waste diversion from landfills. 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.

5.11.4 Level of Significance Prior to Mitigation

Threshold 1: Need for Construction or Expansion of Water Facilities

The water and wastewater facility improvements would occur within the developed footprint of the medical center site. Off-site improvements to treatment and distribution facilities would not be required. Therefore, physical impacts associated with the construction of new water facilities would be less than significant.

Threshold 2: Insufficient Water Supplies

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 and the service letter provided by the OWD (see Appendix H-2). As the project would not require new or expanded water supplied, impacts would be less than significant.

Threshold 3: Inadequate Wastewater Treatment Capacity to Serve Demand

The combination of existing (20,000 gpd) and proposed wastewater output (28,400 gpd) would be within the approved City of Chula Vista Wastewater Master Plan wastewater volume for final build-out of 82,375 gpd. The Sewer Capacity Study 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.

Threshold 4: Landfill 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.

5.11.5 Mitigation Measures

All impacts related to public utilities would be less than significant; thus, 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 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 Section 15130 of the CEQA Guidelines, 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."

The following evaluation of cumulative impacts considers reasonably foreseeable projects in the vicinity of the project site. 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."

The project is located within an area where the immediate vicinity is substantially built out, but in a community which is experiencing a significant amount of growth. The project has been designed to accommodate a growth rate of over 7 percent annually in the need for emergency services; however, the project does not cause or contribute to the current growth trends. In addition, there are no other existing hospitals in the area; nor are there any other analogous projects. For this reason, the list of projects method was not used. For purposes of the cumulative traffic analysis, a 10 percent growth factor was applied to account for anticipated development. For potential cumulative impacts that are more regional in scope (e.g., air quality, greenhouse gas emissions, and biological resources), planning documents were additionally used in the analysis.

6.1 Plans Considered for Cumulative Effects Analysis

This cumulative analysis relies on regional planning documents and associated CEQA documents to serve as an additional basis for the analysis of the broader, regional cumulative effects of the project, such as air quality, biological resources, and global climate change. The regional planning documents used in this analysis include: the San Diego Air Pollution Control District Regional Air Quality Strategy (RAQS), San Diego Association of Governments' (SANDAG) RCP, and the City of Chula Vista General Plan Update. These plans are discussed throughout Chapter 5.0, Environmental Impact

Analysis, and are incorporated by reference in the appropriate sections of the cumulative analysis below.

6.1.1 Land Use

The project, combined with reasonably foreseeable future projects, would not have the potential to physically divide an established community. Neither the project nor any of the cumulative projects would combine to result in project features that would have the potential for physical division of the community. The project does not involve the introduction of new infrastructure such as major roadways to the area, which would interfere with the connectivity of the surrounding neighborhoods. As a result, cumulative impacts related to physical division of a community would be less than significant.

As described in Section 5.1, Land Use, the project is subject to the PQ land use designation in the City's General Plan, and the East Planning Area, Master Planned Communities Subarea under the Land Use and Transportation Element. Zoning for the Ocean View Tower is Administrative and Professional Office (C-O) and includes a P modifying district, which indicates that the project is subject to Precise Plan. The Precise Plan is specific to the project and would allow the proposed hospital tower to reach a height of 110 feet 9 inches, which would exceed the maximum allowable height under the standard C-O zone. Upon approval of the Precise Plan, the project would be consistent with the PQ land use designation and C-O zoning. As the proposed land use is consistent with the General Plan with approval of a Conditional Use Permit (CUP), Design Review, and adoption of a Precise Plan, no conflicts with applicable land use plans, policies, or regulations would occur and would not contribute to land use conflicts associated with development in the cumulative study area. Cumulative projects would similarly be required to obtain required land use approvals. As a result, cumulative impacts associated with conflicts with applicable land use plans policies or regulations would be less than significant.

The project site is not located within or adjacent to any Multiple Species Conservation Program (MSCP) preserve areas. Thus, the project would not conflict with an adopted MSCP or Habitat Conservation Plan. As the project would have no impact related to MSCP and cumulative projects would be required to demonstrate consistency with the City's Multiple Habitat Conservation Program, cumulative impacts would be less than significant.

6.1.2 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 shown in Figure 6-1, no cumulative projects have been identified within the immediate vicinity of the project.

As discussed in Section 5.2, the project site is not located within the viewshed of a scenic vista and would not block views of the Pacific Ocean from any public vantage points. There are no scenic resources (e.g., trees, rock outcroppings, and historic buildings) within the project site. The Ocean View Tower would be intermittently visible from Telegraph Canyon Road, the City-designated scenic roadway and gateway; however, views would not be substantially altered due to the existing medical center development and short duration of view exposure from this roadway. The project would be consistent with the surrounding character and would result in a less than significant impact related to shadowing of neighboring properties and light and glare.

While development of the project would result in intensification of development on the medical center site, no other cumulative projects were identified in the immediate vicinity that could contribute to cumulative aesthetic effects. This, there would be no cumulative impact associated with scenic vistas, scenic resources, visual character, or light and glare.

6.1.3 Transportation and Circulation

Chapter 5.3 provides a detailed analysis of cumulative traffic impacts. For purposes of the cumulative traffic analysis, a growth factor was applied to account for anticipated development. A 10 percent growth factor was utilized to estimate cumulative project traffic based on discussions with the City Traffic Engineer. The cumulative project impacts identified in Chapter 5.3 included impacts to the following intersections and street segments:

Intersections

- Telegraph Canyon Road/Interstate 805 Northbound Ramps
- E. Palomar Street/Medical Center Drive
- E. Palomar Street/Heritage Road
- Olympic Parkway/Interstate 805 Southbound Ramps
- Olympic Parkway/Interstate 805 Northbound Ramps
- Olympic Parkway/Oleander Avenue
- Olympic Parkway/Brandywine Avenue
- Olympic Parkway/Heritage Road

Street Segments

- Telegraph Canyon Road: Halecrest Drive to Oleander Avenue
- Telegraph Canyon Road: Oleander Avenue to Medical Center Drive
- Olympic Parkway: Interstate 805 Ramps to Oleander Avenue
- Olympic Parkway: Oleander Avenue to Brandywine Avenue
- Olympic Parkway: Brandywine Avenue to Heritage Road

As detailed in Section 5.3.5, the project would implement mitigation measure TRAF-3 which would require the project applicant to contribute to the City's Capital Project Fund

in an amount determined by the City to be sufficient to mitigate the project's cumulative impacts. These funds would be used in conjunction with Transportation Development Impact Fee (TDIF) program funds to construct system improvements that address cumulative traffic impacts.

Other cumulative projects would be required to contribute to the City's TDIF in accordance with the Chula Vista Municipal Code Chapter 3.54 or provide direct traffic improvements if proportional to the project's impact. Thus, the project in combination with other cumulative projects would result in a less than significant transportation impact with implementation of mitigation measure TRAF-3.

Cumulative impacts related to changes in air traffic patterns would be less than significant because the project is outside of any airport influence area and could not contribute to a cumulative impact related to airport traffic patterns.

Cumulative impacts related to hazards due to a design feature and emergency access would be less than significant because, like the project, each cumulative project would be required to ensure transportation hazards are not created as part of the project design and cumulative projects would be required to demonstrate access meets Fire Department standards and can accommodate emergency vehicles. Thus, cumulative impacts related to hazards due to a design feature and emergency access would be less than significant.

Cumulative impacts related to conflicts with plans or policies addressing alternative transportation would be less than significant because no conflicts have been identified for the project, and cumulative projects would similarly be required to demonstrate compliance with applicable plans or polices.

6.1.4 Air Quality

As a regional issue, the cumulative study area for air quality impacts encompasses the San Diego Air Basin (SDAB) as a whole. Therefore, the cumulative analysis addresses regional air quality plans and policies, such as the RAQS, as well as a project's contribution to a net increase of any criteria pollutant for which the SDAB is listed as nonattainment (particulates and ozone). Past development has contributed to this condition and future development forecasted for the region would generate increased pollutant emission levels from transportation and stationary sources potentially posing cumulatively considerable and significant air quality effects.

As detailed in Chapter 5.4, the proposed project would add new hospital beds but it would not generate any additional population nor would it encourage population growth in excess of what is considered in the RAQS and applicable portions of the State Implementation Plan. The project would be consistent with the General Plan land use designation and with the growth anticipated by the General Plan and SANDAG. The

proposed project would, therefore, not interfere with implementation of the RAQS and applicable portions of the State Implementation Plan, and cumulative air quality impacts would be less than significant.

6.1.5 Greenhouse Gas

Global climate change is, by its nature, a cumulative issue. The project would generate a total of 8,565 metric tons of CO_2 equivalent ($MTCO_2E$) of greenhouse gas (GHG) emissions annually which is less than the City's 10,000 $MTCO_2E$ per year threshold. As described in Section 5.5, Greenhouse Gas, this screening threshold is based on evaluation performed by various air districts on permitted sources, and sets a significance threshold that would capture more than 90 percent of GHG emissions which represents a good faith effort to evaluate whether GHG impacts from a project are significant. As the project emissions would be below the City's 10,000 $MTCO_2E$ emission threshold, the project's contribution to the cumulative impact associated with greenhouse gas emissions would be less than significant. Refer to Section 5.5 for additional detail regarding the analysis.

6.1.6 Geology and Soils

Geology and soils impacts are typically localized in nature as they related to potential impacts associated with the underlying geology of the project site or other geologic conditions that can affect suitability of the site for development. As detailed in Section 5.6, Geology and Soils, all potential impacts related to geology and soils would be less than significant due to compliance with seismic design specifications, California Building Code standards, and Office of Statewide Health Planning and Development requirements in order to ensure that potential impacts related to geological hazards and soil stability would be less than significant. Preparation of a Storm Water Pollution Prevention Plan and implementation of best management practices (BMPs) would ensure that potential soil erosion impacts would be less than significant. Since geology and soils impacts are site specific and localized and there are no cumulative projects identified in the immediate vicinity of the project site (refer to Figure 6-1), cumulative impacts related to geology and soils would be less than significant.

6.1.7 Hazards and Risks of Upset

As discussed in Section 5.7, Hazards and Risks of Upset, the project would comply with all applicable state and local regulations for handling of hazardous materials. The project is not listed as a hazardous materials site compiled pursuant to Government Code Section 65962.5. No on-site or off-site recognized environmental conditions were identified that would negatively impact the project site. Federal, state, and local regulations and applicable safety standards would be adhered to during construction and operation of this and other cumulative projects. Additionally, fire safety impacts would be less than significant because the project would be constructed in accordance with

applicable building and fire codes and would implement fuel management adjacent to open space to prevent the risk of loss, injury, or death from wildfires. Other projects would also be required to adhere to City fire safety standards. Therefore, implementation of these requirements would avoid potentially significant cumulative impacts.

6.1.8 Hydrology and Water Quality

The project would not substantially or adversely impact existing drainage patterns, increase runoff, or create flood hazards on-site or downstream. The project is not located within the 100-year flood hazard area. Standard engineering practices and BMPs would be implemented to preclude potential hydrology and water quality impacts. The project would, therefore, not contribute to any cumulative hydrologic effects in the project area. Other projects would be similarly mandated to adhere to state and local storm water management requirements and engineering standards and regulations.

The project would comply with all applicable federal, state, and local water quality standards through adherence to the City's Development Storm Water Manual. The project design incorporates features to reduce pollutant discharge off-site, thus avoiding significant adverse water quality impacts to the project's 303(d) impaired receiving water, the San Diego Bay. The project has incorporated low impact development measures and source control BMPs in order to reduce the potential for pollutant discharge off-site, thus avoiding significant adverse water quality impacts following construction. Implementation of the construction BMPs and post-construction BMPs would that the project's contribution to cumulative water quality would be less than significant.

Other cumulative projects would also be required to implement these mandated water quality protection measures. Through adherence to the City's National Pollution Discharge Elimination System permit, City storm water standards, and preparation of project-specific storm water pollution prevention plans, water quality impacts would be avoided. Implementation of these requirements for the project and cumulative projects in the area would avoid potentially significant cumulative impacts. Hydrology and water quality is discussed further in Section 5.8, Hydrology and Water Quality.

6.1.9 Noise

In the project vicinity, cumulative noise impacts would generally be attributed to increases in traffic volumes. The noise analysis conducted for this EIR used cumulative traffic volumes identified for area roads in the traffic analysis. As such, the project noise analysis provides a cumulative analysis. As presented in Section 5.9, Noise, the project has the potential to contribute traffic to area roadways. In the cumulative condition, a 6 community noise equivalent level (CNEL) increase is predicted along East Palomar Road between Oleander Avenue and Medical Center Drive. In addition, a 2 CNEL increase is shown along East Palomar Street between Medical Center Drive and Medical Center Court and along Medical Center Court between Medical Center Drive and the

hospital. The project would contribute 1 CNEL or less to cumulative increases. A 1 CNEL increase in noise levels is not perceptible. As such, the project's contribution would not be cumulatively considerable.

6.1.10 Paleontological Resources

As detailed in Section 5.10, site preparation, grading, and excavation for the construction of the Ocean View Tower would likely disturb the San Diego Formation and Lindavista Formation which have a high and moderate paleontological sensitivity, respectively. This would result in a potentially significant impact. Development of cumulative projects located on geologic formations with high or moderate paleontological resource sensitivity would also have the potential for significant impacts. However, similar to the project, other cumulative projects would be required to implement paleontological monitoring during grading to ensure any underlying fossils are identified and recovered during project grading. Refer to Section 5.10.5, mitigation measure PALEO-1 for the project-specific mitigation measure that would reduce project-specific impacts to a less than significant level. Similar to the project, other cumulative projects on sensitive geological formations would be required to implement paleontological monitoring. Thus, cumulative impacts to paleontological resources would be less than significant.

6.1.11 Public Utilities

The cumulative impact analysis for public services is based on the City's General Plan and Threshold Standards. Development of cumulative projects would increase the overall demand for water and wastewater and landfill capacity. Regarding physical impacts resulting from construction or expansion of water or wastewater facilities, the project would result in less than significant impacts due to construction or expansion of facilities as only minor on-site improvements are proposed that are within the development footprint analyzed in this environmental document.

Cumulative impacts related to water supply could occur if the project's water demand in combination with other cumulative projects would exceed the planned water supply availability for the planning horizon, resulting in the need to construct new water facilities that could have significant impacts on the environment. As the project is consistent with the land use designation of the City's General Plan, the water demand projections for the project are included in the regional water resource planning documents of the San Diego County Water Authority (SDCWA), Metropolitan Water District, and in the Otay Water District's Urban Water Management Plan (UWMP). These plans identify current and future water supplies that would be adequate to serve the projected needs of the project, as well as regional water needs. In addition, the SDCWA tracks projects that utilize the accelerated forecasted growth demand increment to ensure that all forecasted growth is accounted for and that future UWMP updates include identified projects. 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 would not contribute to a significant cumulative impact.

The project's wastewater demand in combination with existing demand at the medical center would be within the approved City of Chula Vista Wastewater Master Plan wastewater volume for final build-out of the medical center site. 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 and identifies facility improvements necessary to support the City's growth. As the project would be within the wastewater projections for the project site included in the Sewer Master Plan, it would not contribute to a cumulative impact. Additionally, other cumulative projects would be subject to City Threshold Standards for wastewater which would ensure that facilities are either consistent with the Wastewater Master Plan or provide necessary improvements consistent with City Engineering Standards. Thus, cumulative impacts related to wastewater capacity would be less than significant.

As detailed in Section 5.11, Public Utilities, the project would generate an additional 461 tons of solid waste per year of operation; however, based on remaining capacity at the Otay Landfill and compliance with applicable regulations related to solid waste, there would be adequate landfill capacity to accommodate the City's solid waste disposal needs. Cumulative projects would be subject to City requirements for recycling of demolition and construction debris, similar to the project. Thus, cumulative impacts would be less than significant.

7.0 GROWTH INDUCEMENT

California Environmental Quality Act (CEQA) Guidelines, Section 15126(d), require that an EIR discuss whether or not a project may be growth inducing. Growth inducement includes, "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." This includes a discussion of whether the project would remove obstacles to aid in population growth. CEQA Guidelines Section 15126.2(d) further states that a project is defined as growth inducing when it directly or indirectly: (a) fosters population growth; (b) fosters economic growth; (c) includes the construction of additional housing in the surrounding environment; (d) removes obstacles to population growth; (e) taxes existing community service facilities, requiring construction of new facilities that could cause significant environmental effects; and/or (f) encourages or facilitates other activities that could significantly affect the environments, either individually or cumulatively.

As indicated in the project objectives (Section 3.3), the Ocean View Tower is proposed to accommodate existing demand. This demand is exemplified by the fact that an average of 30 patients per day are currently diverted to other facilities because of a lack of beds. By providing adequate hospital services in this infill location where there is current demand and a hospital already exists, the project would reduce the need for hospital construction elsewhere.

The project would not foster population or economic growth as no new housing is proposed and new employees would be drawn from the existing employment base in the region. The proposed project would accommodate economic growth by providing services and employment opportunities for residents.

Furthermore, the project does not propose density or regulatory changes that would remove, restrict, or encourage population growth. Since the project would be consistent with the City's General Plan designations, it would not induce population growth indirectly or directly. Implementation of the project would not significantly alter the planned location, distribution, or population growth.

Finally, since the project would be located in an already urbanized area, it would not require construction of infrastructure or community service facilities nor remove obstacles to growth. Access to the site would be obtained on existing roads. In addition, the project would connect to existing public infrastructure (e.g., trunk sewers, water mains) that has sufficient capacity to support build-out of the project. The approved City of Chula Vista Sewer Master Plan identified the entire Medical Center site area and anticipates capacity levels at final build-out to be sufficient. Correspondence with the Otay Water District confirmed that existing district infrastructure is sufficient and the District would be able to provide for future demands.

8.0 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS/IRREVERSIBLE CHANGES

California Environmental Quality Act (CEQA) Guidelines Section 15126.2 (b) and (c) require that the significant, unavoidable impacts of the proposed project, as well as any significant irreversible environmental changes that would result from project implementation, be addressed in the EIR.

8.1 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 proposed 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.

As discussed in Sections 5.1 through 5.11, the project would not result in a significant impact to the environment which cannot be avoided. All of the significant impacts (i.e., other land use, landform/visual quality, transportation, air quality, greenhouse gas emissions, geology and soils, hydrology and water quality, noise, paleontological resources, and public utilities) identified in this EIR resulting from project implementation would be reduced to below a level of significance with the implementation of mitigation measures identified in the Mitigation Monitoring and Reporting Program (MMRP).

8.2 Irreversible Environmental Changes Which Would Result if the Project Is Implemented

Section 15126.2(c) of the CEQA Guidelines requires that an EIR consider significant irreversible environmental changes that would result from the proposed actions should they be implemented. According to the CEQA Guidelines:

> 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.

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 site, architectural, and landscape designs. Design considerations aimed at improving energy efficiency and reducing water use would be incorporated into the project design and would serve to reduce irreversible water, energy, and building materials consumption associated with construction and occupation of the project.

With respect to other nonrenewable resources: implementation of the project would not result in significant, irreversible impacts to biological, cultural, agricultural or mineral resources (as they are not resources that currently exist on-site). There is a potential for significant subsurface paleontological deposits to be uncovered and destroyed during grading; however, these impacts would be mitigated via requirements for paleontological monitoring during grading activities (PALEO-1).

9.0 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, therefore, not discussed in detail in Chapter 5.0 of the EIR.

9.1 Cultural Resources (Archaeological and Historic)

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. No historical structures occur on or immediately adjacent to the project site. In addition, there are no surface archaeological sites and none are expected to occur at the sub-surface level based on the boring and trenching results from the Geotechnical Investigation (see Appendix E-1). The Geotechnical Investigation states that the top five feet are generally composed of fill soils which were placed during the initial mass grading of the site in the 1970s, and later in the 1980s and 1990s. Further, the fill soils were disturbed again during the “make ready” phase of work, including the remedial grading for the Loop Road. Therefore, the subsurface soil characteristics located within the project footprint would not support undisturbed cultural deposits that would trigger a level of significance.

9.2 Biological Resources

The Ocean View Tower location is a previously graded, but currently undeveloped area in the northeast corner of the hospital campus. Since the project is located within the hospital campus, the project footprint is surrounded by existing development. Therefore, the site is not located within an area containing biological resources and thus would not have an adverse effect on candidate, sensitive, or special status species, riparian habitat or federally protected wetlands such as marsh, vernal pools, or coastal area. For these reasons, implementation of the proposed Ocean View Tower would have no impact on biological resources.

9.3 Agricultural and Forestry Resources

9.3.1 Agricultural Resources

The project site does not contain any agricultural resources, 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. Therefore, no agricultural resources including Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance would be converted to a non-agricultural use. In addition, the proposed project site is not zoned for agricultural

use and is not subject to a Williamson Act contract, as there are no lands under Williamson Act contract within the City (City of Chula Vista 2005).

9.3.2 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.

9.4 Housing and Population

The project does not propose density or regulatory changes that would remove, restrict, or encourage population growth in the area as addressed in Chapter 7.0, Growth Inducement. No housing occurs on the project site and, therefore, there would be no displacement of housing or people necessitating the construction of new housing.

9.5 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 2005). 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. The nearest MRZ is the Otay Quarry, which is located approximately 2.5 miles south of the project site. Additionally, the project site is not currently being used for mineral resource extraction. The project site is located on a developed campus within an urbanized area. Given these factors, the proposed 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.

9.6 Public Services

Public services are those functions that serve residents on a communitywide basis. These functions include fire protection, police protection, public recreational facilities, parks, and libraries.

9.6.1 Fire Protection

The City of Chula Vista Fire Department (CVFD) provides fire protection, suppression, and safety services to the City. The nearest CVFD fire station to the project site is Fire Station No. 4, located on 820 Paseo Ranchero, 1.5 miles north of the project site. As detailed in the City's Growth Management Program (City of Chula Vista 2015), the threshold standard for fire service is to respond to calls within 7 minutes in 80 percent of all cases. Considering the fire station is located only 1.5 miles away, the project would not adversely impact fire response times such that new facilities would need to be constructed. No new fire facilities would be required to serve the project; thus, no physical impacts associated with the construction of fire facilities would occur.

9.6.2 Police Services

The City of Chula Vista Police Department (CVPD) provides police protection, law enforcement, and safety services to the City. The nearest CVPD station (315 Fourth Avenue) is located 3.75 miles west to the project. As detailed in the City's Growth Management Program (City of Chula Vista 2015), the City's threshold standard for police service is to respond to 81 percent of the Priority I emergency calls within 7 minutes with an average response time of 5.5 minutes and to 57 percent of Priority II urgency calls within 7 minutes with an average response time of 7.5 minutes. The addition of a new hospital tower surrounded by existing development would not result in a measurable adverse effect on police response times due to the project's infill location. No new police facilities would be required to serve the development. Thus, no physical impacts associated with the construction of police facilities would occur.

9.6.3 Public Facilities

The project involves a new tower on an existing hospital campus and would not increase the residential population. Therefore, there would be no increase in demand for other public services or facilities such as schools, libraries, and parks.

10.0 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 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 impeded to some degree the attainment of the project objectives.

As discussed in Chapter 5.0, Environmental Impact Analysis, and Chapter 6.0, Cumulative Impacts, it was determined that the proposed project would result in significant direct and/or cumulative impacts associated with traffic and circulation and paleontology. Mitigation measures were identified that would reduce all direct and cumulative impacts to below a level of significance. In developing the alternatives to be addressed, consideration was given to the ability to eliminate or substantially reduce the identified significant environmental impacts while meeting the basic objectives of the proposed project.

As identified in Chapter 3.0, Project Description, the proposed project contains the following primary goals:

1. Provide a state-of-the-art medical center that provides the best place to receive care, practice medicine and to work, in the universe. (Sharp HealthCare's mission statement.)

2. To construct a medical center compliant with the state's Office of Statewide Health Planning and Development (OSHPD) seismic safety regulations beyond 2030 and relocate support services to compliant space, right sized for the growth of patient volumes beyond 2030.

3. To construct a seven-story, 197,696-square-foot tower with 138 single occupancy beds, 6 operating rooms with pre- and post-operating recovery spaces, sterile processing, dietary services, materials management, a loading dock, and other support services.

4. Facilitate Sharp Chula Vista Medical Center's goals of becoming a "High Reliability Organization" or "HRO" by designing and constructing the Ocean view Tower such that high-quality, patient centered care is delivered while hardwiring the highest safety standards in infection and defect prevention.

5. Facilitate the goal of Sharp Chula Vista Medical Center to achieve “Designation with Distinction – Planetree Patient Centered Hospital” - by including inspiring features such as the Ocean View Café, and calming/relaxing features such as natural lighting, family zones in the patient rooms, a chapel, meditation gardens, library and hospitality-like-finishes.

6. Construct the Ocean View Café on the seventh floor, providing high-quality fresh food in a naturally lit and inspiring setting.

7. Provide enough acute care and intensive care beds to enable the future conversion of approximately 70 of the existing semi-private (2-bed) acute care patient rooms into single occupancy rooms. This conversion drives the safety goal by reducing the chance of infection between patients.

8. Provide six state-of-the-art operating rooms, with associated support space and systems, such that the patient flow is optimized.

9. Construct acute care beds and operating rooms, in conjunction with the expansion to the Emergency Department completed in 2012, to eliminate the approximately 30 patients per month which are “overflow” and redirected to other facilities (both Sharp and non-Sharp medical centers).

10. Provide optimized space and flow for sterile processing, dietary services, and post-op support to reduce bottlenecks, increase safety, and ensure that patients who need to be admitted, are able to be admitted quickly and to this campus.

11. Reduce or eliminate the current need to divert patients when space at the Chula Vista Medical Center is not available and would reduce:

    - Number of hours per month of ambulance diversion or bypass.

    - Number of patients leaving without treatment (elopements) and leaving against medical advice.

    - Number of patients diverted to other facilities or remaining in the Emergency Department longer than four hours before being admitted.

Two alternatives to the proposed project were identified: No Project-No Build and Reduced Height.

As required under Section 15126.6(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 10.4 discusses the Environmentally Superior Alternative.

10.1 No Project–No Build Alternative

CEQA Guidelines Section 15126.6(e)(3)(B) states that the No Project–No Build Alternative "means 'no build' identify actions from the existing environmental setting is maintained." The No Project–No Build Alternative presents the scenario where the project site would remain in the existing condition and no additional hospital facilities would be constructed.

However, under this alternative, future seismic upgrades of existing hospital facilities would still be required in order to comply with Senate Bill (SB) 1953. The upgrades would result in a reduction of 39 patient beds within an approximately six-year timeframe. In the absence of a seismic retrofit prior to 2030, the existing east tower would need to be decommissioned for acute care facilities, resulting in the loss of 139 patient beds.

10.1.1 Land Use

The No Project–No Build Alternative would not require any discretionary approvals, whereas the project would require approval of a Conditional Use Permit, Precise Plan, and Design Review. In particular, this alternative would not include a new tower requiring approval to exceed the 45-foot maximum allowable building height under the standard C-O zone. However, the requested maximum height allowance under the proposed project is conditional upon design review and approval of the Precise Plan, and would not result in secondary land use impacts. Therefore, the No Project-No Build Alternative would result in less than significant land use impacts, like the proposed project.

10.1.2 Aesthetics

In the absence of new construction, under the No Project-No Build Alternative there would be no change in the visual setting on the project site. While the proposed project includes a new structure totaling 110 feet 9 inches in height (120 feet including the elevator tower), which is taller than the existing on-site structures, it would be visually compatible with the existing medical center from public viewing locations. The minimal shadow effect during the times of the summer solstice and the equinox as a result of the proposed project would be avoided under this alternative. However, the shadowing would be less than significant under the proposed project.

The level of impacts would be less than significant under both the proposed project and the No Project–No Build Alternative. Since the No Project–No Build Alternative would not change the visual setting, the proposed project would have a slightly greater aesthetic effect.

10.1.3 Traffic and Circulation

Existing and projected traffic conditions would remain unchanged with the No Project-No Build Alternative. Currently, all intersections are operating at level of service (LOS) D or better with three exceptions, which are operating at LOS E or worse. The majority of the study area roadways are currently operating at LOS C or better, with the exception of four segments currently operating at LOS D. The No Project–No Build Alternative would not add any additional trips on the existing roadways and these conditions would remain in the near-term. Implementation of the proposed project would generate 2,760 average daily traffic (ADTs), resulting in potentially significant direct traffic impacts at one intersection and along one roadway segment. In the cumulative condition, potentially significant traffic impacts are anticipated along eight intersections and five road segments. Implementation of proposed mitigation measures would reduce all traffic impacts to less than significant.

Under this alternative, no additional traffic would be added to area roadways and no mitigation would be required. Therefore, the level of traffic impacts resulting from the No Project–No Build Alternative would be less than significant and less than the proposed project.

10.1.4 Air Quality

Under the No Project-No Build Alternative, current air quality would be maintained and short-term emissions associated with grading and construction activities and long-term emissions associated with mobile and area sources resulting from the project would be avoided. While the project would create air emissions, these would be less than significant. Since the No Project–No Build Alternative would not result in construction or operation related air emissions, air quality impacts would be less than significant and less than the proposed project.

10.1.5 Greenhouse Gas

The No Project-No Build Alternative would maintain the existing level of greenhouse gas (GHG) emissions as there would be no new additional short or long-term emission sources. While the project would be the source of new GHG emissions, these would be less than the threshold of significance. Since the No Project–No Build Alternative would not result in new GHG emissions, GHG impacts would be less than significant and less than the proposed project.

10.1.6 Geology and Soils

Geologic conditions at the project site would remain unchanged under the No Project-No Build Alternative. According to the Geotechnical Investigation (see Appendix E-1), the soils on-site may be subject to liquefaction and expansion. While not an active fault,

the site is transected by several minor and discontinuous northeast trending faults. The existing east tower has a structural performance category of SPC-2, which is in compliance with the pre-1973 California Building Code (CBC). However, in order to comply with SB 1953, this facility would need to be seismically upgraded by 2030 to continue providing acute care or would be decommissioned.

The proposed project would comply with seismic design specifications, CBC standards, and OSHPD requirements in order to ensure that potential impacts related to geological hazards and soil stability would be less than significant. Both the No Project–No Build Alternative and proposed project would result in less than significant impacts associated with geology and soils. However, because no construction is proposed as part of this alternative, impacts are less than the proposed project.

10.1.7 Hazards and Risk of Upset

Under the No Project–No Build Alternative, there would be no increase in the potential for the release of hazardous materials as a result of transport, use, disposal, or accidental release because no additional healthcare facilities would be constructed.

The proposed project would result in an increase of patient care facilities, incrementally increasing the exposure of hospital staff, patients, visitors, and/or the environment to day-to-day operation and handling of hazardous materials. As the project would comply with all regulations, including the County Department of Health's Assembly Bill 3205 plan check review, potential impacts related to hazards and hazardous materials would be less than significant.

Impacts would be less than significant under both the No Project–No Build Alternative and proposed project; however, because there would be no additional facilities constructed under this alternative, the level of impacts would be considered less than the proposed project.

10.1.8 Hydrology and Water Quality

The project site would retain its current drainage patterns with the No Project-No Build Alternative. The receiving waters, the Pacific Ocean shoreline and San Diego Bay, are identified on the state's current list of impaired waters and the No Project–No Build Alternative would not result in any increase to pollutants that would further impair these waters.

The proposed project has been designed to utilize existing on-site drainage facilities and not substantially alter on- and off-site drainage patterns. Thus, the level of impacts would be less than significant under both the No Project–No Build Alternative and the proposed project. However, because there would be no change in the hydrology or water quality

under the alternative, the level of impacts of this impact would be considered less than the proposed project.

10.1.9 Noise

Under the No Project–No Build Alternative, retention of the existing conditions would avoid any new construction or operational related noise levels that are largely attributed to existing off-site traffic in the area. There would be no increase in traffic or associated noise, and there would be no new sensitive receptors exposed to increased noise levels.

Under the proposed project, the primary operational noise sources would be the exhaust stack located on the roof of the seven-story tower and mechanical noise sources associated with 11 roof-mounted air handler units. However, exterior and interior noise levels would be less than the applicable City thresholds.

The level of impacts would be less than significant under both the No Project–No Build Alternative and proposed project. Because no new noise sources would occur under this alternative, noise effects would be less with the alternative compared to the proposed project.

10.1.10 Paleontological Resources

In the absence of grading under the No Project-No Build Alternative, there would be no potential to uncover paleontological resources within any fossil-bearing formation on-site. Any unknown buried resources would remain buried. The proposed project would result in grading and excavations within formations of high and moderate paleontological sensitivity which requires mitigation during construction to reduce potential impacts. The level of impacts would be less than significant under both the No Project–No Build Alternative and proposed project. Because there would be no grading or excavations, potential impacts to paleontological resources would be avoided under the No Project-No Build Alternative.

10.1.11 Public Utilities

The No Project-No Build Alternative would not affect existing water, wastewater, or solid waste facilities, as services would continue as they are today. While the proposed project would increase demands on water, wastewater, and solid waste facilities, impacts would be less than significant. Because no additional development would occur under this alternative, impacts to public utilities would be less than significant and less than the proposed project.

10.2 Reduced Height Alternative

The Reduced Height Alternative would result in construction of a three-story tower (i.e., 45 feet) within the same footprint as the proposed project to include: 46 patient beds

(including 10 intensive care unit beds), 6 operating rooms with pre- and post-operational support; sterile processing; dietary services; material management; dock; morgue; and pharmacy.

The layout would be similar to the proposed project, however, with a reduction in overall patient room and a corresponding decrease in square footage designated for the additional hospital support components. The first level, mostly subterranean, would include sterile processing, material management, other support services such as the morgue, and dietary services. The ground level would include the new lobby, reception, gift shop, intensive care unit rooms, the six new operating rooms, pre-operational rooms, and post-anesthesia care unit, similar to the proposed project. The third floor would include 36 patient beds as well as family waiting areas, staff lounge, nurse station, and other supporting uses.

The existing east tower would require future seismic upgrades by 2030 in order to comply with SB 1953. Under this alternative, these upgrades would not be feasible because the number of beds lost during the upgrade process (44 beds) would not offset the number gained under this alternative (36 beds). Therefore, in the absence of a seismic retrofit prior to 2030, the existing east tower would be decommissioned for acute care facilities, resulting in the loss of all existing 139 patient beds.

10.2.1 Land Use

The Reduced Height Alternative would reduce land use impacts compared to the proposed project. This alternative proposes a reduction in building height of patient tower and a corresponding reduction in the number of available patient care facilities. Under this alternative, a three-story tower would be constructed which translates into 36 patient beds, 10 intensive care unit beds, operating rooms with pre- and post-operational support; sterile processing; dietary services; material management; dock; morgue; and a pharmacy.

The Reduced Height Alternative would not require the City to adopt a Precise Plan for an increase in allowable building height limits because construction under this alternative would be limited to 45 feet. The project area is zoned C-O-P. The C-O is compatible with existing use and includes a height limitation of 45 feet. The proposed project would require the City to adopt a Precise Plan that would allow for a maximum height of 110 feet. However, the requested maximum height allowance under the proposed project is conditional upon design review and approval of the Precise Plan, and would not result in secondary land use impacts. Therefore, the land use impacts under the Reduced Height Alternative would result in less than significant and less than the proposed project.

10.2.2 Aesthetics

The Reduced Height Alternative would result in incrementally reduced aesthetics impacts compared to the proposed project. Due to the reduction in building height proposed as part of this alternative, intermittent views of the project from public viewing areas would be avoided. Additionally, the minimal shadow effect during the times of the summer solstice and the equinox would also be reduced. However, these impacts are less than significant under the proposed project.

The level of impacts would be less than significant under both the proposed project and the Reduced Height Alternative. Since this alternative proposes a decrease in building height of 65 feet, the proposed project would have a slightly greater aesthetic effect.

10.2.3 Transportation and Circulation

Using the Reduced Height Alternative would result in a total of 920 ADTs, which represents a 67 percent reduction in trip generation compared to the proposed project.

Implementation of the proposed project would result in potentially significant direct traffic impacts at one intersection and along one roadway segment; and cumulative impacts along eight intersections and five road segments. Implementation of proposed mitigation measures would reduce all traffic impacts to less than significant.

Because this alternative would decrease traffic on area roadways compared to the proposed project by 67 percent, potential direct and cumulative impacts to traffic and circulation would correspondingly decrease. Therefore, the level of traffic impacts resulting from the Reduced Height Alternative would be less than significant and less than the proposed project.

10.2.4 Air Quality

Like the proposed project, construction of additional hospital facilities under the Reduced Height Alternative would result in short-term emissions associated with grading and construction activities and long-term emissions associated with mobile and area sources. Due to the reduction in available patient capacity under this alternative, and corresponding fewer ADTs on area roadways compared to the proposed project, long-term emissions associated with mobile and area sources would be incrementally reduced. These impacts would be less than significant under the Reduced Height Alternative, and less than the proposed project.

10.3.5 Greenhouse Gas

The Reduced Height Alternative would result in incrementally less GHG emissions as compared to the proposed project. As with the proposed project, because development would occur in a previously undeveloped area, implementation of this alternative would

result in an obvious change to the existing GHG emissions from the existing condition. Like the proposed project, through regulatory compliance, both the proposed project and the Reduced Height Alternative would ultimately require reduction in GHG emissions. It is anticipated that development under this alternative would result in an incremental reduction of GHG emissions; therefore, impacts would be less than significant and less than the proposed project.

10.3.6 Geology and Soils

Buildout of the Reduced Height Alternative would disrupt expansive soils and result in potential landslides. Because damage can occur to structures, new development is required to conform to current seismic design specifications, CBC standards, and OSHPD requirements in order to ensure that potential impacts related to geological hazards and soil stability would be less than significant. Additionally, under this alternative, the existing east tower would need to be seismically upgraded by 2030 to continue providing acute care or would be decommissioned. Like the proposed project, development under the Reduced Height Alternative would be regulated by these standards. Therefore, impacts associated with geological risks would be generally the same as with the proposed project and less than significant.

10.3.7 Hazards and Risk of Upset

Impacts to hazards and risk of upset under the Reduced Height Alternative would be incrementally less than those of the proposed project. Buildout of this alternative represents a decrease in the number of patient care facilities compared to the proposed project, incrementally decreasing the exposure of hospital staff, patients, visitors, and/or the environment to day-to-day operation and handling of hazardous materials. As with the proposed project, this alternative would comply with all regulatory plans and policies, which would preclude significant impacts relative to hazards and risk of upset. At the local level, the project would also comply with the County Department of Health's Assembly Bill 3205 plan check review in order to ensure that potential impacts related to hazards and hazardous materials would be less than significant. Therefore, impacts associated with hazards/risk of upset resulting from this alternative would be less than significant and less than the proposed project.

10.3.8 Hydrology and Water Quality

Like the proposed project, buildout under the Reduced Height Alternative would utilize existing on-site drainage facilities and not substantially alter on- and off-site drainage patterns. Because development under this alternative would occur within the same building footprint, impacts would be similar to the proposed project and less than significant.

10.3.9 Noise

While fewer stories would be constructed under the Reduced Height Alternative, short-term construction noise would occur; however, like the proposed project, regulations on equipment and hours of operations would ensure that construction noise impacts would be less than significant.

Traffic noise and change in ambient noise would be less than the proposed project because traffic volumes would not increase to the level of the proposed project. Therefore, overall, noise impacts would be less than significant and less than the proposed project.

10.3.10 Paleontological Resources

Impacts to paleontological resources under the Reduced Height Alternative would be similar to the proposed project. Development of the project area has the potential to impact paleontological resources which may occur on the project site due to proposed grading cuts into geologic formation with moderate to high potential to yield significant fossils. Development under this alternative would be required to implement the same paleontological mitigation measure (PALEO-1) as the project. Therefore, impacts associated with paleontological resources resulting from the Reduced Height Alternative would be generally the same as those of the proposed project and less than significant.

10.3.11 Public Utilities

Build-out pursuant to the Reduced Height Alternative would result in construction of 92 fewer patient beds compared to the proposed project, which translates to an incrementally reduced demand on public utilities. Sufficient capacity has been identified to serve the projected increase in demand on water, wastewater, and solid waste services that would result from the project and impacts would be less than significant. While there would still be a need for public utilities under this alternative, overall impacts related to the demand on such services would be less than significant and less than the proposed project.

10.3 Conclusion

A summary comparison of the proposed project to the alternatives considered is shown in Table 10-1. The following sections, 10.3.1 and 10.3.2, provide a conclusion relating to each of the alternatives, including a discussion of whether each alternative would meet project objectives.

TABLE 10-1
COMPARISON OF IMPACTS FOR PROPOSED PROJECT AND ALTERNATIVES

Environmental Issue	Proposed Project	No Project–No Build Alternative	Reduced Height Alternative
Land Use	NS	Less	Less
Aesthetics	NS	Less	Less
Transportation and Circulation	SM	Less	Less
Air Quality	NS	Less	Less
Greenhouse Gas	NS	Less	Less
Geology and Soils	NS	Less	Same
Hazards/Risk of Upset	NS	Less	Less
Hydrology and Water Quality	NS	Less	Same
Noise	NS	Less	Less
Public Utilities	NS	Less	Less
Paleontological Resources	SM	Less	Same

NS: Not Significant
SM: Significant, Mitigated

10.3.1 No Project–No Build Alternative

The No Project–No Build Alternative would continue to reflect the existing conditions of the project area. Because no further development would occur, the level of impacts to all impact areas would be less than those of the proposed project.

This alternative would not attain any of the objectives of the proposed project. Specifically, this alternative would not address the need for additional capacity in order to reduce or eliminate the current need to divert patients, wouldn't facilitate Sharp's goal of becoming an HRO-designated facility, and would not provide updated acute care facilities including private patient rooms and updated operating rooms. The hospital is currently at capacity and development under this alternative would not address the need to serve the approximately 30 patients per month which are "overflow" and redirected to other facilities (both Sharp and non-Sharp medical centers).

This alternative would not facilitate the goal of achieving the designation as a "Planetree Patient Centered Hospital" because this alternative would eliminate integral features such as the ocean view café, as well as calming/relaxing features such as natural lighting, family zones in the patient rooms, a chapel, meditation gardens, library and hospitality-like finishes.

Under this alternative, the significant SB 1953 compliance issues would not be addressed and some of the central services currently come from a "non-compliant" structure that will need to be corrected by 2030. The seismic upgrades required under this alternative would take approximately six years to complete and would result in a loss of 44 beds. Without the seismic upgrades, this portion of the hospital would be decommissioned in 2030, resulting in a loss of 139 beds.

As such, this alternative would not meet any of the project objectives or the projected patient needs within the 30-year planning horizon without having to build additional facilities.

10.3.2 Reduced Height Alternative

Due to the reduction in height of the proposed tower and corresponding reduction of available patient facilities, implementation of this alternative would incrementally reduce impacts associated with land use, aesthetics, traffic and circulation, air quality, greenhouse gas, hazards/risk of upset, noise, and public utilities.

Buildout of this alternative would not require the City to adopt a Precise Plan for an increase in allowable building height limits because construction under this alternative would be limited to 45 feet. However, as a result of this height restriction, the number of patient beds would also be decreased.

The hospital is currently at capacity and while this alternative would provide an additional 36 patient beds over existing conditions, it would not meet several of the project objectives related to providing sufficient patient care services through the 2030 planning horizon. Due to the reduction in development capacity under this alternative, it would not provide enough acute care facilities for the future conversion of approximately 70 existing semi-private rooms into single occupancy, an improvement which is needed to increase patient safety and reduce infection. The reduction in patient beds would also not provide the additional capacity needed to eliminate the diversion of patients to other medical facilities (both Sharp and non-Sharp).

Under this alternative, the significant SB 1953 compliance issues would not be addressed. Currently, some of the central services come from a “non-compliant” structure that will need to be corrected by 2030 or this portion of the hospital would be decommissioned from acute care use. No upgrades to the existing east tower would occur under the Reduced Height Alternative, resulting in the loss of an additional 139 patient beds. The hospital experiences shortages of beds every day, resulting in diversions of patients to other facilities and the shortage is anticipated to increase as the population in the South Bay continues to expand.

This alternative would meet some of the project objectives related to providing new and upgraded surgical, ICU, dietary, and patient facilities but not to the same degree as the proposed project. Additionally, the overall reduction in patient beds would not address the need to increase capacity needed to serve existing and projected medical services to the community within the 30-year planning horizon without having to build additional facilities.

10.4 Environmentally Superior Alternative

Although the No Project–No Build Alternative would result in reduced environmental impacts compared to the proposed project, Section 15126.6(e)(2) of the CEQA Guidelines requires identification of an alternative other than the No Project Alternative as the environmentally superior alternative. As such, the Reduced Height Alternative would be considered the environmentally superior alternative due to its potential for reducing impacts to land use, aesthetics, air quality, greenhouse gas, hazards/risk of upset, noise, and public utilities while meeting some of the objectives of the proposed project.

11.0 MITIGATION MONITORING AND REPORTING PROGRAM

Public Resources Code Section 21081.6(a)(1) requires that a mitigation monitoring and reporting program (MMRP) be adopted upon certification of an EIR to ensure that the mitigation measures are implemented. The mitigation monitoring and reporting program specifies the mitigation measures, the entity responsible for monitoring the program, and when in the process it should be accomplished.

The proposed Ocean View Tower project as described in this EIR focused on issues determined to be potentially significant by the City. The issues addressed in the EIR include land use, aesthetics, transportation and circulation, air quality, greenhouse gas, geology and soils, hazards and risks of upset, hydrology and water quality, noise, paleontological resources, and public utilities. After analysis, potentially significant impacts requiring mitigation were identified for transportation and circulation and paleontological resources. The environmental analysis concluded that all of these significant and potentially significant impacts could be avoided or reduced through implementation of recommended mitigation measures.

The MMRP for the project is under the jurisdiction of the City of Chula Vista from which the Director of Development Services and the City Clerk are the designated custodians of these documents and the materials which constitute the record of proceedings upon which its decision is based. The MMRP for the project addresses only the issue areas identified as significant. The following is an overview of the MMRP to be completed for the project.

11.1 Monitoring Team

Monitoring activities would be accomplished by individuals identified in the attached MMRP table. While specific qualifications should be determined by the City, the monitoring team should possess the following capabilities:

- Interpersonal, decision-making, and management skills with demonstrated experience in working under trying field circumstances;
- Knowledge of and appreciation for the general environmental attributes and special features found in the project area;
- Knowledge of the types of environmental impacts associated with construction of cost-effective mitigation options; and
- Excellent communication skills.

11.2 Program Procedures

Prior to any construction activities, a preconstruction meeting is required and will include all parties involved in the monitoring program to establish the responsibility and authority

of the participants. Mitigation measures that need to be defined in greater detail will be addressed prior to any project plan approvals in follow-up meetings designed to discuss specific monitoring effects.

An effective reporting system must be established prior to any monitoring efforts. All parties involved must have a clear understanding of the mitigation measures as adopted and these mitigations must be distributed to the participants of the monitoring effort. Those that would have a complete list of all the mitigation measures adopted by the City would include the City of Chula Vista and the mitigation monitor representing the City. The mitigation monitor would distribute to each environmental monitor a specific list of mitigation measures that pertain to his or her monitoring tasks and the appropriate time frame that these mitigations are anticipated to be implemented.

In addition to the list of mitigation measures, the monitors will have mitigation monitoring report (MMR) forms, with each mitigation measure written out on the top of the form. Below the stated mitigation measure, the form will have a series of questions addressing the effectiveness of the mitigation measure. The monitors shall complete the forms and file it with the mitigation monitor following the monitoring activity. The mitigation monitor will then include the conclusions of the MMR into an interim and final comprehensive construction report to be submitted to the City. This report will describe the major accomplishments of the monitoring program, summarize problems encountered in achieving the goals of the program, evaluate solutions developed to overcome problems, and provide a list of recommendations for future monitoring programs. As appropriate, each environmental monitor will be required to fill out and submit a daily log report to the mitigation monitor. The daily log report will be used to record and account for the monitoring activities of the monitor. Weekly and/or monthly status reports, as determined appropriate, will be generated from the daily logs and compliance reports and will include supplemental material (i.e., memoranda, telephone logs, and letters). This type of feedback is essential for the City to confirm the implementation and effectiveness of the mitigation measures imposed on the project.

11.3 General Non-Compliance Requirements

In general, if the mitigation monitor issues a noncompliance, the project may follow three separate actions associated with the adopted conditions of approval:

- Noncompliance requiring an immediate halt to a specific task or piece of equipment;
- Infraction that warrants an immediate corrective action, but does not result in work or task delay; and
- Infraction that does not warrant immediate corrective action and results in no work or task delay.

It is the City's responsibility to take action should a noncompliance take place. If the noncompliance continues, there are a number of options the City may choose in order to further enforce the MMRP. Some methods that could be used include "stop work" orders, fines and penalties (civil), restitution, permit revocations, citations, and injunctions. It is important for all parties involved in the MMRP to understand the authority and responsibility of the project monitors.

11.4 Summary of Project Impacts and Mitigation Measures

Table 11-1 summarizes the potentially significant project impacts and lists the associated mitigation measures and the monitoring efforts necessary to ensure that the measures are properly implemented. All the mitigation measures identified in the EIR are stated herein and are subject to be modified by the City during various stages of project implementation.

TABLE 11-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE OCEAN VIEW TOWER EIR

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency
		Planning	Pre-Construction	During Construction	Post Construction	
5.3 TRANSPORTATION AND CIRCULATION						
CONSTRUCTION IMPACTS As the project construction traffic would represent over 5 percent of the traffic entering the intersection, the project construction would result in a direct impact to the Medical Center Court/Main Hospital Driveway (LOS F in AM) intersection. Intersection • Medical Center Court/Main Hospital Driveway (near-term construction traffic)	To mitigate the construction-related direct intersection impact to Medical Center Court/Main Hospital Driveway, the following shall be implemented: **TRAF-1:** Prior to the issuance of any construction-related permits, such as a demolition or grading permit, the applicant shall prepare and implement a traffic control plan during the construction phase of the project. This plan may include construction personnel directing traffic, construction start/end times which avoid peak periods, and/or other traffic reducing measures. Ultimately, measures shall be included to regulate construction traffic flow to improve intersection operations to LOS D or better, to the satisfaction of the City Traffic Engineer.	X	X	X		City of Chula Vista
The project would result in the following significant intersection and street segment impacts: DIRECT IMPACTS ~~Intersection~~ ~~• Medical Center Court/Main Hospital Driveway (near-term construction traffic)~~ Street Segment • Medical Center Court: East of Medical Center Drive (existing + project, near-term + project, and long-term + project)	To mitigate the direct operational impact to the Medical Center Court: East of Medical Center Drive street segment in the existing + project, near-term + project, and long-term + project conditions, the following measure shall be implemented: **TRAF-2:**Prior to the issuance of occupancy permits for the Ocean View Tower, the applicant shall provide eastbound left turn lanes at the Veterans Home Driveway and the West Hospital Loop Road and restripe Medical Center Court between the West Hospital Loop Road and the Main Hospital Driveway to provide a two-way left-turn lane. Medical Center Court is currently 38 feet wide, and could accommodate two 14-foot through lanes and a 10-foot two-way left-turn lane. Curbside parking along this segment is currently prohibited.				X	

TABLE 11-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE OCEAN VIEW TOWER EIR

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency
		Planning	Pre-Construction	During Construction	Post Construction	
CUMULATIVE IMPACTS Intersections • Telegraph Canyon Road/I-805 NB Ramps (near-term + project) • E. Palomar Street/Medical Center Drive (long-term + project) • E. Palomar Street/Heritage Road Drive (existing + project, near-term + project) • Olympic Parkway/I-805 SB Ramps (existing + project, near-term + project) • Olympic Parkway/I-805 NB Ramps (existing + project, near-term + project) • Olympic Parkway/Oleander Avenue (near-term + project) • Olympic Parkway/Brandywine Avenue (near-term + project) • Olympic Parkway/Heritage Road (near-term + project) Street Segments • Telegraph Canyon Road: Halecrest Drive to Oleander Avenue (existing + project, near-term + project, and long-term + project) • Telegraph Canyon Road: Oleander Avenue to Medical Center Drive (existing + project, near-term + project, and long-term + project) • Olympic Parkway: I-805 Ramps to Oleander Avenue (existing + project, near-term + project) • Olympic Parkway: Oleander Avenue to Brandywine Avenue (existing + project, near-term + project) • Olympic Parkway: Brandywine Avenue to Heritage Road (existing + project, near-term + project)	**TRAF-3:** Prior to issuance of occupancy permits for the Ocean View Tower, the project applicant shall contribute to the City's Capital Project Fund in an amount determined by the City to be sufficient to mitigate the project's cumulative impacts. These funds would be used in conjunction with TDIF program funds to construct system improvements that address cumulative traffic impacts.				X	City of Chula Vista

TABLE 11-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE OCEAN VIEW TOWER EIR

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency
		Planning	Pre-Construction	During Construction	Post Construction	
SECTION 5.10 PALEONTOLOGICAL RESOURCES						
Based on the potential to encounter fossils within formations of high and moderate paleontological sensitivity, impacts due to grading and excavation, for the project would potentially impact significant paleontological resources and mitigation measures would be required.	**PALEO-1:** Prior to the issuance of grading permits for the proposed project, the Applicant shall confirm to the Development Services Director, or their designee, that a qualified paleontologist (QP) has been retained to carry out an appropriate mitigation program. A QP is defined as an individual with a doctorate or a master's degree in paleontology or geology, who is familiar with paleontological procedures and techniques. A pre-grade meeting shall be held between the paleontologist and the grading and excavation contractors.	X	X			City of Chula Vista
	When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time. However, some fossil specimens (such as a complete whale skeleton) may require an extended salvage time. In these instances, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains such as isolated mammal teeth, it may be necessary in certain instances and at the discretion of the paleontological monitor to set up a screen-washing operation on the site.			X		City of Chula Vista

TABLE 11-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE OCEAN VIEW TOWER EIR

Potentially Significant Impact	Mitigation Measure	Time Frame of Mitigation and Responsible Party				Monitoring Reporting Agency
		Planning	Pre-Construction	During Construction	Post Construction	
	When fossils are discovered, the paleontologist (or paleontological monitor) shall recover them. In most cases, this fossil salvage can be completed in a short period of time. However, some fossil specimens (such as a complete whale skeleton) may require an extended salvage time. In these instances, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovery of small fossil remains such as isolated mammal teeth, it may be necessary in certain instances and at the discretion of the paleontological monitor to set up a screen-washing operation on the site.	X		City of Chula Vista		
	Prepared fossils along with copies of all pertinent field notes, photographs, and maps shall be deposited in a scientific institution with paleontological collections such as the San Diego Natural History Museum. A final summary report shall be completed. This report shall include discussions of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.			X		City of Chula Vista

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13.0 EIR PREPARATION

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